DIAGNOSTIC TRADE INTEGRATION STUDY

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ABBREVIATIONS AND ACRONYMS

ABTO	Association of Bhutanese Tour Operators
ADB	Asian Development Bank
APIC	Agency for the Protection of Indigenous Crafts
BACS	Bhutan Automated Customs System
BAOWE	Bhutan Association of Women Entrepreneurs
BAFRA	Bhutan Agriculture and Food Regulatory Authority
BCCI	Bhutan Chamber of Commerce and Industry
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BITC	Bhutan Innovation and Technology Centre
BOT	Build, Own and Transfer
BSB	Bhutan Standard Bureau
BST	Bhutan Sales Tax
BTC	Bhutan Trade Classification
BTM	Bhutan Tourism Monitor
CBT	Community-based Tourism
CC	Community Centre
cCPAP	Common Country Programme Action Plan
CIP	Carriage and Insurance Paid to
CPI	Consumer Price Index
CSR	Corporate Social Responsibility
DHI	Druk Holding & Investments
DRC	Department of Revenue and Customs
DTIS	Diagnostic Trade Integration Study
EBA	Everything But Arms
EDP	Economic Development Policy
EIF	Enhanced Integrated Framework
EU	European Union
EXW	Ex Work (incoterm)
FDI	Foreign Direct Investment
Forex	Foreign Exchange
FP	Focal Point
FTA	Free Trade Agreement
FY	Fiscal Year
FYP	Five Year Plan
GATS	General Agreement on Trade in Services
G2C	Government to Citizen
GDP	Gross Domestic Product
GINI	Coefficient for Income Inequality
GMP	Good Manufacturing Practices
GNH	Gross National Happiness
GNHC	Gross National Happiness Commission
GNI	Gross National Income
GSP	General System of Preferences
HACCP	Hazard Analysis Critical Control Point
HDI	Human Development Index
HRD	Human Resource Development

IFOAM	International Federation of Organic Agriculture Movements
IBRD	International Bank for Reconstruction and Development
ICOR	Incremental Capital Output Ratio
ICT	Information and Communication Technology
IDA	International Development Association
IFC	International Finance Corporation
IIAs	International Investment Agreements
IPA	Investment Promotion Authority
IPR	Intellectual Property Rights
ISO	International Organization for Standardization
ISP	Internet Service Provider
IT	Information Technology
ITeS	Information Technology enabled Services
L/C	Letter of Credit
LDC	Least Developed Countries
LIBOR	London Interbank Offered Rate
LLDC	Landlocked Developing Countries
LOT	Liaison Office for Transit
MDGs	Millennium Development Goals
MFA	Multi Fibre Arrangement
MFN	Most Favoured Nation
MoAF	Ministry of Agriculture and Forests
MoEA	Ministry of Economic Affairs
MoF	Ministry of Finance
MoL&HR	Ministry of Labour& Human Resources
MoU	Memorandum of Understanding
MSMEs	Micro, Small and Medium Enterprises
MTEF	Medium Term Expenditure Framework
NABL	National Accreditation Board for Testing and Calibration Laboratories (of India)
NES	National Export Strategy
NEC	National Environment Commission
NFTL	National Food Testing Laboratories
NPPC	National Plant Protection Centre
NSB	National Statistical Bureau of Bhutan
Nu	Ngultrum
OECD	Organization for Economic Cooperation and Development
ODA	Official Development Assistance
OGTP	One Gewog, Three Products
PAR	Poverty Analysis Report (of the National Statistical Bureau of Bhutan)
PDO	Protected Denomination of Origin
PPP	Public Private Partnership
PRSP	Poverty Reduction Strategy Paper
PTA	Preferential Trade Agreement
REAP	Rural Economic Advancement Programme
RGoB	Royal Government of Bhutan

RKC	Revised Kyoto Convention
RMA	Royal Monetary Authority
RSTA	Road Safety and Transport Association
RTA	Regional Trade Agreement
RTM	Round Table Meeting
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Area
SATIS	South Asian Agreement on Trade in services
SMEs	Small and Medium Enterprises
SMTQ	Standard, Metrology, Testing and Quality
SQCA	Standard Quality and Control Authority
SPS	Sanitary and Phyto-Sanitary
TCB	Tourism Council of Bhutan
TEU	Twenty Foot Equivalent Unit
TRIPS	Trade-related Aspects of Intellectual Property Rights
TRTA	Trade Related Technical Assistance
TSA	Tourism Satellite Account
UCP	Standard Uniform Custom and Standards for Documentary Credit
UNDAF	United Nations Development Assistance Framework
UNCTAD	United Nations Conference on Trade and Development
UNTDED	United Nations Trade Data Elements Directory
USP	Unique Selling Proposition
WCO	World Customs Organization
WDI	World Development Indicators (of the World Bank)
WIPO	World Intellectual Property Organization
WTI	World Trade Indicators
WTO	World Trade Organization

GLOSSARY

Dzongkhag	District
Gewog	Block
Lyonchhen	Prime Minister
Tshechu	Festival

Currency equivalents

(Exchange rate effective May 2011)

Currency unit: Ngultrum (Nu)

Nu 46.6 = $ 1, rounded to 46 in this report

Government fiscal year

July 1-June 30

FY before a calendar year denotes the year in which the fiscal year ends,

e.g. FY2011 ends 30 June 2011

PREFACE

The Royal Government of Bhutan has already taken steps to mainstream trade into its National Development policies by recognizing trade as an essential cross-sector component in the process of pursuing its core strategies for poverty reduction in the country. The Five Year Plan and the Economic Development Policy 2010 recognize trade as a critical ingredient for poverty alleviation and sustained economic growth respectively. The core strategies of the trade sector in the 10th Five Year Plan include diversification of export base and markets, trade liberalization, private sector and infrastructure development and institutional and professional capacity development.

The Diagnostic Trade Integration Study (DTIS) was a timely exercise as the study consolidates the steps already taken to mainstream trade into the national development policies. The DTIS Report was prepared in 2011 under the auspices of the Enhanced Integrated Framework with UNDP Bhutan as the main facilitator. The Report was val idated in January 2012 by various stakeholders.

The DTIS Report is in two volumes. These are (i) Main document with Executive Summary and Action Matrix, and (ii) National Export Strategy. The objectives of the DTIS Report are to: (i) understand better the macroeconomic environment and the challenges to the country's integration in the international economy; (ii) analyze the performance of trade in goods and services; (iii) evaluate the investment climate; (iv) identify opportunities for trade in key sectors with export potentials; and (v) assess the institutional capacity.

The Report clearly charts out trade constraints and opportunities and course of action to remedy constraints and seize opportunities in the form of action matrix. The implementation of action matrix will no doubt enhance the contribution of trade to the national GDP and improve sectoral coordination. It will also create necessary trade capacity to generate a broader and more diversified export portfolio and markets.

The Ministry of Economic Affairs would like to express our deep appreciation to various government agencies, private sector and NGOs for their sincere effort to bring out this comprehensive Report. The UNDP Bhutan, UNDP Trade & Human Development Unit Geneva, ElF Executive Secretariat, UNOPS and other ElF partner agencies deserve special appreciation for their substantive support in the preparation of the Report. The Ministry is also grateful to Mr. Georges Chapelier and his team for their dedicated and professional work. Finally, the Ministry wishes to thank the ElF National Steering Committee Chairman and its members, Mr. Sonam P. Wangdi, Director General/Elf Focal Point and the officials of the National Implementation Unit in the Department of Trade for their contribution.

We look forward to active participation of the development partners, private sector and other stakeholders in implementing the DTIS Report successfully.

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EXECUTIVE SUMMARY

1. Country background

The Kingdom of Bhutan is located in the eastern Himalayas. It is a country roughly the size of Switzerland, with an estimated population of 700,000, of which 64 percent live in rural areas. Bhutan is landlocked, bordered to the north by the People's Republic of China and to the west, south and east by India. The topography is extremely uneven, characterized by high, sheer mountains, deep forests and tumultuous rivers. Bhutan has one of the most intact and diversified ecosystems in the world. In recent years, Bhutan's political system has peacefully evolved from a monarchy into a democratic constitutional monarchy. This process was completed in 2008 by the parliament's adoption of the Constitution. The next legislative elections are scheduled for 2013.

Bhutan's growth and poverty reduction strategy is underpinned by a unique national philosophy based on the concept of Gross National Happiness (GNH). The GNH strives to balance spiritual and material advancement and is organized around four pillars: sustainable and equitable economic growth, good governance, the preservation and sustainable use of the environment and Bhutan's rich cultural heritage, values and emotional needs. These four pillars embody the guiding principles for national policies in Bhutan. In January 2008, the Planning Commission was renamed the Gross National Happiness Commission (GNHC). The Commission ensures that GNH is firmly embedded into policies and that proper coordination is undertaken to ensure the implementation of plans and programmes. It provided guidance for the preparation of the 10th Five Year Plan, 2008-2013, (FYP), which is the Poverty Reduction Strategy Paper, and the Economic Development Policy (EDP) which covers the period 2011-2020. Work is currently underway to prepare the 11th FYP, which will start in 2013.

2. Performance of the economy

2.1. Growth path of the economy

Over the last 30 years, the economy has grown steadily at a rate of 7 percent per year. During this time, the primary sector fell by half (21.2 percent of GDP in 2008) while the real GDP of the secondary sector has grown to nearly 40 percent of the Gross Domestic Product (GDP). The tertiary sector has increased moderately, but the composition of sectors comprising it has changed drastically due to the growth of the tourism sector. The labour market has not followed these structural changes and 64 percent of the active population is still to be found in the primary sector.

There are various logistical and technical barriers to trade development and diversification. However, the primary obstacle is not the demand side, but the development of the supply side. Access to the Indian market is completely open as part of one of the most liberal trade agreements in the world, while as a Least Developed Country (LDC), Bhutan already has duty-free and quota-free access to European and US markets. Bhutan's trade

constraints lie therefore not in market access, but principally in its small domestic market, the limited capacity of entrepreneurs, and difficulties in transporting goods. These difficulties are due to several factors: the country's mountainous topography, its poor quality road network, its distance from major markets, and the need for exporters to cross India and/or Bangladesh to gain access to sea ports. Apart from these supply-side constraints, market entry barriers stem from the structural characteristics of supply chains and markets.

The first hydropower plant was commissioned in 1986. It was the beginning of deep, rapid and structural changes. During the 9th Five Year Plan, 2003-2008, the economy expanded at an average annual growth rate of 9.5 percent. Growth was driven by a cycle of hydropower investments, followed by the sale of electricity, investments in infrastructures and basic services -roads and feeder roads, rural electrification, communications, health and education- as well as by the rapid development of high-end tourism. Another benefit of the expansion of hydropower resources has been the development of energy-intensive industries - cement, ferro-alloys, carbides - in response to the availability of cheap energy and the possibilities of exporting to India. The donor community strongly supported the efforts of the Royal Government of Bhutan (RGoB), financing a large part of the investment budget. It is estimated that in 2009 over 82 percent of the total capital expenditure was financed by external grants and loans. India alone accounts for more than 70 percent of budgetary grants to Bhutan during the 10th FYP.

2.2. National growth strategy

The cornerstone of Bhutan's development strategy is its exceptional relation with India and that country's huge and fast developing market. The Bhutanese economy is deeply integrated into this market through trade, a Free Trade Agreement (FTA) and a currency peg at par of the Ngultrum with the Indian rupee.

One of the RGoB's objectives for the present decade is to develop new hydropower projects that would result, by the year 2020, in a combined power capacity of 10,000 MW - seven times the current capacity. As in the past, the financing of these plants will comprise a mix of grants and loans from India. This hydropower capacity would be sufficient to ensure economic self-sufficiency. Other major objectives are to diversify the economy, targeting services and products with *high value and low volume* which have a strong potential for accelerated growth, notably tourism, Information and Communication Technology (ICT) and IT-enabled industries, cultural industries, construction and high-value niches for commercial and organic agricultural products. The development of a "Brand Bhutan" is part of the strategy: services and goods will be green products with limited impact on the environment. Competitiveness will be supported by different measures, including cutting transaction costs by developing special economic zones, industrial estates and dry ports. Part of this transformation strategy is the "G2C" (Government to Citizen) initiative which aims at streamlining administrative processes.

To diversify and broaden its economic and export base in a manner consistent with its

unique development paradigm, Bhutan is also trying to position itself strategically in a number of high-value niche exports. These niches can be targeted both as a source of livelihood, particularly for the rural population, and as export commodities. Examples include handmade textiles and other handicraft manufactured goods, as well as forest-based products such as mushrooms, medicinal plants, and plants for the extraction of essential oils. These niche sectors could also provide employment for women and build upon their traditional knowledge. Critical to seizing these opportunities are policy options and models for integrating Bhutanese small agricultural producers into global supply/marketing chains in a sustainable manner.

In terms of macroeconomic policies, the budget deficit in FY 2010 is estimated at about 6 percent of GDP, higher than previously planned. The fiscal deficit in FY 2011 is estimated at 4.4 percent of GDP, reflecting an increase in civil servant wages effective in January 2011. The RGoB's policy is to limit the overall deficit (including grants) to less than 5 percent of GDP. Treasury bills (T-bills) were introduced last year to finance the resource gap.

The overall Balance of Payments, though lower than the previous year, continued to be positive in FY 2009/10 as a result of adjusting current transfer receipts and net inflows in the capital and financial account. Despite substantial current transfer receipts, deterioration in both the service and income accounts contributed to a larger current account deficit. The trade deficit grew to 22.8 percent of GDP, driven by a sharp growth in merchandise imports (machinery, mechanical equipment and appliances as well as base metal and base metal products)[1]. In the financial account, capital transfers increased during the year due to substantial capital grants from the Government of India. Likewise, Foreign Direct Investment (FDI)-related flows continue to grow. The current account is projected to worsen during the 10th FYP due to an increase in the trade deficit and the interest payments for hydropower plants.

The external debt is projected to increase during the 10th FYP, driven by borrowings for new hydropower projects. The debt-to-GDP ratio is projected to rise from 54 percent in 2008/09 to about 80 percent by 2013, at the end of the 10th FYP. Nearly 98 percent of the country's debt is external, owed to India and serviced automatically through hydropower receipts. The external debt service ratio as a share of exports of goods and services is expected to decline to below 13 percent during the 10th FYP. A joint IMF/World Bank Debt Sustainability Analysis (DSA) suggests a moderate risk of debt distress over 2008/09 and 2028/29.

The integration of Bhutan into the international economy is weak and explains why the country was little affected by the global crisis of 2009. However, the downturn depressed (i) the steel and ferro-silicon industries, as the demand and prices for their products contracted in India, and (ii) tourism, a key source of foreign currency. In 2010, the economy rebounded to the levels of 2008. Results achieved during the first trimester of 2011 show that the economy is back on a growth path.

1 *Royal Monetary Authority of Bhutan (RMA) 2011, Annual Report 2009/10*

2.3. Vulnerabilities and strengths

2.3.1. Narrow fiscal base and over-reliance on hydropower and ODA

Bhutan's narrow fiscal base, combined with an over-reliance on hydropower, constitutes one of its main vulnerabilities. More than 80 percent of capital expenditures are financed by grants and concessionary loans. The lack of predictability of aid flows at a 3 to 5 year horizon is a subject of concern for the RGoB, as uncertainty complicates the budget planning and execution process. Since last year, Bhutan has been ranked by the World Bank as a Lower Middle Income Country ($1,006 - $3,975 GNI per capita). As from 2015, Bhutan may be placed in the 'blend' category of countries eligible for both IDA and IBRD loans. Borrowings from IBRD will be based on prevailing LIBOR market rates. In other words, financing the development of the country will become increasingly onerous.

2.3.2. Low employment expansion

During the last decade, the employment elasticity of economic growth has been low. The rate of unemployment is about 3 percent of the active population but young people are increasingly unemployed: from 4 percent a few years ago to 13 percent in 2010.

2.3.3. Dangers of the "resource curse" and Dutch disease

The risk of leveraging expansion through hydropower, as pointed out in a speech by Joseph Stiglitz during a visit to Thimphu in 2010, is that Bhutan becomes a "rich country with a poor population", meaning that the ready availability of revenues from hydropower comes to dominate economic activity and the allocation of resources, and is not used to further the ends of development. The entrenchment of resource rent-seeking activity is often associated with the "resource curse", whereby the export of an abundant commodity becomes a burden on the domestic economy, excluding other activities. Opportunities to extract rent can generate corruption as businesses seek political favour and regulatory change.

Dutch disease is a common contributor to another aspect of the resource curse, whereby a resource-driven appreciation of the currency makes non-resource exports less competitive. However, this is unlikely in Bhutan whilst the Ngultrum is pegged to the rupee. Moreover, other factors further protect the Bhutanese economy from the effects of Dutch disease: (i) foreign investment in mining is banned, while there are strong limits on hydropower investment, largely for environmental reasons, (ii) corruption is scarce and the public service motivated and capable, and (iii) the development policies articulated in the EDP – i.e. boosting competitiveness through investments in education and infrastructure, and investing heavily in high-end tourism and IT enabled services – should be an adequate response for reducing the potential threat of Dutch disease. However, despite these advantages, trade policy in resource-rich Bhutan should take account of the so-called "resource curse" in years to come.

2.3.4. Demographic dividend: a window of opportunity

Bhutan is at a tipping point: the annual population growth has declined from 2.9 percent in 2000 to 1.5 percent in 2009. This means that over the coming years, the relative weight of the productive class aged between 18 and 60 years old will increase. This is a

window of opportunity during which the active population will have fewer people to feed and care for and more resources freed for investment. This demographic dividend will be reinforced by migration from rural areas to towns, an on-going trend. The development outcome of these changes will depend on the capacity of the private sector to create jobs.

3. Poverty, inequality and poverty-reduction policies

3.1. Nature of poverty and inequality in Bhutan

The Gross Domestic Product (GDP) experienced strong growth from 1980 to the present, and the Gross National Income (GNI) per capita is now slightly under $2,000. But not all members of society have benefited equally. In Bhutan, urban areas and western areas have benefited from GDP growth significantly more than rural areas and areas in the east of the country. According to the 2007 Poverty Analysis Report (PAR), 23.2 percent of the population was still living below the income poverty line of Nu 1,100 or $24 per month. Bhutan's Gini coefficient as measured by the PAR in 2007 was similar to that of India and Pakistan and lower than that of Thailand and Nepal. The Human Development Index for 2009 was 0.619, one of the highest in South Asia.

Disaggregating inequality shows a different picture. Within communities, inequality is quite low. Gini coefficients in rural communities are generally well below 0.30 and even in Thimphu, the area in which there is the most inequality, coefficients are not much higher than 0.30. This means that people are not likely to be much poorer than their neighbors, which is generally considered positive for social cohesion. The challenge of inequality in Bhutan is not that people are being left behind within their communities, but rather that whole communities are experiencing different growth trajectories across the country.

Poverty in Bhutan has a rural face. Around 98 percent of the poor are living in rural areas. They are concentrated in agriculture and traditional crafts, two sectors which are not positioned for rapid growth. Farms are small, often isolated. Subsistence farming is the dominant mode of exploitation. While only 8 percent of the land in Bhutan is suitable for cultivation, agriculture is still a central part of the Bhutanese economy and society. More than 59 percent of the labour force is employed in agriculture. Agriculture's relative contribution to GDP is low, at only 14 percent of Bhutan's GDP. While the agricultural population has an average income of Nu 25,000 or $450 per year, non-agricultural income is almost ten times higher at Nu 210,000 or $4,615 per year.

Given this striking difference, it is interesting to examine the underlying causes of the income disparity between agricultural and non-agricultural employment. In many other Asian countries, rising agricultural productivity lays the basis for an industrial revolution. This is the Green Revolution scenario: as farms use inputs and mechanization to produce more food more cheaply and require fewer labourers, populations are expected to move to the cities, taking paid employment in the industrial sector. However, Bhutan's unique geography, as well as its cultural and political preference for maintaining a large proportion of forest cover and its objective of "promoting organic brand", are factors that make a conventional green revolution a challenging prospect.

Bhutan's rice yields are among the lowest in South Asia. Poverty in Bhutan is correlated with lower agricultural yields.

3.1.1. Progress towards the Millennium Development Goals (MDGs)

Bhutan is on track for achieving nearly all of the MDG targets by 2015. Bhutan has already halved the number of underweight children under five, halved the proportion of people without access to sanitation and safe drinking water, and successfully controlled diseases such as tuberculosis and malaria. Nearly all goals are on track for being achieved in 2015. The areas which still need attention include the proportion of the population below the minimum level of dietary energy consumption, the ratio of females to males in tertiary institutes, HIV case detection, the contraceptive prevalence and the youth unemployment rate.

3.2. Policy environment for poverty reduction

The macroeconomic policy aims to improve general economic growth while boosting sectors which provide important livelihoods for the poor, notably agriculture, crafts and micro-enterprises. Other important initiatives in the 10th FYP that converge to create an enabling environment for the poor include increasing rural electrification and the construction of feeder roads and farm roads. A commitment has been made to provide all villages with electricity by 2013, and Community Centres (CCs) will enable rural people to connect with information, markets and other resources.

3.2.1. Agriculture

The RGoB aims to produce more food, preserve traditional communities and improve livelihoods in the sector. Developing potential synergies and economies of scale will be crucial for bolstering Bhutan's competitive advantage in agricultural products. The Minister of Agriculture and Forests (MoAF) has launched a programme known as "One Gewog, Three Products" (OGTP), which aims at identifying three products in each Gewog for which there is a known market in order to create economies of scale through coordinated scaling up of production. In 2006 the MoAF began by working with selected crops, such as lemon grass, red rice, and buckwheat. Bhutan also has the stated intention to move towards being 100 percent organic by 2020. While on aggregate Bhutan would benefit from further diversifying into higher-value commodities that have the most dynamic export potential, questions arise as to how to reconcile a focus on dynamic export crops with considerations of food security, equitable development, biodiversity conservation and cultural heritage, which play a key role in the distinctive development strategy of Bhutan.

3.2.2. Promoting traditional crafts for sustainable livelihoods

Crafts are a very important source of livelihood for poorer groups. The sector is estimated to employ over 13,000 people, contributing five percent of total employment and approximately one percent of GDP. An estimated 65 percent of the population engaged in agriculture support themselves through crafts during the non-cultivation season.

The sector depends on the local and tourist markets and faces a variety of challenges in terms of quality, price and authenticity. Competing crafts imported from neighbouring countries tend to be much cheaper and have

greater variety of saleable items. A newly formed body, the Agency for the Promotion of Indigenous Crafts (APIC) under the Ministry of Economic Affairs (MoEA), will promote the growth of indigenous crafts by providing support in the marketing, design and branding of products. It aims to create 1,500 new jobs through emphasizing innovation, marketing and design and supporting on-going temporary and permanent Bhutan craft bazaars in order to better promote crafts.

3.2.3. Creating a conducive environment for cottage and small industries

In Bhutan, this sector represents a means for the poor to benefit from access to opportunities for trade. Small and medium-sized enterprises (SMEs) and micro-enterprises in agriculture, crafts and other sectors all have a very important role to play in poverty reduction and job creation. The policy and operating environment for SMEs is improving, with strong programmes in place, particularly in the micro sector.

A variety of government bodies and civil society groups has undertaken initiatives in support of agricultural and craft producers. They provide assistance ranging from marketing platforms to support for design and innovation. One example, showing the range of support available to the crafts sector, is work by the Bhutan Association of Women Entrepreneurs (BAOWE), which is considering initiatives ranging from a Trading House brand of the South Asian Association for Regional Cooperation (SAARC) to an initiative called Women's Open Markets (WOM). The WOM programme would provide business incubation services for women entrepreneurs, including space, equipment, micro finance, and capacity building for producers, as well as resources for good quality packaging, labelling and marketing services at nominal charges.

4. Trade and investment structure and pattern

4.1. Trade

India is by far the biggest trading partner (88.7 percent of exports and 75.06 percent of imports). Bangladesh is a distant second with 3.09 percent of exports and 0.49 percent of imports in 2010. Exports to Bangladesh are primarily mandarins, apples, cardamom, fruit juices, dolomite, gypsum, coal and cement. Other trading partners are Nepal (gypsum, coal, cement and cordyceps), members of the SAARC, and countries belonging to the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). The rest of the world accounted for 8.09 percent of exports and 20.4 percent of imports in 2010. The data show a small increase in the geographical diversification of exports away from India over the past three years. Mostly this has been in the form of an increase in exports to Hong Kong (cordyceps and furniture) and Japan (ferro-silicon and mushrooms). However the destination of exports remains changeable on a yearly basis, and in 2010 the proportion of exports to countries other than India returned roughly to its 2005/06 level.

Since 1990 Bhutan has experienced a chronic trade deficit, with imports growing more rapidly than exports. In 2010, the trade deficit increased to an estimated 21 percent of GDP from 7.5 percent in 2009, with imports rising 39 percent as a result of requirements associated with hydropower works and construction in urban areas. The increase of the trade deficit,

however, is mostly related to hydropower construction. It does not reflect a long-term trend.

During the last five years, electricity, metal and mineral-related exports have all increased significantly. Electricity exports in 2010, all of which went to India, were Nu 10,411 million ($231 million), which is over a third of total exports. Among non-electricity exports, those of ferro-alloys, ferrous-silicone, calcium carbide, manganese and silicon carbide are dominant. Together, these items have come to comprise 49% of total exports and 13 percent of GDP. If steel bars, ingots and copper wire are included, the total reaches 68.7 percent of exports, nearly a fifth of GDP.

Exports of agricultural-based products and manufactured goods have gradually declined, with each accounting for under 10 percent of exports as against 15.6 percent and 20.4 percent at the beginning of the period 2004-2009. For the agricultural sector, the value of the main exports – potatoes, mandarins and apples – remained stable during the period while exports of processed food and beverages collapsed from Nu 1,866 million in 2007 to Nu 330 million in 2009.

Informal trade is officially estimated by the Royal Monetary Authority (RMA) at up to Nu 2 billion ($45 million) per year, or approximately 7 percent of official goods exported. Duty losses as a result of informal trade are likely to be minimal, given the duty-free trade agreement with India, and excise tax is only levied on domestic alcohol. However, payment of sales tax is probably being avoided. With food taxed at 5 to 20 percent, it is possible that several million dollars of revenue are lost.

Trade in services is currently small, constituting less than 5 percent of aggregate international trade. There was a provisional deficit of $22 million on the services account in 2010/11, although the deficit is projected to narrow in coming years. The International Monetary Fund (IMF) projects a deficit of $4 million in 2014/15, given the government's aim of developing services exports, principally via the development of IT and education parks.

4.2. Foreign Direct Investment (FDI)

FDI inflows began in 2002, following the first FDI policy paper. In 2010, the RGoB adopted a significantly more liberal FDI policy, based on a negative list. Nearly all sectors are now open to investors, and for the first time, a range of priority sectors are open for full foreign ownership in addition to traditional Greenfield projects. The government promotes Public Private Partnership (PPP) investment arrangements allowing foreign investors to bring expertise and resources – up to a variable percentage of the investment according to the sector – while a local investor is expected to contribute the remaining part.

According to RMA statistics, the net inflow of FDI in FY 2009/10 was 0.9 percent of GDP, corresponding to Nu 534.6 million. In FY 2011, it is estimated that FDI projects will reach Nu 1.1 billion (equivalent to $23.6 million), including the IT Park. FDI fell steadily from 2006/7 to 2009/10 and is projected to pick up roughly to 2007/8 levels in the current financial year, which is nonetheless lower than five years ago. Despite recent positive improvements in the FDI policy, it appears that the environment for FDI could be further refined and flows of FDI increased[2].

2 *The prior version of the FDI policy paper was based on*

Membership in international investment treaties would help encourage incoming investment. In recent years a new generation of bilateral and regional investment agreements has emerged, together with a growing body of jurisprudence. The core provisions include: national treatment, fair and equitable treatment, dispute settlement mechanisms and arbitration procedures and transparency. Bhutan is not a member of the three main treaties, which are: (i) the International Convention for the Settlement of Investment Disputes (ICSID), (ii) the United Nations Commission on International Trade Law (UNCITRAL), and (iii) the United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the New York Convention).

The New York Convention provides greater latitude for a member state not to enforce an award if it is considered to run against public policy, whereas the others are more binding. With the aim of providing reassurance to foreign investors, it may be worth considering membership in at least the New York Convention, if not UNCITRAL and ICSID.

4.3. Trade-related technical assistance (TRTA)

There are not many technical assistance projects aimed at supporting trade. The second phase of a trade project is being prepared by the European Union (EU) and should start operations before the end of 2011. Other initiatives include a credit line of $1.5 million that was established last year by the Asian Development Bank (ADB) in order to facilitate the financing of international trade. Ad hoc assistance is currently provided by the United Nations Industrial Development Organization (UNIDO), the Food and Agriculture Organization (FAO) and the United Nations Conference on Trade and Development (UNCTAD)[3]. In the area of trade and poverty reduction, UNCTAD and the United Nations Development Programme (UNDP) have sponsored different initiatives. In 2011, UNCTAD published a study entitled *Who is benefiting from trade liberalization in Bhutan? A gender perspective*, while UNDP issued a new National Human Development Report with a focus on climate change issues.

Other TRTA projects currently being implemented include:

- An institute for training in tourism (Austria).
- SMEs and private sector development (International Finance Corporation) (IFC), World Bank, ADB, UNDP).
- Credit line and guaranties for export (IFC, ADB and UNFCD).
- Information technology (World Bank, ADB).
- Transport (ADB, South East Asian Association for Regional Cooperation (SAARC), India).
- Rural electrification and connectivity (ADB, Japan).
- The finance and banking industry (ADB, IFC).
- Labour market and generation of employment (World Bank, UNDP).
- Competition law (UNCTAD), and
- A guide for investment (UNCTAD).

a positive list, which was more restrictive.

3 UNCTAD/FAO/IFOAM are partnering a regional Asia Project (GOMA) to promote access to the global organic market and reduce trade barriers for organic agricultural products through harmonization, equivalence and other forms of cooperation on standards.

5. Trade policy and implementation

Bhutan's economy is open, with exports accounting for an average of 38.2 percent of GDP over the last five years and imports comprising an average of 52.6 percent during the same period, meaning that trade accounted for an average of 90.8 percent of GDP over the last five years. However, despite an increase in absolute value, trade is declining as a proportion of economic output. Exports were half of GDP in 2007/8, compared with a projected 38 percent in 2011/12. Similarly, imports have fallen from 58 percent of GDP in 2007/8 to a projected 47.7 percent in 2011/12.

Bhutan's trade structure is dominated by its close relationship with India. A highly liberal bilateral Free Trade Agreement (FTA), which features no tariffs or rules of origin, means that the majority of trade is with India (nearly 90 percent of exports and three-quarters of imports) and is duty-free and quota-free. Bhutan negotiated the FTA in 1972 and the agreement is renegotiated every 10 years.

Bhutan's trade remains highly concentrated both by destination (India) and commodity exports (electricity, ferro-alloys, basic industrial manufactures and minerals). Services exports are dominated by tourism. The composition of FDI further confirms this picture. Foreign investment has aimed at a selective number of areas – ferro-alloys, hotels and resorts, and hydropower – with a considerable proportion of its value coming from India.

Bhutan has an advantage in producing capital-intensive goods owing to its ability to produce electricity cheaply for most of the year[4]. Capital-intensive industries, with a strong need of power, are significant contributors to Bhutan's GDP, employment and government revenues, and without them the pace of development would be significantly lower. The challenge will be to use identified comparative advantage to develop desired future activities. Bhutan continues to import a large amount of food to meet domestic demand. The net food balance is negative, with an overall food trade deficit totaling Nu 1.6 billion, equivalent to 2.8 percent of GDP. Projections made by the MoAF indicate a doubling of food demand by 2030. Some improvements in production efficiency are possible, particularly in paddy, but it is unlikely that Bhutan will achieve a food trade balance in the foreseeable future. It would be better for Bhutan to specialize in areas of comparative advantage, including electricity-intensive activities and tourism, and to continue to import food from India and elsewhere.

Weaknesses in high-end services have a negative impact on the performance of the economy. FDI in banking and communications could help develop these sectors, although there are restrictions under the FDI policy. Reform would be appropriate in a number of areas, particularly in telecoms, which have grown rapidly in recent years. The creation of an independent regulatory agency would help develop adequate regulatory and technical capacity for infrastructure sharing, interconnection and licensing, and provide open access to existing infrastructure using cost-based prices. The banking sector, which

4 *Suggestions that the cessation of hydropower exports during the winter months constitute a serious disadvantage are exaggerated. Bhutan runs a consistent trade surplus in electricity, while the government aims to significantly increase electricity production capacity by 2015.*

is dominated by state-owned commercial banks and at the time of writing closed to new investment, has undergone some reform in recent years. However, future financial liberalization should be tempered by the need to improve supervision and regulation.

5.1. Bilateral trade

5.1.1. India.

Whilst the government aims to take advantage of the flexibility of trading under bilateral agreements rather than multilaterally, this policy carries a number of existing and potential disadvantages. The highly liberal nature of the Indian agreement relative to trade with other countries has the potential to divert trade via India. In all countries, the avoidance of trade diversion is one of the prime reasons cited for multilateral trade liberalization. Given the absence of rules of origin or duties on Indian imports, it is quite possible that exports originating in third countries are being artificially channelled through India – and indeed customs officials confirm that there is some evidence of this. The Indian trade agreement in fact compels Bhutan to negotiate lower tariffs in any bilateral agreement that it pursues elsewhere, since other countries have an incentive to export duty-free via India. In the case of other governments and regions, the adoption of a large network of bilateral agreements can create mounting confusion and overlap: an outcome which has been labelled the 'spaghetti-bowl' due to its complex and intertwining relationships.

5.1.2. Bangladesh.

The two countries have enjoyed preferential trading arrangements since the late 1980s. Although Bhutan has allowed virtually all imports from Bangladesh without levying any customs duty from the beginning, this was reciprocated by Bangladesh only in 2010 in 18 tariff lines. The Bangladesh market potential has not been fully exploited by Bhutan. Bhutan should therefore continue to negotiate for expanding the 18 products and seek preferential tariffs on other products if Bangladesh is unwilling to exempt full duty. A discussion of Bhutanese exports-imports to and from third countries through Bangladesh ports, including the feasibility of a transit corridor, is to be found in the section on Trade Facilitation and Logistics in the present report.

5.1.3. Nepal.

The negotiation of a bilateral trade agreement began in 2010 and is making good progress, as reflected by the outcome of the second round of talks held from 24 to 25 May 2011 in Thimphu. Bhutan's exports to Nepal fell from about Nu 195.76 million in 2008 to Nu 39.68 million in 2010, i.e. by almost by 80 percent in two years, while imports are rising and were valued at Nu 585.51 million in 2010.

5.1.4. Thailand.

The two countries enjoy friendly relations and talks on a bilateral trading arrangement are proceeding. Bhutanese exports were valued at Nu 4.67 million in 2010. This figure is down from Nu 84.85 million in 2009; however, during the same period, imports rose threefold, from Nu 348.92 million in 2009 to Nu 988.10 million in 2010.

5.1.5. China.

Imports from China have been rising. They reached Nu 611.03 million in 2010 compared to Nu 487.29 million in 2009. A wide range of products is imported by sea, ranging from industrial inputs to consumer and capital

goods. In addition, there are some informal imports that enter into Bhutan from its northern frontier for which no data is available. Bhutanese exports to China are negligible. The two governments may wish to establish a bilateral trade agreement at some point in the future.

5.1.6. Rest of the world: Generalized System of Preferences (GSP).

The benefits from GSP are small for several reasons: the rules of origin are strict; various non-tariff barriers are applied, particularly on agricultural products; a certain percentage of added value is required for using imported inputs in processing; and the preference margins are diminishing due to general tariff liberalization worldwide. Bhutan's exports under the GSP in 2010 amount to about $1.86 million, of which ferro-silicon exports to Japan represent 97.20 percent, followed by mushrooms, also exported to Japan.

The European Union's General System of Preferences (GSP) and Everything But Arms (EBA) facilities have been extended to Bhutan. The GSP scheme covers about 7,000 products, of which 3,250 are allowed duty-free access and the rest enjoy lower tariffs than the most-favoured -nation (MFN) rates. However, Bhutan has been unable to make full use of this facility. The scheme has been extended until 2013, after which it will be revised. Though the objective is to reduce the number of beneficiary countries from 176 to 80, the group of LDCs will continue to benefit from the scheme.

5.2. Regional Trade Agreements

Bhutan is a founding member of both the South Asian Association for Regional Cooperation (SAARC)[5] and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)[6]. Regional cooperation under the two groupings extends over goods, services and investments. The negotiations in the services and investment sectors have not sufficiently progressed in both organizations.

The South Asian Free Trade Area (SAFTA) is considered to be the most beneficial instrument of cooperation. It aims to reduce tariffs in stages to reach 0-5 percent level by 2013, with a longer time frame for the Least Developed Countries (LDCs) to reach that goal by 2016 through a Trade Liberalization Programme (TLP)[7]. SAFTA is based on the principles of national treatment, reciprocity and mutuality of benefits, the free flow of goods between the member states through elimination of tariffs, para-tariffs and non-tariff barriers, trade facilitation and harmonization of laws, and preferential and non-reciprocal treatment by non-LDC countries of the products of the LDCs. Despite vast trade potential among the member countries, intra-regional trade represents less than 5 percent of the total trade of SAARC countries. Of this, less than half is recorded as trade under SAFTA. Countries like Bhutan, the Maldives and Nepal have not increased their exports under SAFTA[8].

One of the reasons for low trade under SAFTA is the large number of products in the sensitive

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5 *Afghanistan, Bangladesh, Bhutan, the Maldives, Nepal, India, Pakistan and Sri Lanka.*

6 *Members of BIMSTEC: Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand.*

7 *The LDC countries concerned are Bangladesh, Bhutan and Nepal. The Maldives graduated from LDC status in January 2011.*

8 *Afghanistan acceded to SAFTA in 2011.*

(negative) list. Bhutan has the fewest number of products in the list while Nepal has the most. As many as 69 products of export interest to Bhutan are not eligible for tariff concession from Nepal. The rules of origin requiring 40 percent added value (30 percent for LDCs) do not seem to be a hurdle for intra-SAARC trade. The SAARC member countries have decided to reduce the negative list by 20 percent, but no time-frame has been given to achieve this objective. SAARC countries have also signed an Agreement for Cooperation in the services sector, but the details of the specific services to be opened are yet to be negotiated. Trade in services will complement trade in goods as well as Foreign Direct Investment (FDI) in member countries.

The SAARC Agreement on Trade in Services (SATIS) covers production, distribution, marketing, and the sale and delivery of services. It follows the principles of most-favoured-nation and national treatment, although many of its obligations go beyond those of the WTO. SATIS includes a provision for preferential treatment for LDCs, but this is only a 'best endeavour' clause and is not binding. The LDCs are, however, allowed to open fewer services sectors compared with the non-LDC states. Bhutan has not yet made its services offer for negotiations.

The BIMSTEC Trade Negotiating Committee is involved in negotiations of tariff concessions on goods, customs cooperation, services and investments. Although the Agreement on Trade in Goods and the required rules of origin have been finalized, the Agreement has yet to be signed. The implementations of tariff reductions are expected to commence in 2012 and be completed by 2023. The normal track reduction list and the negative list would be reviewed every second year. Given the fast-track negotiation of 10 percent of tariff lines and the exclusion of 23 percent in the negative list, the progress is likely to be slow, and so the benefit for Bhutan may be limited. Product-specific rules on local value-added content (LVAC) have been agreed at 35 percent, with 5 percent concession for the LDCs. These rules cover 142 tariff lines under HS 2007.

Based on the foregoing analysis, the following recommendations are made:

- Give careful consideration to the unintended consequences of bilateral trade agreements, and continue to weigh the disadvantages of bilateral and regional agreements versus WTO accession. Overall it would be desirable to avoid a complex web of agreements which artificially distort Bhutan's trade relations.
- Work towards further increasing exports. The export potential to Bangladesh has not been fully realized, and both the government and private sector should contribute to this aim. The proposal for conducting a market survey in Bangladesh within the 2011-2012 fiscal year is a welcome development.
- Finalize on-going negotiations for a bilateral agreement between Bhutan and Nepal, as these countries have not benefited from SAFTA. The focus may be on non-agricultural products like minerals, metals, alcoholic and other beverages, bottled water and processed goods. The current absence of rules of origin for products like ginger, handmade paper and lemon grass oil

means that some of these may be re-exported as Nepalese products. As regards rules of origin, SAFTA allows for 70 percent import content for goods originating in the LDC member states for domestic processing. This may be the starting point for negotiations.

- Encourage private sector collaboration, in addition to a bilateral trade agreement with Thailand, in order to expand and improve Bhutan's exports to that country. More market research is required to ensure a good basis for negotiations. Potential export opportunities include mushrooms, cordyceps, and other agro-based and manufactured products as well as cultural products.
- Make more use of the Generalized System of Preferences (GSP) and Everything But Arms (EBA) schemes.
- Mobilize Aid for Trade to boost ability to adapt on the supply side and align aid flows to the priorities expressed in Bhutan's sectoral strategies, including export diversification through branding.

5.3. Multilateral trade system

The Working Party on the accession of the Kingdom of Bhutan to the World Trade Organization (WTO) was established in 1999 and its memorandum on Bhutan's Foreign Trade Regime submitted in 2003. Considerable technical work has been completed, and from published and unpublished documents it is clear that by 2007 Bhutan had achieved a relatively advanced stage in the WTO accession process. Unofficially, however, the government has expressed a desire to suspend the accession process and in the meantime pursue bilateral and regional agreements.

By staying outside the WTO, Bhutan has access to few of its benefits, whilst trading almost as if it were a WTO member since all of Bhutan's trading partners, including India, are members of WTO. The principal benefits of membership would include the avoidance of trade diversion and a 'spaghetti-bowl' of different agreements, as well as a voice in international negotiations. It should not be forgotten that the negotiation of a multitude of different bilateral agreements can lead to the entrenchment of inefficient trading relationships and the potential build-up of undesirable vested interests. Issues concerning the General Agreement on Trade in Services (GATS) would also be treated in a more development-friendly manner, as membership of the WTO would ensure that Bhutan would benefit from the capacity-building assistance that is built into the GATS and trade facilitation negotiations and potential new agreements. In addition, Bhutan would be able to participate as a full member in discussions and decision-making concerning Aid for Trade and the Standards Facility. Successful membership would, of course, depend on achieving agreement on appropriate conditions from members of the Working Party. However flexibility can be demanded from both developed and developing country members of the Working Party, particularly in light of the decision on the accession of LDCs adopted by the WTO General Council on 10 December 2002.

Any attempt to complete accession to WTO should be based on an open and fully participatory process. It may be worth having recourse to a neutral partner to help facilitate the process of building a national consensus. At least three processes are required: (i) awareness-building among civil society via the media and

NGOs and at public meetings, (ii) establishment of a mechanism for communication between negotiators and Thimphu, particularly with parliamentarians, (iii) further consultations, particularly concerning services, would be worth conducting, as although accession is partly completed, they would help to establish national ownership.

5.4. Intellectual property rights

Intellectual property policy is determined by the Intellectual Property Division (IPO), which is located within the MoEA. Given Bhutan's current suspension of WTO accession, the development of the intellectual property framework remains at a level appropriate to the pace of development so far, although it could be enhanced in light of the new objectives in the FDI policy and the Economic Development Policy. If Bhutan were to join the WTO, it is likely that the existing intellectual property framework would fall short of requirements under the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement in a number of areas, and that substantial work would need to be done to bring it up to WTO (or WTO+) standards.

The government has raised concerns about protecting its natural environment, in particular the avoidance of foreign patents on indigenous biological resources and associated traditional knowledge. Whilst Bhutan's tiny agricultural sector is unlikely to attract large market-seeking foreign investors, such caution is understandable when the appropriation of traditional knowledge or the alteration of domestic plant and animal genetic resources for agriculture and food can be irreversible. A further concern is that TRIPS would deny Bhutan the ability to raise the rate of technological development by copying products, processes and designs from other countries. Given Bhutan's close relationship with India and its desire to develop the IT sector, it is not impossible that the two countries might share technology in a way that might infringe Intellectual Property Rights (IPRs) protected in accordance with TRIPS-mandated legislation. Technology transfer will still be possible based on the flexibilities accepted under TRIPS, such as software reverse engineering, research exception in patents, and research on plant varieties for the purpose of propagating new varieties, where these flexibilities are adequately reflected in the national law.

Intellectual property legislation that better reflects domestic needs would carry a number of benefits for domestic innovative activity as well as with regard to foreign investment. While not essential to attracting all types of foreign investment, the full enforcement of existing intellectual property legislation would help achieve the objectives of the FDI policy. Enforcement of the intellectual property framework would also support domestic innovation. It is also possible that a geographical indications law could benefit Bhutan, given its desire to promote a 'Brand Bhutan' and the existence of a number of unique agricultural products, some of which are vying for organic and fair trade status. The challenges, however, should not be underestimated, and few LDCs have yet managed to achieve significant development gains using such a strategy. It is recommended that a plant-variety protection regime should be carefully drafted, so as to reconcile breeders' and farmers' rights, and to preserve benefit-sharing mechanisms for traditional knowledge.

5.5. Institutional development and trade mainstreaming

5.5.1. Institutional assessment

Responsibility for trade policy lies with the Department of Trade (DoT) within the MoEA. With staff currently numbering 35, the Department is divided into three divisions: Trade Regulation and Monitoring, Trade Negotiation, and Export Promotion. The three divisions together include a total of 15 sections and units. The existence of seven or more departments and divisions within the MoEA, plus at least nine trade-related ministries and institutions, constitutes a significant coordination challenge. Whilst the competence of civil service personnel is high, the institutional set-up is complex. Within the Department of Trade, staff is thinly spread, with an average of approximately 1-3 personnel within each of the 15 units and sections. Consultations during the DTIS mission reveal that some trade-related institutions operate separately from each other. Co-ordination could be improved.

In terms of achieving the government's major development goals - export diversification and increasing the flow of FDI towards key development objectives - two divisions need to be strengthened: the Foreign Direct Investment Division in the Department of Industry and the Division for Export Promotion located in DoT.

Currently, the FDI Division contains only three technical staff (out of seven planned); they are engaged in basic investment-related activities. No work is carried out on modern investment promotion nor on targeting that is based on an economic analysis of comparative advantages and desired areas of investment. The implementation rate of investment projects during 2011 to date is also low[9]. To sum up, Bhutan currently conducts minimal investment promotion, investor targeting or aftercare. Concerning other aspects of the FDI Division work, Government officials attend trade missions. There are also *ad hoc* links with existing and potential foreign investors, particularly through Druk Holding & Investment, with which the Investment Division has a Memorandum of Understanding (MoU) but too few regular contacts.

The FDI policy is quite restrictive and may discourage investment by creating several inoperable incentives. Foreign investors are notoriously wary of PPP-type structures, particularly in young markets with untested legal structures. The current global environment for foreign investment is very liberal and Bhutan is competing with countries with highly open investment policies. Limitations on the repatriation of funds, for example, tend to deter investors unless very carefully designed. Moreover the thresholds for minimum investment are high. Education, health, hotels and infrastructure have a minimum investment threshold of Nu 200 million ($4.44 million). This is a considerable sum for a country with a small domestic market, and it is likely to discourage investment in the very activities that are essential for development.

5.5.2. Institutional development

In FY 2011, the mobilization of FDI, although improved, was still insufficient as compared to opportunities. Likewise the increase and

9 *Although at the time of writing more had been approved.*

diversification of exports remain at a low level. Indeed, further concentration has occurred rather than diversification. This situation calls for an intervention of the administration in liaison with the private sector. It is acknowledged that the Investment and Export Promotion Divisions have only recently been created. However several of the challenges noted above could be tackled through a minimum of institutional improvement.

While inter-ministerial coordination is important, it is not sufficient in itself. A single overarching authority should be entrusted with the mandate to deal with both investment and trade and to formulate and enact policy. In Bhutan it is proposed that an Economic Development Board (EDB) be established. The EDB would operate as a statutory body, semi-autonomously from government, with the mandate of promoting investment and exports and enhancing Bhutan's ability to benefit from trade. Ideally, rather than creating a separate institution, the FDI Division and the Division of Trade Promotion would be replaced.

The Economic Development Board would undertake, inter alia, the following activities: training in trade and investment for all ministries and relevant agencies; conducting policy advocacy; image building, investor targeting and aftercare; trade promotion using the latest techniques; and reducing bureaucratic barriers to domestic and foreign investment. Technical leadership would come from the existing Departments of Trade and Industry, as well as from the Ministry of Agriculture and Forests, the Tourism Council of Bhutan, the Royal Monetary Authority of Bhutan and the Private Sector Committee. Private sector representatives could attend meetings of the Board. Creation of the Board would carry a number of advantages:

- Improved co-ordination and trade mainstreaming through the merging of a number of institutions.
- Pooling resources to help tackle existing human resource constraints.
- Better reflection of the interests of exporters and civil society through the composition of the Board.
- Better articulation of Bhutan's position for forthcoming bilateral and regional trade negotiations and better representation where possible of the demands of the private sector and civil society.
- Opportunities for greater linkages promotion: at Bhutan's current stage of development, and in view of the risks of becoming a resource-rent based economy, linkages should form a central component of development strategy.
- Increased benefit from the know-how of foreign investors, as well as their contacts for large-scale export.

During the validation workshop held in Thimphu on January 12, 2012, the proposal of an Economic Development Board was judged interesting but premature in view of institutional development. The proposal could be discussed again once the two institutions created last year - the Export Trade Division and the FDI Division - have had time to develop and lessons have been drawn from the experience.

5.5.3. Trade mainstreaming

The formulation of the Economic Development Policy and FDI policy involved most key

stakeholders. The EDP itself makes trade central to development, with specific incentives devoted to raising its contribution. The proposed establishment of education and IT parks is part of an explicit trade-related vision, in that the government is prioritizing the development of high-end services trade and that it recognizes the importance of education for trade. A competition policy is in the process of being finalized and an Enterprise Act is under preparation. The Trade Development Act is also a promising initiative although it has not yet been passed.

Yet trade mainstreaming in Bhutan could improve in a number of areas. The following actions are recommended:

- Further mainstreaming of trade into development policies. The preparation of the 11th FYP will offer a major opportunity to achieve this aim: it is essential that the Department of Trade (DoT) plays a leadership role in participating in different working groups and advocating a more active stance for trade and investments. One entry point could be the promotion of linkages between (1) domestic firms, (2) domestic and foreign firms and (3) sector policies, especially aimed at the economy's transformation.
- Fostering linkages. Government and the private sector can work together to establish "one stop centres", where entrepreneurs have access to business development services and inputs (i.e. entrepreneurship training, information, finance, quality control, networking and business counselling).
- Developing local supplier upgrading programmes in technology and skills. Such skills can help stimulate linkages between local firms and trans-national corporations (TNCs).
- Promoting and simplifying incentive schemes. Bhutan is rightly using incentive schemes in the EDP to encourage firms to collaborate with other stakeholders. It may be worth simplifying these incentives and make the schemes easier to understand. In the past, governments have used direct measures such as local content, export performance and transfer of technology requirements. Bhutan can still use these measures as it is not a member of the WTO, under which they are curtailed.
- Prioritizing health and education partnerships. The option of private partnerships with foreign companies and linkage-promotion policies could be a powerful tool for diversification and expansion of development.
- Narrowing the gap between goals and existing practice. High-end services trade, apart from the tourism sector, is still a distant prospect. Intermediate steps aimed at achieving this goal via trade are not outlined in sufficient detail in the EDP and/or other planning documents.

6. Trade facilitation, transport and logistics

6.1. Trade regulations and customs

Despite recent measures adopted to simplify import licenses, the procedures related to imports are still relatively cumbersome. It is below standard in the region and creates unnecessary barriers to trade. Automating

the licenses does not, however, solve the innate problems of complex and cumbersome procedures. To facilitate trade, the complexity of the procedures and formalities the traders have to comply with should be further reduced, in particular for manufacturing businesses. Moreover, attention should be given to the multiple fees that traders are required to pay. Some fees are calculated ad valorem whilst others are calculated on the basis of costs of services rendered. These fees, although not high at the individual level, add both costs and time.

Another bottleneck to trade is the difficulty of accessing information. From the perspective of the traders the information should be all-encompassing, descriptive rather than legislative and compiled in few documents. The traders' manual published by the MoEA is an attempt to answer this need. It requires updating and editing and a more accessible location on the Ministry's website. The establishment of a central registry for laws and regulations should be considered and maybe included in the G2C services[10].

The MoEA maintains an import control function in cross-border trade through the permit system and the landing certificate. In addition to these documents, two certificates are issued without any control activity – the "radiation" and "fit for human consumption" certificates. The lack of control turns these certificates into purely bureaucratic requirements devoid of any function. Discussions should be undertaken with Bangladesh, the requesting country, on how to deliver more effective control functions and certificates if the reasons for these controls are maintained.

6.1.1. Border infrastructure and management

There is high pressure on the border infrastructure, in particular in Phuentsholing where the majority of the traffic of imports and exports takes place. Space limitations make it currently impossible to allow a better traffic flow or to envisage a more effective design of the clearing areas, with adequate equipment and parking spaces. The clearance process for third countries is fragmented into two processes, with document processing taking place at the customs offices and the inspection process undertaken at the inspection area. There is no telecommunications and data connection between these two locations and traders complain that they frequently have to pay overtime hours to finish the clearance process once the inspection is terminated. Two projects are at present underway to ease some of the pressure: a second border gate in Phuentsholing, and the distribution and warehouse centre with clearance facilities, which is soon to be built. Completion of these projects is a priority for the Government.

The different border agencies collaborate at the working level only and collaboration is limited to specific tasks. There is no integrated clearance workflow and no sharing of data or information. Although working relationships are good, the absence of collaboration and sharing of information adds in both time and burden to the work of the traders as well as to that of customs, as the agencies have to be informed of the arrival of consignments of interest to them and documentary information needs to be verified over the phone.

10 *This fact has also been highlighted by the IFC licensing project and the ADB regulatory impact assessment project.*

6.1.2. Customs procedures and information technology

Bhutan customs legislation and practices are not aligned with modern practices such as those outlined in the Revised Kyoto Convention. Risk management is not used systematically, and there is no database of information on risks that could be used to support risk management. This leads to a high percentage of cargo traffic being inspected physically (100 percent for third cargo traffic, although with varying degrees of intrusiveness), resulting in delays in the clearance process. The possibility of allowing clearance for import and export on traders' premises should be looked into, as this would reduce traffic pressure at the border stations.

The IT system currently used by the Department of Revenues and Customs (DRC) for the clearance process provides only for semi-automated clearance and does not offer real-time linkages between the regional offices and Headquarters. It is furthermore reported to be slow and unstable. Updates cannot be easily made electronically, so that additional manual processing becomes necessary. It is also not clear how the system will be able to remain interoperable with new IT developments in the revenue department and in other agencies. An urgent priority for DRC is therefore to undertake an assessment of the limitations of the system and to determine the need to upgrade or replace it.

6.2. Transport infrastructures and services

6.2.1. Road network

Road transport is the main means of domestic and cross-border freight transport. The road network has been expanded, in particular along the main highways. This expansion will however be insufficient to accommodate the prospected increase in freight level over the next years. Low transportation speed and loading limitations will thus continue to remain a barrier and a cost factor for the economic development of the country. The southern east-west axis is the last remaining gap in the road network. Rehabilitation and improvement of the road along the southern border is a key investment for the success of the planned economic industrial zones in the Samtse, Gelephu and Samdrup Jongkhar regions. Currently, the need to transit through the Assam roads to connect between these cities and regions creates unnecessary delays and costs as the traffic is escorted by Indian customs.

Other modes of transport, such as airfreight or rail, do not play an important role for trade. Rail connections are not available inside Bhutan and the rail connection in India requires transshipment, as the Indian railway does not as yet have a railhead into Bhutan. The additional costs and the low frequency of services available outweigh potential gains from rail transportation. Airfreight does not play an important role, as only small volumes are exported. No dedicated airfreight services exist at present, and it is unlikely that a significant volume of trade will develop quickly enough to make the airfreight business attractive to private service providers.

6.2.2. Transit corridors

Bhutan is dependent on transit traffic through India for access to the sea and third-country markets. There are three main transit corridors: Phuentsholing–Kolkata, Phuentsholing–Burimari, and Phuentsholing–Birgunji. Of these, the Kolkata corridor carries the most

regular and substantial freight flows as it is used for the transit of third-country goods. The performance of this corridor is however hampered by operational delays in the port of Kolkata, a lengthy clearance procedure, and frequent strikes en route. Joint efforts by the public and private sector are needed, including better cross-border coordination, in order to remove regulatory and other constraints and to facilitate trade and the movement of cargo along this corridor. The RGoB should be proactive in promoting such a corridor approach with the support of international donors. In the short and medium term, the port of Kolkata will remain the only access to the sea for Bhutanese trade.

Alternative ports such as those of Chittagong and Mongla in Bangladesh cannot, in the short term, offer transit facilities, due to a lack of equipment and infrastructure. These ports will only become a viable gateway for imports and exports to Bhutan if a transit regime is adopted and operationalized. However, before this transit regime can be adopted, the contentious issue of costs for infrastructure to support transit traffic must first be solved, particularly as the Bangladesh road and port infrastructure, as well as border stations and logistic equipment, all require substantial investments before being able to provide quality services. The sub-regional approach for the transit regime that is being pursued at present by the Government of Bangladesh has some advantages. However, given the pace of progress in South Asia in negotiating a regional Agreement, the possibility for an interim bilateral transit Agreement with Bangladesh that would enable Bhutan to use the Chittagong and Mongla ports should be further explored.

6.2.3. Transport costs and barriers

The freight rates for transport in Bhutan are higher than in the region as a whole[11]. However, dependency on transit traffic is only one of the factors explaining the high transportation costs. Others factors include the industry's inefficiencies, in particular the lack of adequate transport and logistics services; the poor conditions of the road network, resulting in long travelling times; low and unbalanced cargo volumes; and the low level of containerization that increases handling costs.

6.2.4. Challenges for the transport and logistics industry in developing services

Although the demand for transport services has grown, the transport and logistics industry has not developed accordingly and cannot offer high-quality service. There is a lack of logistic infrastructure, unloading and loading areas, dedicated equipment such as containers, and professional handling services. The transport sector cannot compete with the Indian transporters who operate freely in the area close to the border with India and capture most of the traffic for import, export and transit. As a result, Bhutanese transporters carry only a fraction of the freight volume. This limits the economic viability of the sector and reduces the incentives for the private sector to invest.

Although the transport and logistics industry provides economic opportunities

11 *Asian Development Bank (ADB) 2011, Bhutan Transport 2040 Integrated Strategic Vision: Strategies Report Project*

for the private sector with positive effects on employment, private investment in this sector is not encouraged. Land prices for transport-related infrastructure are higher than for other businesses. There is also no opportunity for logistics training and driver training, despite the lack of skilled professionals and drivers. Specialized freight services play a pivotal role, in particular for the transport of perishable goods such as agricultural and horticultural products. If Bhutan wishes to increase its export competitiveness in these commodities it would need to develop related services, including the freight forwarding sector. Freight forwarders are quasi inexistent at this stage. As the majority of the consignments by Bhutanese traders are small to medium size, the consolidation of the services of freight forwarders would be a crucial measure for achieving economies of scale and bringing down transport costs.

6.3. Insurance and banking services

The Government of Bhutan prescribes the mandatory use of Letters of Credit (L/Cs) for foreign exchange control reasons. L/Cs may however not be the most appropriate payment method for the traders in Bhutan, and are in fact little used. The alternative - advance payment by wire transfer - is the most widely used method of payment for trade with India and third countries. However, advance payment does not offer enough security for Bhutanese traders. Experience with other methods of payment has to be gained and the impact of the different payment methods on the traders needs to be assessed.

7. Technical barriers to trade

7.1. Significance of technical regulations

7.1.1. Sanitary and phyto-sanitary measures (SPS) and quality infrastructure

The 10th FYP incorporates ambitious goals for greater commercialization of agriculture, with emphasis on organic production methods and the expansion of horticultural and non-wood forest product exports. Since neighbouring countries tend to have similar pest and disease profiles, bio-security motivated barriers to trade tend to be relatively low. On the other hand, SPS barriers to trade with industrialized countries may be very significant. Meeting the SPS import conditions of the European Union or Japan may require Bhutan authorities to demonstrate a high level of knowledge about, and control over, relevant pests and diseases. Bhutan authorities would also need to demonstrate their ability to reliably certify that exported food meets the official requirements of the importing country.

Bhutan is a net food importer. The measures in place to ensure that imported foods are safe for human consumption effectively protect Bhutanese people; at the same time they help to sustain Bhutan's reputation as a safe and healthy destination for international tourism, which is a fast-growing industry. The bio-security measures which limit the incursions of pests and diseases enable Bhutan to preserve the productivity of its agriculture-based industries while avoiding the costs of eradicating or controlling harmful organisms that might enter the country. These measures also serve to protect the unique natural ecosystems of the country.

7.1.2. Non-SPS technical regulations

Bhutan has so far concentrated on establishing norms and related regulations that are

relevant to the building and construction industry. Until now a fully elaborated SMTQ (standards, metrology, testing and quality) infrastructure has not been necessary, as Bhutan manufactures only a limited range of products for domestic consumption or export. However as manufacturing activity diversifies it will be necessary to develop relevant norms and to increase Bhutan's capacity for testing and certification.

7.2. Institutional and legal framework for SPS measures/ Technical Barriers to Trade (TBT)

7.2.1. Food security and bio-security

The Bhutan Agriculture and Food Regulatory Authority (BAFRA) was established in 2003 within the Ministry of Agriculture and Forests. It integrates within one body public sector responsibilities for most SPS-related regulatory activity. BAFRA implements its responsibilities in cooperation with other departments and commissions of MoAF: the Department of Livestock, the Department of Agriculture, including both the National Plant Protection Centre (NPPC) and the Department of Forests, and the National Environment Commission.

BAFRA is the competent authority for the coordination of all bio security-related activities. It is responsible for the issuance of export certification for agricultural products, for import control over livestock, plants and their products, and for food safety including imported and domestic products. It incorporates the National Food Testing Laboratory (NFTL). Bhutan has a substantial body of modern legislation related to SPS matters. A draft bio-safety law will be presented to the RGoB in late 2011, and the development of a bio security law is under consideration.

BAFRA has approximately 150 staff. Of these, about 15 are assigned to the central office, 11 (and 3 temporary staff) work in the NFTL, while 125 are located in the field. Of the field staff, 27 are food inspectors and about 50 are assigned to border control points.

In the DTIS, the National Plant Protection Centre (NPPC) is included under the heading of SPS infrastructure. The justification is that the plants issues managed by the NPPC are closely related to Bhutan's agricultural export ambitions. The Centre has primary responsibility for technical, as against regulatory, aspects of phyto-sanitary control. It incorporates a laboratory which was recognized in June 2011 as the National Referral Laboratory for Plant Health. The NPPC has a major role to play in facilitating increased agricultural production and exports, firstly by introducing superior genetic strains (seeds, seedlings, rootstock, etc.) that are free of pests and diseases, and secondly by assisting farmers to maintain productivity in the face of the challenges of climate change, including drought, and pest/disease outbreaks. The Centre has 29 staff in Thimphu and 3 located in the regions; surveillance activities are conducted by the Ministry's 205-strong staff of extension officers. The NPPC has a close relationship with BAFRA.

7.2.2. Standards, certification and metrology

The Bhutan Standards Bureau (BSB) is the successor to the Standards and Quality Control Authority (SQCA). The Standards Act was passed in 2010 and regulations under the Act are currently being drafted. The BSB has the responsibility for standards, metrology, and certification. It is intended that the Bureau will act as the national facilitator for organizations

seeking accreditation in relevant fields via a National Accreditation Focal Point, although it is not anticipated that the BSB will itself become an accreditation body. There are currently 45 staff members at the BSB. Of these, most have qualified as engineers. All staff are located in Thimphu.

7.3. Institutional strengths and weaknesses

BAFRA has several important strengths. These include a well-developed policy framework consistent with stated national goals; mandates for BAFRA's activities which are clear and embrace the full range of SPS responsibilities; and a substantial body of contemporary legislation to guide and support necessary regulatory programmes. Much of the required infrastructure exists as a consequence of investments by the RGoB and donors, for instance quarantine facilities at the border and laboratory buildings and equipment.

BAFRA's main weakness resides in its lack of resources. Although it is in a good position to conduct the basic regulatory activities of an official food safety/bio-security agency, it does not have enough trained staff and adequate financial resources to implement well-organized programmes. The major weakness however is the lack of senior professional staff, since the RGoB has determined that there should be no growth in the numbers of public servants during the current 10th FYP. The number of senior managers/professionals in the central office is therefore extremely limited. As a result, the Authority has little capacity with which to organize and manage its programme activities. More important, but less obvious, is the fact that BAFRA has no reserve capacity to cope with any significant food safety or bio-security emergency situation. A particular weakness is BAFRA's lack of capacity to conduct sound, science-based risk analysis. Potential risks to Bhutan's forests, for example, should be comprehensively evaluated and the results of this analysis should inform the structuring of border inspection activities and in-country surveillance.

BAFRA must also be able to support exports of Bhutanese agricultural and non-wood forest products. Although the government has identified eight priority agricultural products for increased exports, there is no evident capacity to analyze in detail the phyto-sanitary risks that may impede the achievement of this goal. Neither is there the capacity to explore the SPS barriers that may be encountered in markets beyond India and Bangladesh.

Staffing shortages also affect the National Food Testing Laboratory (NFTL). International accreditation of the NFTL depends, amongst other factors, on the maintenance of a sufficient complement of technically qualified staff. During the current critical phase of the accreditation procedure, three scientific officers have been employed on a temporary basis. Unless their employment can be continued, the Laboratory will not be able to maintain accreditation. In relation to BAFRA's food safety responsibilities, the FAO has recently concluded that the Food Act of Bhutan and its Rules and Regulations cannot be fully implemented due to practical problems and resource constraints faced by the sectors concerned.

7.3.1. Organic agriculture and bio-security

The RGoB is committed to a policy under which "organic farming will be a major focus area of the Royal Government to promote

Bhutan as an organic brand"[12]. The national framework for organic farming (2006) proposes that Bhutan will "become organic" by 2020. Organic farming is to be promoted through use of viable alternative farming methods and inputs, while the use of harmful chemical fertilizers and pesticides will be phased out. Under the National Organic Programme, a national organic standard has been drafted and is under study within MoAF. It is aligned with the international norms of the International Federation of Organic Norms (IFOAM) and the Codex Alimentarius standards for food productions and food safety (Codex). Currently there is one principal Bhutanese product that is certified by an Indian organization – lemon grass oil; other products that may potentially be sold as organic are produced in very low volume, and apparently there would be no significant premium available for them in the market place if they had organic status. Development of export markets, especially in Europe, for organic-certified sweet buck-wheat is currently under study[13].

It is agreed within the government administration that BAFRA will assume the role of the organic certifying agency for Bhutan. It is however not yet determined who will accredit BAFRA as a certifying body capable of international recognition; possibly India's National Accreditation Board for Certification Bodies (NABCB) may serve this function. There is a legal issue that the relevant RGoB authorities must address as to whether BAFRA needs new or additional statutory authority in order to serve effectively as the organic certification body. There is a further legal question as to what legal authority will prevent farmers and processors from passing off non-organic products as organic. BAFRA itself will have to follow certain processes and meet certain criteria if it is to become accredited. Part of the pre-requisites for accreditation will be the development of suitable management structures and procedures within BAFRA, and the training of BAFRA staff to process applications for certification. Considering the novelty and complexities of this development process, it would be highly desirable to formulate an action plan that would systematically identify and schedule the many steps to be undertaken.

7.3.2. Bhutan Standards Bureau (BSB)

The Bhutan Standards Bureau is still in the process of establishment. According to its senior staff, the Bureau's four core areas of business will be in standard-setting, metrology, certification and accreditation. In respect of certification, it is apparently not the BSB's intention to operate a broad system of product certification but to concentrate, in particular, on the certification of building and construction materials. As for accreditation, the BSB intends to act as the national focal point that will facilitate the accreditation of Bhutanese organizations by India's National Accreditation Board for Testing and Calibration Laboratories (NABL). The BSB does not intend to inspect any items other than construction materials. To assist its activities the BSB is entering into MoUs with counterpart organizations in Singapore, Thailand and Indonesia, as well as the NABL.

12 *Royal Government of Bhutan 2010, Economic Development Policy of the Kingdom of Bhutan (EDP)*

13 *Aditi, based in Bangalore, certifies Bio-Bhutan's products.*

7.3.3. Accreditation of BAFRA and BSB laboratories

There are several reasons why Bhutanese analytical laboratories should be accredited. One is that certificates issued by the competent bodies in Bhutan to meet import requirements may need to be based on tests carried out in a laboratory that is accredited to the relevant international standards. Another reason is that achieving and maintaining international-standard accreditation is a way of imposing a necessary discipline on laboratories, ensuring that they have the adequate management capacity, standard operating procedures and the equipment needed. Finally, it is important for international accreditation to be obtained in order to provide for the potential future demands for internationally credible analytical testing, especially in support of certification of organic exports.

In the event that neither of the BAFRA and BSB laboratories achieves accreditation, some additional support measures may be required. Obtaining accreditation should be considered as a step in an evolutionary process and not an end in itself. Both laboratories will need to be actively engaged in testing activities in order to maintain their competence; retention of trained staff is also likely to be a major challenge in an economy where high-level technical skills are in short supply. The maintenance and calibration of testing equipment must also be provided for. Consequently the parent agencies need to turn their attention to the programme of developmental activities that should be instituted at the conclusion of the UNIDO project.

7.4. Priority areas for capacity building

The capacity issues identified require a mix of solutions that involve, on the one hand, action by the RGoB and its agencies and on the other, technical assistance from the donor community for targeted projects. For example, BAFRA's fundamental problem, highlighted in the paragraphs above, is that it does not have enough staff to implement its broad mandate, especially at the senior technical/policy level. For risks analysis, staff extended training is needed. The RGoB will therefore have to make human resources available for training; simultaneously, it will also need to build cooperative relationships with counterpart agencies in other countries, and to seek technical assistance and funding both for advice and training for BAFRA risk-analysis staff.

Similarly, for the development of capability in the field of organics, BAFRA will need staff and training, as well as programme design and management. A technical cooperation agreement with the relevant agencies in India and/or Thailand will meet part of this need, but project-based technical assistance could greatly accelerate progress towards the Government's objectives. Very high priority areas that require support have been identified. They range from the support of the international community to providing (i) gap-filling expertise for the implementation of a bio-security programme, (ii) accreditation of BAFRA as organic certifier and a support to extension work, and (iii) BSB institutional development and training.

8. Business environment and entrepreneurship

In Doing Business 2012, Bhutan ranks 142nd out 183 countries for the overall ease of doing business. This is a marked improvement over the ranking of 176 in 2010. This 2012 ranking

is still however low compared to other LDCs in south Asia: Maldives 79; Nepal 107 and Bangladesh 122. Bhutan has the capacity to do better, as illustrated by the improvement for "access to credit" in 2011, whereby the country jumped from the 170th to the 126th rank, mostly due to the establishment of a public credit registry which ensures transparency and better information on indebtedness of borrowers.

8.1. Bottlenecks as perceived by the private sector and foreign investors

8.1.1. Access to credit

Despite the improvements in the ranking for "access to credit" in Doing Business, a series of interviews with entrepreneurs conducted by the DTIS mission in August 2011 reveal that financing is still considered as a major constraint. The mission learned that collaterals required for a loan are extremely high, and that banks only extend credit on collateral of land and buildings, without recognizing receivables, inventory, export management capability, or experience. Furthermore, interest rates charged by banks are high, averaging a rate of 12 percent for industrial and commercial loans.

8.1.2. Reimbursement of excise duty

When manufactured goods (finished or semi-finished) produced in India are purchased by a Bhutanese firm, the firm has to pay excise duty. There is an agreement between India and Bhutan that the amount of the excise will be transferred back to Bhutan Treasury, with the understanding that it should be re-paid to the firms that have paid the excise. However, it seems that firms do not recoup the expenditure made to pay the excise. The result is a disincentive for the manufacturing sector operating on this side of the border.

8.1.3. Quality and availability of labour and productivity

During the interviews for the DTIS, the entrepreneurs drew attention to the shortage of skilled and unskilled labour in Bhutan. Foreign workers - notably Indians - fill the gap in industries located in the manufacturing industry and in the construction sector. Entrepreneurs also complained about a skills mismatch created by an education system which privileges general education, while engineering studies and vocational training are limited. These findings are in line with the enterprises survey conducted in 2009 by the World Bank, which found that foreign workers make up one fifth or more of all workers in half of the enterprises participating in the survey. Average labour cost in Bhutan is much higher than in neighbouring countries: 2.5 higher than in Bangladesh and 45 percent higher than in India. According those interviewed, the productivity of Bhutanese workers does not compensate for their higher labour cost[14]. There is a risk of losing the competitiveness that results from the availability of cheap electricity. The DTIS mission also noted a lack of the latest available technologies as well the quasi absence of markers of quality such as accreditation by the International Organization for Standardization (ISO) or Good Manufacturing Practices (GMP); these international quality systems are often a sign of higher productivity and competitiveness on global markets.

14 *There are contradictory statements about productivity of local workers. The ICA states that local workers are more productive than foreigners while entrepreneurs met by the DTIS mission expressed a different view. See discussion of this point in the main report.*

8.1.4. Educational opportunities

The intake capacity of the country's education system needs to be increased, especially for the university (engineering and business) and for the vocational training institutes. In 2010, the eleven institutes under the Royal University of Bhutan together recruited 1,580 students. Only the Jigme Namgyel Polytechnic offers courses in Mechanical Engineering (31 students), Electrical Engineering (52 students) and Civil Engineering (98 students). The development of private training institutes, especially in IT, is however promising.

The quality of studies should also be upgraded to help Bhutanese entrepreneurs keep their competitive edge, and the education system should be more responsive to the private sector needs. The priority is to improve and adapt the training offered by business schools and colleges of science and technology. One way of doing this is to build connections between Bhutanese colleges and the private sector.

The Ministry of Labour and Human Resources offers short-term vocational training sessions for future entrepreneurs. Over the last two years (2009-2010), 440 people have been trained, of which one fourth have started their own business. There is an increasing demand for this programme. However, it needs to be enhanced, especially by including an export component. An objective of 6,000 trainees per year has been adopted.

8.1.5. Business law and regulations

To run any business, an entrepreneur needs a license. However Industrial licenses are difficult to obtain because of stringent environmental requirements.

8.1.6. Foreign investors' perceptions

From the point of view of foreign investors, rules and regulations for hiring foreign labour are heavy. Because Bhutan's labour shortage has been recognized by the new FDI policy, expatriate workers are authorized, but only for the first five years of operation. After five years, the ratio of expatriate to Bhutanese employment is reduced to 1:5. This requirement seems to be unduly stringent in view of the endemic labour shortage.

Profit repatriation is also perceived as a constraint. Profit can be repatriated only in the currency of export earnings. Therefore, a foreign company that earns rupees can repatriate only rupees. The problem is that Indian rupees are currently not convertible.

8.2. Government policies

In order to encourage enterprises to help drive economic growth and employment, the EDP contains a number of concessions and mechanisms. These range from training subsidies to free land and structures and a variety of tax holidays. Improved regulations in 2006 were intended to simplify the procedure for SMEs and to support non-polluting, non-harmful industries as part of the launch of a green channel/red channel system, through which industries that are in non-controversial fields are able to start operations on a green light track, while potentially harmful and polluting industries are subject to more rigorous controls.

The RGoB has also tried to address the financial constraints by increasing competition between banks: two new banks have been authorized to open. The initiative of establishing a Credit Bureau will provide a robust source

of information about the credit history of potential borrowers and will increase trust between banks and their clients. Support targeted to micro-financing is also available. The Bhutan Development Bank Ltd. provides collateral-free loans to micro-entrepreneurs. The cap for these is Nu 1,000,000, or about $22,000. These loans are available to villagers and to city-based entrepreneurs, including many graduates of the Ministry of Labour and Human Resources (MoLRH)'s vocational training schemes.

Most of the active programmes in support of Micro, Small and Medium Enterprises (MSMEs) are geared towards supporting cottage and small industries. Micro-enterprises need only to register: they do not require licenses and are not charged for fees or renewal fees. There is also a SME-friendly system for intellectual property (IP) in Bhutan, whereby any enterprise can apply locally for international trademarks. Further improvements are possible by providing protection for minor inventions of SMEs under a utility model law; this protection is not currently provided for in the Industrial Property Act of Bhutan. While encouraging micro-entrepreneurship is valuable and vital, this encouragement should not be at the expense of supporting SMEs, as there will be some missed opportunities if larger SMEs find it comparatively difficult to start and grow. The advantage of larger SMEs is that they are better able to capture economies of scale and are likely to be involved in fields that micro- and cottage enterprises might miss.

8.3. Development perspectives for the private sector

8.3.1. Capture the mark-up on exports

Numerous sectors in Bhutan can be characterized by "passive exports", i.e. farmers and local firms are not searching for clients, but depend on foreign middlemen to identify opportunities. For instance, exports of potatoes, apples, mandarins and cardamoms are controlled by Indian traders: they come to Bhutan to participate in auctions, and once back in India they sell the produce to another operator. In this process, the mark-up is confiscated by the first intermediary. One way to rectify this situation would be to enable Bhutanese traders to take jobs in the export process. An example of change is the Bhutanese company that exports red rice in bulk to US: this company is now developing its own capacity for packaging, and its products will be sold directly to the US market.

8.3.2. Cluster industries and promote linkages between enterprises

Owing to Bhutan's space problem and the small size of Bhutanese companies, industrial policy should revolve around clustering industries and establishing linkages between enterprises. Areas in Bhutan where it is possible to set up factories are limited because of the country's rugged and mountainous geography. Bhutan's economic development has so far essentially taken place in Thimphu-Paro and Phuentsholing. The government has created two industrial estates in Phuentsholing and in its suburb, Pasakha. The latter is the more important: 21 companies currently operate there, employing about 2,110 people. These two industrial estates have almost reached capacity, and very limited space exists to establish new companies for exports. Following the success of the industrial estates in Phuentsholing, the objective of the RGoB is to create a Southern Industrial Belt (economic zone).

One particular problem concerns the development of mining industries. At present, mineral exports rank third in term of export revenues. The policy of the government is that the export of raw materials is banned and that minerals should be processed locally in order to increase their value. However operators complain that often land is not available for installing a processing facility. Local officials need to give priority attention to this problem.

8.3.3. Entrepreneurs, high-value agriculture and economies of scale

Commercial and organic farming are encouraged by the government. There are tax incentives to achieve these two objectives: a five-year tax break for farmers or companies involved in commercial farming and an additional five-year tax break to grow organic produce. As explained in the section on SPS and quality infrastructure, the national strategy for organic produce is not yet ready. Despite these challenges, there are already some examples of market opportunities being exploited by entrepreneurs. Currently, there are two significant enterprises that are developing coffee and hazelnut plantations:

- The development of coffee plantations is driven and financed by a local Bhutanese entrepreneur, the Samden Group, that sees an opportunity in organic agriculture. Three hundred acres have been approved, coffee tree nurseries established and farmer groups have started receiving training. The programme is established within the EDP framework and constitutes environmental rehabilitation as the coffee trees are largely being planted on degraded land. The objective is to produce 800 tons a year, with the aim of expanding to a second location.
- Mountain Hazelnut Venture Limited, a Hong Kong Company, is financing hazelnut trees and planting and guaranteeing purchase of produce according to an agreed price structure. This partnership represents Bhutan's first and only 100 percent foreign direct investment, financed by IFC.

8.3.4. Moving up the value chain to innovative finished products

As Bhutanese agricultural and handicraft products are generally more expensive than similar products from India, value addition is essential to make a viable product from more expensive produce. More value can be captured by creating finished branded products. A few entities in Bhutan are beginning to capture this potential. However, for small business there is a significant need for affordable professional services in design, packaging and product development, as well as for marketing expertise to create new markets for a product. The problem is that adequate support services are missing in most sectors.

8.3.5. National and company-level branding and marketing

The policy discourse recognizes the importance of national branding and the need to provide facilities for marketing national produce. However there is little mention of branding and marketing strategy at the level of the individual firm. Yet these are traditionally the source of innovations in marketing and branding. In India, private enterprises such as Fabindia and Anoukhi have led the way in promoting Indian craft and fabric for fashion and home-ware.

The training needs for positioning value-added products, whether at country or individual firm level, are however considerable. For example, Fabindia's proposal for the training required in order to launch Bhutan corners in their Indian retail shops sets out, in detail, an extremely wide range of needs: these include for example the setting up of a Design Development Centre (DDC), introducing laser-cutting technology for woodcraft, and technical expertise in processing and developing packaged products.

8.3.6. GNH-friendly livelihoods - social enterprise and green jobs

While the GNH approach does not preclude private enterprise, it also does not provide unquestioning support for it. The Government's GNH philosophy as such is more compatible with increasingly popular concepts such as social enterprise and green jobs. Social enterprises are run according to a double or triple bottom line that includes social and/or environmental achievement as well as financial gain. Today, social enterprise is gaining increasing recognition and acceptance as a business model in both developing and developed economies. The potential for developing indigenous Bhutanese social enterprises is strong.

8.3.7. Opportunities from traditional intellectual property

Other opportunities may arise from building on local traditional knowledge and traditional cultural expressions, such as design, handicraft and paintings. Bhutan possesses vast resources of traditional knowledge in areas ranging from medicinal plants to the design features of Kira patterns and Bhutanese Thanka painting. Initiatives such as the creation of catalogues of this knowledge at the IP Division are an important step to protect and support local people's right to benefit from this knowledge. There is also scope for more far-reaching aims that would connect traditional knowledge with economic development through entrepreneurial or PPP-led initiatives. One example is that of bio-prospecting for drug discovery, which could draw on the rich resource of traditional knowledge relating to plants for healing purposes.

9. Towards a more inclusive tourism

9.1. Development of the tourism market

During the last decade, international visitors have increased steadily, from 7,559 arrivals in 2000 to 23,480 arrivals in 2009. The jump to 40,873 visitors observed in 2010 is explained by the decision to include the Indian "high spend" category for the first time; this recorded 13,677 visitors. Contrary to the wider international visitors, Indians do not have the obligation to buy an all-inclusive tariff.

The US, Japan, Germany, UK and China make up the top five source markets for the high yield / low impact market. However in terms of bed nights, the order is different: while the US remains on top, China is only tenth in the list of more lucrative markets[15]. This clearly illustrates that total bed nights rather than the number of visitor arrivals should be the definitive indicator to measure industry performance and the positioning of source markets.

The Tourism Council of Bhutan (TCB) estimates that just under 90 percent of tariff-paying

15 *In order of importance: US, Germany, UK, Japan, France, Australia, the Netherlands, Italy, Switzerland and China.*

arrivals are cultural tourists, attracted by Tshechus (festivals) and visits to monasteries and Dzongkhags. The districts of Paro and Thimphu attract over 50 percent of all bed nights and about 88 percent of these are spent in the five Dzongkhags of Paro, Thimphu, Wangde Phodrang, Punakha and Bumthang. The high dependency upon cultural tourism largely account for the seasonal peaks in arrivals, which are compacted into the months of March, April, May and September, October, November.

This imbalance creates difficulties for product and destination development – especially in terms of engaging and benefiting rural communities. Firstly, as the great majority of tour groups are focused upon the Tsechus, few visitors frequent rural areas. Secondly, many tour operators lack the market knowledge or motivation to innovate and develop new products, which in turn stifles competition among different actors and creates little if any incentive for hotels and restaurants to innovate and develop competitive offers. In particular, tour operators have shown little interest in working with rural communities, which are often perceived as difficult to organize and manage and a source of less profit.

9.2. Bhutan's unique tariff policy

The restrictive tariff and royalty policy adopted so far by the RGoB is an expression of the Government's desire to preserve both the environment and Bhutan's cultural heritage. All visitors from the wider international market are required to book their stay through a tour agent and pay an up-front all-inclusive fee. These requirements constitute the key policy instrument to promote high yield/ low impact tourism, but the restrictions also mean that the tour operators control the itineraries, the flow of tourists and the products. Until recently, the $200 non-negotiable minimum daily tariff applied to international visitors to Bhutan. In 2010 Bhutan earned just under $36 million through the tourism tariff as compared with $9.2 million in 2000[16].

Commitment to the tariff has recently been renewed: from 2012 it will increase to $250 per day for the six high-season months and will remain at $200 per day for the six low-season months. However, debate as to whether Bhutan should continue with the tariff has been rife for at least 10 years and there is strong advocacy for its withdrawal. Most of the tour operators interviewed advocate the retention of the tariff. However, most government officers interviewed recommended dropping the tariff component, while retaining the royalty component in order to maintain Bhutan's globally unique policy approach.

9.3. Government tourism policy

9.3.1. Tourism policy in the 10th Five Year Plan

In the 10th FYP, the expansion of tourism is seen as a major pillar of the national growth and poverty reduction strategy. Two ambitious goals have been set for 2013: an increase in the number of tourists to 100,000 visitors per year and a parallel growth in the tourism sector's contribution to GDP to reach $215 million. However, less attention has been given to the second goal. The Plan also places significant emphasis upon the positive effect that tourism is expected to have on national growth and poverty-reduction, through its stated aim of

16 *Indian tourists do not have the obligation to buy an all-inclusive tour, nor to use a travel agency to book their holidays.*

developing the industry so as to maximize tourism-related income and employment opportunities for rural communities in provinces.

9.3.2. The development of tourism and its effect on economic growth

There have been many achievements of many different kinds in line with the objectives of the 10th FYP. Some of these are major, such as the opening of the eastern and southern regions to tourism, including the construction of three new domestic airports. In 2012, Bhutan's national carrier, Druk Air, will receive new aircraft and new regional destinations will be opened. Domestic flights will continue to be operated by Druk Air but a new airline, Tashi Air, will commence operations.

Infrastructure and IT services have been upgraded, with increased electrification and improved connectivity throughout the country, resulting in on-line visa and Druk Air ticketing services and the introduction of credit cards and ATMs in tourist hubs. Hotel accommodation has also been improved, with a classification of hotels and incentives for hoteliers to upgrade to a minimum 3-stars standard. Investments for four five-star hotels have been approved. The Royal Institute for Tourism and Hospitality has been opened. New tourism products are being developed, with the Merak Sakteng Trek in the east and the opening of new cultural festivals during non-peak months for tourists. A Tourism Bill should be approved by the RGoB by the end of 2011.

9.3.3. Challenges and development issues

The above actions confirm the many achievements in developing the tourism sector as a major pillar of the national development strategy. At the same time, however, there are still several remaining factors that challenge and constrain development potential and the ability of the government and private sector to promote more equitable and inclusive forms of tourism:

- The current tariff policy and the predominant role of tour operators are not always conducive to achieving this goal.
- A low volume of tourists to rural areas, reducing opportunities for reliable income and offering few business incentives for local entrepreneurs.
- The high investment in capital costs and time needed for infrastructure improvements, and the absence of any detailed tourism investment for destinations linked to the three new airports.
- The need for most large and medium-sized local tour operators to concentrate primarily on gaining their livelihood, and the lack of incentives and know-how that would enable them to develop alternative products and/or more equitable business models.

These factors show a clear need, firstly for a more enabling policy environment with more clearly targeted regulatory frameworks, and secondly for a solid business commitment to Corporate Social Responsibility principles and practices in line with Bhutan's GNH policies.

9.4. Enhancing yield and sustainability

9.4.1. Sharpening tools for policy making: tourism's contribution to GDP at national and local level

The Secretariat of the Tourism Council of Bhutan (TCB) has attempted to calculate the

overall contribution of tourism to GDP, which in 2010 was conservatively estimated to be around $90 million. This figure is fairly crude and does not take into account (i) undercutting on the tariff and commissions paid to overseas agents; (ii) the true earnings of the 4 and 5 star hotels, which seem grossly underestimated, (iii) linkages between tourism and the wider economy, (iv) economic benefits flowing to the Bhutanese people in terms of employment generation and regional development and (v) leakages from the tourism economy.

A better understanding of tourism's contribution to the economy - national and regional - is critical to developing policy and regulatory measures that can maximize the overall contribution of tourism to development. While a Tourism Satellite Account (TSA) seems too complex and challenging to operate at this stage of development, it seems that work could focus on implementation of methodological proposals to improve the first attempt of the TCB. In addition, efforts could be made to fully collect and publish the basic tourism statistics reported in the UNWTO's Compendium of Tourism Statistics. In parallel, it is recommended to undertake impact studies and analyses of value chains at the district level in order to enable local authorities to seek a better contribution of tourism to their districts.

9.4.2. Fostering cross-sector coordination

It is important to ensure that a knowledge and understanding of the tourism industry extends to a wide range of government agencies. Interviews with a variety of stakeholders reveal a series of issues and concerns relating to inadequate coordination among sectors. Training programmes should therefore be offered to officials within different government line agencies and to senior local government officials at the Dzongkhag (district) level.

9.4.3. Product development and community-based tourism

Any form of destination development work that seeks to create and embed visitor experiences among host communities must of its very nature be consultative, inclusive and generate income and entrepreneurial opportunities for local households. Meetings with the TCB, local governments, economic operators and community leaders have enabled a list to be drawn up of their main needs and demands. These include: (i) aid in improving the regulatory, incentive and enabling environment, (ii) facilitating private sector and entrepreneurial activity in the field of product development, and (iii) adequate funding for implementation. Assistance in these areas will build government capacity and improve the enabling environment. Specific interventions should be chosen that link directly with support to entrepreneurs and MSMEs to facilitate product and enterprise development in the market place.

9.4.4. Strengthening supply chains

It is important to strengthen the accommodation and restaurant supply chains linking tourism to Bhutan's labour market. One main reason is that efficient supply chains restrict the passage of tourism-related earnings out of the country and provide income and employment for many households, including poorer and marginalized families. However, supply and demand issues associated with these chains – especially the food sector – are complex. Current linkages are weak and there appear to be few quick and easy solutions. Some observers are pessimistic about the

possibility of developing linkages because it might be argued that low visitor volumes and the small percentage of land suited to farming make it difficult to justify costly intervention schemes. Against this view, it is interesting to note that one of Bhutan's five-star hotels imports 90 percent of its vegetables from India while another ensures that 100 percent of its vegetables are locally sourced. These examples seem to suggest that supply chains can indeed be strengthened.

10. Information and Communication Technology (ICT) and development

The diffusion of ICTs is transforming the way business is done. It is making business more efficient by streamlining and automating business processes, while also increasing worker efficiency. ICT is the basis for the Information Technology-enabled Services (ITeS) industry. The ITeS market ranges from lower-value services such as call centre/contact centre all the way up to highly valuable services such as system integration services, engineering consulting, architectural, animation design, and development outsourcing, etc. The ITeS industry represents a substantial business opportunity for Bhutan.

10.1. Bhutan's position for developing ICT

The RGoB has made a strong commitment to use ICTs and to expand the ICT sector for development purposes. This commitment is captured in the EDP. Of interest is the objective of making Bhutan "an attractive destination for FDI in R&D, data processing and high-end Business Process Outsourcing (BPOs) through a highly trained talent pool". During the 10th FYP, the RGoB invested heavily in improving access to ICT use as well as considering ways to enhance access to public services through the implementation of the G2C project. The Ministry of Education, as well as the Royal University of Bhutan and the Royal Institute of Management, have ambitious programmes that aim to provide graduates with the requisite IT skills that will permit them to perform in a modern office environment.

The deployment of fibre-optic cabling throughout the country is nearly complete. Work has now started to establish community centres (CC) in each Gewog. These will bring the benefits of ICT technology to rural population. In parallel, Bhutan is actively negotiating with India telecommunication service providers to add more separate fibre-optic cable connections throughout India as a way of ensuring reliability, providing redundant connections and achieving the quality of service (QoS) that is essential to secure FDI from ICT firms.

While the diffusion of wireless ICT services is now reaching most parts of the country, the availability of wireless broadband services such as 3G remains limited to Thimphu, and uptake is very slow. PC and Internet penetration is still low and Bhutan scores at the lower end on major ICT indices such as the 2011 edition of the ITU Internet Development Index (119 out of 152 countries).

10.2. ICT policy and legal environment

In general, the Bhutan Information, Communication and Media Act, 2006, is comprehensive and covers most aspects of concern. However, it should be updated to reflect current practice. Furthermore, it is likely that at the same time, some basic provisions of the consumer protection law may need to be

updated. The existing provisions for online privacy stop well short of what is expected today by the government and the private sector. Concerning intellectual property rights, the ICT law is far from offering a complete framework for intellectual property protection.

On issues related to cyber-security, the law under section 171, "Provisions regarding Cyber Security issues", was a good law and implementation has followed. The law was adopted in 2006 and should now be updated. The creation of a Certificate Authority (CA) for Bhutan and for the establishment of a Computer Emergency Response Team (CERT) / Computer Incidence Response Team (CIRT) should be envisaged to further secure the Bhutan Internet.

10.3. Institutional framework for ICT and the development sectors

During recent years, the RGoB's ICT use has rapidly increased. However, to fully take advantage of ITC's power and to improve process efficiency and service delivery, efforts are needed to consolidate and streamline ICT use and encourage the adoption of shared services. These measures will strengthen national competitiveness and the trade position of Bhutan, as well as improving the quality of public services delivered by establishing an effective, systematic and productive e-government system.

The government also needs to develop and implement government-wide enterprise technology plans, and maintain a governance model to oversee the completion of the transformation to e-government. It should also develop an e-procurement system that will strengthen the capacity of the private sector in general, and enable small and medium-sized Bhutanese enterprises in particular, to use ICT trading platforms in order to become more efficient in business and more trade- and export-ready.

Shared services and a standards-based approach will ensure that all government ministries and departments use common and interoperable standards, operating systems, procedures and most importantly, applications and data structures. To do this, the government has to develop a solution similar to that put into place in promoting the G2C project, i.e. a central executive organization.

10.4. Recommendations

- Secure the ITeS opportunity for Bhutan

  There are two separate but related projects under this heading. The first project aims to market and raise the awareness of Bhutan as an ITeS destination. Bhutan has real advantages that need to be documented and opportunities to be communicated to potential investors. This project should be part of a coherent long-term strategy to promote ITeS and develop partnerships with ITeS and other multinationals that depend on ITeS.

  The second project aims at enhancing the attractiveness of Bhutan as an FDI destination. Along with its global marketing effort, Bhutan has to enhance its position as an ITeS destination by continuing and extending the policies that attract FDI. This is a high-level priority to be implemented by the MoEA, Druk Holding and Investments (DHI), the Ministry

of Information and Communications (MoIC), the Ministry of Finance, the Revenue and Customs Department and the MoLHR. A high-level governance mechanism must be put into place, as was the case for the G2C project, and/or these responsibilities must be delegated to an executing agency.

- Continue to develop broadband infrastructure

  The objective of this endeavour is to continue to grow the national fibre-optic network backbone and to meet other existing and near-term broadband infrastructure needs to connect communities throughout Bhutan and to connect Bhutan globally. A key challenge facing Bhutan's efforts to promote the IT Park as an ITeS destination is the need to ensure access to high-speed and secure fibre-optic connections to the Internet backbone. As a landlocked country, Bhutan is at a disadvantage because it must cross a third country to get access to marine fibre-optic cables such as the FLAG sub-marine cable linking Asia to Europe and beyond, i.e. linking Asia to the Internet backbone.

- Establish CCs in all Gewogs

  The objective of this project is to connect all communities in Bhutan to the Internet by establishing Community Centres in each Gewog. This will help promote greater community participation in the social, economic and cultural life of Bhutan. In order for the CCs to have any chance of success, they must meet the needs and demands of community dwellers. Invariably, people want information and services that deal with government, job and other employment and business opportunities, as well as access to information about health issues and about education. Each community needs to be made aware of the uses to which the CCs can be put.

  This is a high-level priority activity that needs immediate and ongoing attention. The MoIC is the main responsible ministry, along with the Ministry of Home and Cultural Affairs and the Ministry of Works and Human Settlement. The Bhutan Power Corporation and the Bhutan Telecom and Tashi Cell also need to be part of the project.

- Create an enabling legal and policy environment

  The objective of this activity is to continue to enhance the legal and policy environment to further encourage the adoption and use of e-commerce and ICT-enabled business.

- Put into place an e-procurement platform and streamline procurement

  The objective of this recommendation is to encourage SMEs to use computers and the Internet for business. Given that the Government of Bhutan is the main market for goods and services in Bhutan, computerizing procurement will drive small business operators to the e-procurement platform that is to be put into place. The e-procurement platform will encourage private sector operators to learn about e-commerce in order to secure government contracts.

Experience in other countries that have tried to encourage the private sector to use PCs and the internet and to adopt e-commerce suggests that this is one of the best ways to accomplish this aim.

E-procurement systems have other benefits as well. They enhance the efficiency, transparency and reach of government procurement, and improve access to government tender opportunities for SMEs and for anyone with an Internet connection. E-procurement promotes e-commerce in government and beyond, and encourages SMEs to modernize. It also promotes the growth of the ICT ecosystem in a fashion that is consistent with the Bhutan's ITeS and trade development ambitions.

The priority for implementing an e-procurement platform on a pilot project basis is high. The sooner such a system is put into place, the sooner Bhutan SMEs and individual contractors will develop the skills and knowledge to use e-commerce for enhancing trade and development in Bhutan.

- Develop the Bhutan Innovation and Technology Centre (BITC)

  The objective of this intervention is to nurture Bhutanese entrepreneurs in the ICT sector by developing the Bhutan Innovation and Technology Centre (BITC) and the Thimphu TechPark Private Limited (TTPL). The key players in developing this strategy will be the Thimphu TechPark Private Limited, the Bhutan Innovation and Technology Centre, the MoIC and the MoEA.

DTIS ACTION MATRIX

1. MACRO-ECONOMICS POLICIES

Objectives	Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
1.1. Seek out an optimal exchange rate policy, more supportive of trade and industrial development policies	Set up a group of experts, including at least one international senior consultant, to discuss different scenarios of exchange rate policy, weighing the benefits versus costs, taking into account the macroeconomic fundamentals of Bhutan.	Medium	RMA, MoEA, DoI, DoT, MoF, GNHC,	Consultancy		$100-200,000
1.2. Seek a better match between needs of economy and labour market	Create a group of experts to review measures to increase intake of educational system with a bias towards engineering and business, reform vocational training, weigh pros and cons of selective immigration, analyze rural migrations towards cities and needs for training, propose measures for improving functioning of labour market (information, up-grade skills …)	High	GNHC, MoLHR, MoE, MoEA, MoIC, BCCI, civil society	Consultancy		$250,000
1.3. Improve quality and homogeneity of statistical data on trade and FDI	• Set up system to harmonize data on FDI flows reported by RMA and DoI • Participation of DoT with RMA annual survey of informal trade (joint publication) • Capacity building with the aim of ensuring that officials are systematically trained to generate and use data. • Infrastructure development, including installation, training and implementation.	High/two years	RMA , NSB, DRC,DoT and DoI (MoEA)	Institutional strengthening & capacity development	IMF and UNCTAD have been active in the sector.	$1-10 million
1.4. Raise awareness about issues related to Dutch disease and rent seeking	Organize a task force with main actors. After review of issues, if appropriate, prepare a plan of action.	Medium	GNHC, MoEA, MoF, civil society, BCCI,	Policy	This is a potential problem which could develop once revenues generated by the exploitation of hydropower resources are more important, let us say 5 to 10 years from now. Good development policies will lower the risks of Dutch disease.	

2. PRIVATE SECTOR DEVELOPMENT

Objectives	Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
2.1. Entrepreneurship development						
2.1.1. Build up a class of entrepreneurs (SMEs)	• Enhance Entrepreneurship Promotion Programme at the MoLHR and include export and FDI. Grant trainees cheaper access to credit. • Teach social entrepreneurship at the university and in other educational institutions to raise the profile and sense of social merit for this field. • Awards for excellence to give formal recognition to entrepreneurs. • Promote a dialogue between colleges and technical institutes, and private sector. • Generalize internship programmes in colleges and vocational training institutes. • Include in curriculum courses and lectures by practitioners • Policy advocacy and advisory services	High/duration 10 to 20 years High High High/3 to 5 years	MoLHE/MoE BCCI, MoIC (IT park), civil society, DCSI (MoEA)	Capacity development. Human resources. Training and policy Task force for awards	Build on existing programme on entrepreneurship in MoLHR. There is a proposal by Dalhousie University, Sherubtse College, for a partnership for sustainable business courses. Bhutan's seal of excellence programme can be used as a model.	First phase (3 years): $900,000 No cost or minor expenditures (no need for donor's involvement).
2.2. Create an enabling institutional framework for SMEs						
2.2.1. Strengthen the institutional framework for SMEs	• Broader and deeper SME financing options. • Provide a large range of financing options targeted at SMEs of all sizes, including collateral-free loans and possible venture capital funding. • Mobile technology to lower cost of micro loans. • Reduce the cost of providing micro loans or business. • Information by using Mobile phones of borrowers to access and administer loans.	High Initiate mid 2012 with aim to make operational by mid-2013 Medium Initiate mid 2012	MoF, RMA, MoEA (DCSI), BCCI, MoLHR, MoIC, financial institutions.	Policy task force Consultancy	Loden Foundation programming is a very good basis to inform this development for larger SMEs, along with MoLHR vocational training and Bhutan Development Bank, Ltd. for micro enterprises. Mobile phones are being used by Bhutan Development Bank Ltd. to show statements to village clients; building on this experience, develop apps to transfer money, pay bills…	

2.2.2.	Create legal and institutional framework for business infrastructure	Conduct study to determine the need for dedicated agency to foster business infrastructure such as Industrial Estate Authority. Develop infrastructure development policy. Facilitate private investment (developers) in infrastructure development through facilitation and incentives. PPP Policy and implementation.	High	MoEA, DHI, BCCI			
2.2.3.	Set up consultative services (Branding, marketing, packaging, technology transfer, GIs and other IPR...) for SMEs	Set up a consultancy firm to provide services to SMEs The Unit would provide (1) training for small groups of entrepreneurs, (2) "commercial" consultancies as requested by individual firms. During the first two years, the Unit could be located within the BCCI. After that initial period and depending of the results achieved, the Unit should be transformed into a business entity, able to become a sustainable business. The Unit should be composed of five full-time national staff, seconded as needed by international and national consultants. The ITC would provide international consultants and logistic support. Business incubation services. Provide incubation business support services to SMEs of all sizes.	High/initiate early 2012; Medium/2012	GNHC, MoEA, BCCI, MoLRH, DHI	Team of international and local consultants	Concerning business incubators, a new agency, Bhutan Innovation and Technology Centre (BITC) has been established near the IT Park. The BITC provides incubators to enterprises of all sectors, e.g. agriculture, handicraft, manufacturing, ITeS, etc. The business women's association also provides incubator services to its members. The resources available and the response to the needs for incubators need to be assessed before committing additional resource to that activity. This is why this action is rated medium.	
2.2.4.	Provide incentives to manufacturing firms to develop business in Bhutan	Reimburse excise duty paid on importing semi-finished goods manufactured in India and imported by Bhutanese firm Continue discussions with the Ministry of Finance on modalities for obtaining reimbursement of excise duty to Bhutanese firms that have paid that excise when buying finished or semi-finished goods manufactured in India.	High/2012	MoF, MoEA, BCCI	Policy dialogue		

2.3.	Promote development of value chains						
2.3.1.	Set up a task force for promotion of SMEs linkages	Create a mechanism for promoting linkages in the SME sector Make regular surveys of existing private sector businesses and find out where linkages are missing (i.e. local packaging production and design, etc.), identifying these as potential areas to promote new entrepreneurship.	High/first survey 2012	MoEA, DCSI, Loden Foundation, MoLHR, MoF and BDev. Bank	consultancy	Loden Foundation is already engaged in cultivating SMEs of larger size. Building on their body of knowledge, a consultant can design this survey. MoF is already looking into these issues. IFC supports such efforts and seek partners for developing local venture capital.	
2.3.2.	Support enterprise-led solutions	Undertake value chain analysis, accounting for possible synergies and linkages. Encourage appropriate enterprise-led innovation in rural areas, from individuals marketing produce of disparate farmers to new products being created such as new produce, Bhutanese handicraft toys, etc…	Medium/initiate mid-2012	MOFA,BCCI	Consultancy	OGTP is designed to examine markets, linkages and synergies in identifying products for scaling up in each respective Gewog. This effort can be expanded to include non-agricultural products and services.	

3. TRADE AND INVESTMENT POLICY AND INSTITUTIONS

Objectives		Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
3.1.	Increase FDI attractiveness	• Develop implementing FDI regulations, institutional building and investment promotion. Draft FDI legislation • Carry out an Investment Policy Review (IPR) and use findings to review investment climate and investment strategy • Design an investment promotion strategy, including a more refined analysis of sectors for investment and promotion • Capacity building in invest. related issues, e.g. FDI statistics, investment promotion techniques, policy advocacy, after care, dispute settlement and resolution of conflicts, IIAs and IP related issues • Study the need to ratify international investment and dispute settlement treaties	High/two years	MoEA, DHI	Policy/ legislative Act	IFC and UNCTAD have considerable experience and expertise on FDI issues; many reports on FDI policies in other countries can be consulted. .	

3.2.	Foster Export Promotion	• Product differentiation and product identification. Branding and geographical indications, trademarks, collective marks and other IP Rights instruments should be used as a source of niche marketing to identify products of Bhutanese origin. • Identification of Bhutanese products to be covered by GIs and Protected Denominations of Origin (PDOs) and assistance to handicrafts producers for submitting applications of collective trade mark registration. • Assist the products identified above in meeting SPS and other market requirements to penetrate exports markets. • Signature line. A specialized line of pro-poor products can be developed to trade. Products from the more remote areas of OGTP can be bundled together and marketed by incorporating this specific story. • Improved coordination for marketing of pro-poor goods and services. Use the coordination facility of the GNHC to ensure that marketing of agricultural, tourism, crafts and other potentially complementary products are given cohesive support. At trade fairs, showcase the full range of products to reinforce synergies in Brand Bhutan products. • Proactive marketing support. Use embassy resources in other countries to identify suitable outlets for branded products and provide a service of screening products and enterprises and then connecting them to distribution buyers.	High/initiate early 2012 Medium/initiate mid 2012 High/initiate early 2012 Medium/ mid 2012	MoA, MoFA, MoEA, TCB, GHNC, BCCI	Policy/TA Policy/TA Consultancy (Policy/TA Institutional dev. / policy Policy/institutional dev.	TCB, MoA and MoEA all have separate programmes to market respective goods and services. These can be coordinated more strongly by GNHC. DoT is already providing export promotion facilities as is MoAF. These could be strengthened using existing resources.	

3.3.	Strengthen the EIF structure	• Designate two senior trade officials and one support staff to work full time on EIF matters: • assist the EIF Focal Point and service the National Steering Committee • Projects proposal-writing and projects management. • Mainstreaming trade into national development policy • Advocacy work and organization of capacity building activities • Organize/ facilitate monitoring and evaluation of the EIF programme • Finalize arrangement for a Donor Facilitator	Very high / on-going	MoEA; MoFA			
3.4.	Mainstreaming trade into development	• Raise the visibility of trade and develop a more inclusive trade agenda • Advocacy role for trade and development during preparation of the 11th FYP • Secure representation in annual work on budget • Liaise with authorities responsible for setting agenda of Round Table Meetings and arrange to have trade and investment issues to be discussed during next RT • With the Donor Facilitator, work on developing an Aid for Trade agenda • Use monitoring and evaluation to mainstream trade in development policies • Develop trade related indicators • Work with other ministries and agencies to develop intermediate steps to develop high-end services • Improve communication on trade policy and reach out to stakeholders	Very high / immediate	DoT, DoI,GNHC, MoIC, DHI	Policy, planning and advocacy.	Worked closely with the Donor Facilitator.	

		• Devise a linkages development policy: • One-stop centres • Local supplier upgrading programmes • Incentive schemes • Local content, export performance and transfer of technology requirements • Cluster industries. Rethink the incentive package for the current industrial estates	High/ 1-5 years			ITC has considerable experience in developing industrial linkages.	
		• Screening tool for existing policy and projects • Create a retrospective tool to 'clean out the closet,' reviewing areas where existing practice is not in line with GNH philosophy. This could initially include areas such as waste management, labour standards on industrial estates. • Feedback through G2C on policy and projects. A mechanism can be created using the G2C network for citizens to provide information and feedback on areas that they feel are not in line with GNH philosophy.	Medium/initiate mid 2012 Medium/initiate late 2012	GNHC, BCCI, Ministerial departments, Civil Society partners	Policy Task force. Consultancy. Policy Task Force	GNH screening tools already developed to screen new policies and projects. Use as basis to create a retroactive tool.	
3.5.	Establish an Economic Development Board (EDB)	• Responsible for : • Policy advocacy. • Image building. • Investor targeting and aftercare. • Trade and investment promotion. • Reducing bureaucratic barriers to domestic and foreign investment. • Training in trade and investment.	Medium to low/ one year	MoF, GNHC, MoAF, TCB, MoEA, RMA; Private Sector Committee; BCCI	Institutional development.	At the validation workshop, it was decided that it was premature to establish an EDB. This matter should be reviewed at a later stage.	

3.6.	Strengthen bilateral, regional and multilateral trade arrangements	• Bilateral and regional policies • Consider the unintended consequences of bilateral trade agreements. • Increase exports to Bangladesh: • Explore exportable products on top of the 18 items on which Bangladesh is offering duty-free treatment. • Identify potential buyers in Bangladesh. • Reduce transport and transit time by holding discussions with the Indian and Bangladesh officials at the Indo-Bangladesh transit posts. • Finalize a bilateral trade agreement with Nepal. • Encourage private sector collaboration with Thailand: • market survey in Thailand for Bhutanese exportable goods. • Identify projects for cooperation in production, manufacturing and services sectors.	Medium/two years	MoEA, DRC	Government policy.		
		• Make greater use of the GSP and EBA facilities for Bhutanese exports • Identify products on which preferences are being provided by developed countries under GSP; • Conduct trial marketing where exportable products match market entry conditions; and • Augment production capacities, where required.	High 2012	Department of Trade			
		• Assess nature of problems related to WTO accession • Set up a task force to identify key problems and actions required to protect Bhutan's objectives and way of life	Very high/ duration 6-9 months	GNHC/DoT Civil society and ministries involved in WTO negotiations.		This action was identified and suggested during the validation workshop.	

	• Capacity building and awareness programme • Make available technical assistance support from the WTO, UNCTAD, ITC and other relevant organizations; • Build capacity of trade officials in the field of trade policy management; and • Build awareness among parliamentarians, CSOs, business community, university students etc. on trade policy and its implications.	High/2012	Department of Trade	Collaborate with academic institutions.	UNCTAD, WTO, ITC etc..	
3.7. Improve the intellectual property framework	• Establish an intellectual property policy • Build capacity in private sector • Construct an inventory of traditional knowledge • carefully draft a plant-variety protection regime, so as to reconcile breeders' and farmers' rights, and preserve benefit-sharing mechanisms for traditional knowledge;	Medium				

4. TRADE FACILITATION AND LOGISTICS

Objectives	Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
4.1. Boost dry port operation and identify bottlenecks in clearance process	Measure clearance time at Phuenthsholing border station (customs and other border agencies) using a well-tested methodology such as the WCO Time Release study.	High/ immediate/3 months	MoEA DRC &BAFRA			$50,000

4.2.	Ensure a modern and efficient clearance process based on a fully automated customs clearing system, using risk management-based customs control procedures	• Component 1: Automated Clearance system • Evaluate the potential to optimize the use of the BACS, including lodging of electronic documents, web based architecture, and linkages with new Tax revenue system • Provide advice on development of new version of the BACS, or on sourcing of new software. • Prepare capacity building plan for IT department in line with the upgrades or new solution. • • Component 2: Risk Management Technique • Develop action plan • Design institutional framework, including setting up a risk management unit • Train staff on risks, risk criteria, and risk management techniques. • prepare risk management database • Develop electronic Risk Management module and integrate it into clearance automation software. • • Component 3: Development of soft infrastructure at border check points • Develop and build warehousing facilities • Cold storage facilities • Procure loading and unloading equipment	High/2013-2014	DRC, DoT		ADB's project for strengthening and updating the software and informatics procedures in the department of revenues and customs will start in first trimester of 2012. Need to ascertain that ADB will finance the up-date of the BACS or change of software.	Total $650,000

4.3.	Apply the corridor approach to analysis and exploration of alternative route to sea ports via Bangladesh and seek a bilateral accord with the Bangladesh Gvt.	Improve understanding of the corridor approach and identify best solutions Component 1: Freight transit corridor analysis Corridor performance measurement using established methodology, such as the UNESCAP corridor measurement tool. Carry out field surveys Component 2: Corridor cluster development Identify alternative corridors, stakeholders and infrastructures (operational level from private and public sector) and entry points of entry to Bhutan Facilitate dialogue over constraints and solutions to enable them to identify solutions to difficulties faced Develop an action plan for the implementation of these solutions. Based on results of above feasibility study, seek to conclude an interim bilateral transit with Bangladesh Discussion with the government of Bangladesh for a bilateral transit Agreement as their position to have a regional transit agreement to cover flow of goods to and from Bhutan, India and Nepal will be time consuming. Drafting, negotiating and signing a bilateral Agreement.	High/2012-13 High/2013-14	MoEA; RSTA (MoIC) , BCCI exporters, Bhutanese Exporters Association and Association of Bhutanese industries.	Consultancy, field visit, meetings with Indian authorities and Indian private sector.	SAARC's regional transport studies and SAARC technical and ministerial meetings.	Total : between $500,000 and $850,000

4.4.	Develop logistics skills of professionals of the industry	Develop and deliver a logistics training programme covering areas such as distribution channels, method of payments, and logistics management and system, and combining conceptual and practical hands-on training. Identify future delivery channels for this training programme. Assist MoLHR and private sector associates in identifying vocational training needs Organize vocational training for drivers and other handling labour.	Medium / 1.5 years	Agencies: RSTA, MoEA, MoL, BCCI & private sector associations and engineering / technology colleges.			$150'000

5. STANDARDS AND QUALITY INFRASTRUCTURE

Objectives		Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
5.1.	Develop national capacity to certify organic products for export	Obtain accreditation of BAFRA as national organics certifying body by internationally-recognized accreditation organization. Extend contract of international long-term expert (provided by National Organics Programme to BAFRA) to assist implementation of certification role.	Very high Very high	BAFRA BAFRA	TA; international trade promotion.	ADB MSME Sector Development Project 2008-2011 has provided some limited support for training of BAFRA staff.	$25,000 $100,000
5.2.	Develop national capacity to identify, evaluate and manage biosecurity risks and for emergency planning	Ensure that BAFRA has sufficient senior professional staff to fulfill its mandate. Appoint biosecurity expert for a two-year term to train BAFRA staff in biosecurity risk analysis and emergency planning, facilitate preparation of Biosecurity Act, etc. Provide additional screening equipment for cargo and passengers' luggage at border entry points.	Very high Very high High	MAF/BAFRA BSB BAFRA, BSB BAFRA, BSB	Capacity building TA Procurement		Approximately $30,000 per annum for RGoB $300,000 $500,000
5.3.	Strengthen analytical capabilities for food safety	Provide adequate scientific staff to maintain NFTL's international accreditation.	High	MAF/BAFRA BSB	HR & capacity building	UNIDO SAARC-SMTQ Project 2005-2011.	$16,000 per annum for RGB
5.4.	Strengthen plant pest/disease surveillance and identification	Up-grading the National Plant Reference Laboratory. Piloting plant pest and disease surveillance programme.	Low Low	NPPC/MAF BSB	TA; infrastructure Pilot programme		$1,300,000 $720,000

5.5.	Strengthen SMTQ capability	Institutional development of Bhutan Standards Bureau, including strategic planning, subordinate legislation, quality manuals, internet access, etc. Training of BSB staff in management, certification and standardization, etc. Up-grading of BSB testing laboratory including construction of new building, augmentation of equipment and training of laboratory staff.	Very high High Desirable	BSB BSB BSB	Technical assistance; infrastructure development TA, capacity building. TA, capacity building. infrast. development.	UNIDO SAARC-SMTQ Project 2005-2011; ADB MSME Sector Development Project 2008-2011.	$100,000 $75,000 $750,000

6. SECTORS AND SUB-SECTORS WITH EXPORT POTENTIAL

Objectives		Recommended Actions/Measures	Priority/time frame	Implementing agencies	Type of intervention	Related TA/investment Remarks	Tentative costing
6.1.	Manufacturing						
6.1.1.	Base metals and articles of base metal	Set up an independent internationally certified laboratory for testing the quality of the products. Improve roads. Connect with the Indian railway system (about 50km). Upgrade environmental protection to reduce pollution. Negotiate a reduction of tariff by Bangladesh on steel and steel products (currently at 36% and 10% respectively). Study and identify high-value energy-intensive industries.	High/2-3 years	MoEA, BSB, BCCI , NEC	Regulations, Technical and financial		Variable
6.1.2.	Minerals	Combat pollution and improve wellbeing of the workers. Facilitate access to land for added value indust. Processes.	High/2-3 years	MoEA Depart.Mining, NEC, BCCI	Financial and Regulations		Variable
6.1.3.	Chemical products	Encourage linkages between mineral extraction and transformation into chemical products. Combat pollution and improve wellbeing of the workers.	High/2-3 years, NEC	MoEA	Financial and regulations		Variable
6.1.4.	Agro product (mixture of juices)	Quality management systems need to embrace the use of Good Manufacturing Practices (GMP) and the Hazard Analysis Critical Control Point (HACCP) system as tools to upgrade quality and guarantee food safety. Ascertain the potential in water bottles.	Medium	MoEA; MoAF, NEC, BCCI	Financial, technical and training Consultancies		

6.1.5.	Handicraft	Focus on genuine traditional handicraft and improve the quality of raw materials and products. Attract foreign designers (Asia, Western) to make use Bhutanese textile in fashion collections and to adapt traditional designs to Western/Asian tastes.	Medium/2-3 years	MoEA	Financial, technical and training		
6.2.	Agriculture						
6.2.1.	An omnibus recommendation for citrus, apples and potatoes (see NES for more specific comments)	Develop the value chain with interventions in key links; e.g. coordinated collection and transportation, packaging and grading, auctioning process, improved markets and prices. Strengthen marketing and transportation infrastructure leading to improved price signals to producers, lower transaction cost and increase private sector investments. Upgrade marketing system. Simple grading at the farm level to improve product quality. Enhance capacity of extension agents; support development of private nurseries. Promote contract farming, business farming, agro-business, joint ventures & venture capitalist through more conducive policies and legal instruments.	Medium/2-3 years	MoAF	Financial, technical and training		<$500,000
6.2.2.	Citrus	Equip the newly established National Citrus Repository with required laboratory and nursery equipment/ tools for producing disease free grafted seedlings for rehabilitating declining citrus orchards from huanglongbing (HLB)/ex-citrus greening disease. Enhance the capacity of technicians from the National Seed Centre (formerly Druk Seed Corporation) and Research in diagnostic and operation of green houses and nurseries.	High	MoAF	Financial, technical and training		$500,000

6.2.3.	Cardamom	Eradicate crop diseases. Using disease-free planting materials obtained by modern technology of tissue culture can control the diseases. For this purpose, a tissue culture lab should be established. Train farmers best practices (upgraded production and drying technology) Develop national standards for quality and grading. Explore product diversification (catering spice industry, essential oil, cardamom paper, incense, color extraction).	High/2- 3 years Medium/2- 3 years Medium/2 -3 years Medium/2- 3 years	MoAF	Financial, technical and training		<$500,000
6.2.4.	Lemon grass	Encourage and promote lemon grass plantation areas. Train distillers for distillation and packaging. Offer alternative energy (possibly electricity so that less firewood is consumed).	Low/2- 3 years	Departments Forests & Energy	Regulations (incentives) and training		<$300,000
6.2.5.	Medicinal herbs and mushrooms	Encourage farmer and trader groups or associations to share marketing experiences, explore potentials for collaboration and introduce their products in bigger markets. Corporatize the production unit of the Institute of Traditional Medicine Services to improve its efficiency and its competitiveness. Explore the potential of local value addition and test products in local markets. Favour dissemination of reliable market information on a regular basis Set up modern facility to produce medicine with a research branch + packaging.	Medium/2- 3 years	MoAF Department of Forests	Regulations, technical and financial		
6.2.6.	Processing of non- timber forest produce	Facilitate collection, safe harvest and processing to value added products from non-timber forest produces.	Medium				

6.3.	SERVICES						
6.3.1.	Sustainable tourism						
6.3.1.1.	More accurately measure annual earnings generated by Bhutan's tourism sector in order to improve policies	At the country level: Review current method and assess alternative options. Design a system to calculate component parts as well as overall tourism contribution to GDP. Make recommendations for more policy-oriented data . Make recommendations to set in place a tourism accounting group for generating data and formulating related policy recommendations. Fully collect and publish the basic tourism statistics reported in the UNWTO's Compendium of Tourism Statistics. At the Dzongkhag level: Estimate total tourism-related spending in four Dzongkhags, (agricultural produce, labour, local transport, accommodation, retail and handicrafts). Mapping of supply chains and a standardized methodology will be prepared. Assess the number and type of local jobs –direct and indirect- created within the Dzongkhags.	Medium/initiate early 2012 Medium	TCB, NSB TCB, NSB, civil society	Consultancy Consultancy, including participation officials Dzonghags and TCB	In terms of addressing each of these actions, the TCB is currently in on-going dialogue with Dr Sarath Divisekera from the Centre for Tourism and Services Research at Victoria University, Melbourne, Australia.	$170,000 $ 120,000
6.3.1.2.	Promote a deeper understanding of sustainable tourism in Gvt. line agencies and senior officials at Dzongkhag level	To roll out tailor-made training programmes for: (1) secretaries and ministers, (2) directors of line departments and senior officials at the Dzongkhag level, and (3) front-line staff from the public and private sectors.	High/initiate mid 2012	TCB , NSB	Training and technical assistance	UNCTAD Train for Trade programme has developed a methodology for such training. Possible involvement of UNCTAD.	

6.3.1.3. Develop new tourism products, experiences and destinations	Review the policy, regulatory and enabling environment related to product development. Strengthen tourism-related supply chains and backward linkages to the domestic economy. Assess the demand from hotels/ restaurants and profile demand assuming target of 100,000 visitors per year. Review handling, packaging and processing and document steps to be taken to promote more hygienic and presentable products. Assess the institutional environment for strengthening market linkages and make recommendations Prepare with the Tarayana Foundation a TOR for a feasibility study for the production of pickles, jams and smoked fish.	Medium/initiate 2012 Medium/late 2012	TCB/MoAF, BCCI/ABTO, NEC	Consultancy Study	The UNWTO will contract a consultant to draft a destination development / tourism master plan The MoAF Agricultural Marketing Services 2009 "Demand Analysis of High-End Hotels in Thimphu" is a great start but probably needs updating; there is also a need to look at non-agricultural products and the like in the non-perishables sub-sector.	$65,000
6.3.1.4. Reduce carbon footprints	Consultancy required to develop a carbon footprint reduction strategy and implementation.	High/ implementation mid-2012	TCB, NEC	Consultancy, including awareness workshop		$150,000
6.3.2. Information and Communication Technologies						
6.3.2.1. Document and raise awareness of Bhutan as an ITeS destination	Identify & confirm ITeS niches for Bhutan: low end service delivery and data centre hosting & other opportunities? Substantiate & document advantages. Hire high profile firm or entity with ITeS expertise to do assessment of Bhutan as an FDI destination for ITeS. Develop marketing plan to promote ITeS offshoring and outsourcing in Bhutan Implement marketing plan: Identify venues and opportunities for communicating marketing plan & objectives of ITeS business plan. Participate in NASSCOM and other international venues to showcase Bhutan as an ITeS and FDI destination. Get Bhutan included in global market analyses.	HIGH/ immediate priority	MoEA, MoIC, MoF, Foreign Affairs, DHI, BCCI/ICT Association of Bhutan	Market research Marketing plan	Contract international marketing firm with expertise in this area.	USD 250-500K for developing the ITeS marketing plan. $1-2 M for implementing & participating in global venues, contracting ITeS marketing firms .

6.3.2.2. Enhance the attractiveness of Bhutan as an FDI destination for ITeS providers & investors	Continue to provide incentives to foreign firms to establish themselves in Bhutan in general and in the IT Park in particular. Include this as part of the ITeS marketing plan. for the IT Park and other ITeS opportunities Link marketing of IT Park to the marketing on the Education City – they are mutually supporting endeavours and equally attractive to potential investors and IT Park occupants as they play off one another. Make special provisions for facilitating transit through customs, including facilitating transit of goods and to a lesser extent services across the border with India to facilitate construction, trade in physical goods and related services that may be required by the tenants of the IT Park and of the Education City in particular and to facilitate fulfillment of e-trade transactions requiring the shipment and/or import of physical goods across the border. Facilitate access to labour, especially management and technical experts. This includes facilitating the employment and residence of foreign experts to help establish, manage and operate the ITeS businesses dependent on FDI or resident in the IT Park & the Education City. Continue to provide training incentives to prepare Bhutan graduates for the ITeS and related business and technical sectors. Continue to align formal education and vocational training services with the needs and circumstances of business in general and of the ITeS sector in particular.	HIGH/ immediate priority	MoEA, DHI, Ministry of Education, MoIC, MoF (Revenue & Customs Dept.), MoLHR , BCCI/ICT Association	Legal and fiscal policy measures Incentives gather statistics on trade in goods and services to undertake cost benefit analysis of RGoB investments in ITeS and related sectors.	Put into place governance mechanism to oversee these efforts. MOEA, MoF and MOIC to work together Create high-level governance mechanisms (as in the case of G2C project).	500K – 1 M for training incentives / year Loss of income from customs duties but more than offset by increased employment, tax revenue and GNP contributions from ICT & dependent firms.

6.3.2.3. Develop the national fibre-optic network backbone 6.3.2.4. Continue to develop state of the art broadband (fibre-optic and other) infrastructure that meets existing and near term needs	To complete the fibre optic network in Bhutan and connect the fibre network to all communities and their community centres (CCs). To continue to secure several redundant fibre optic connections to the main Internet backbone with India telecommunication service providers. To continue to seek QoS guarantees for backbone data services from Bhutan as well as Indian service providers. To continue to track market developments in ICT infrastructure and related innovations.	HIGH / Immediate priority to ensure connectivity and QoS, essential for ITeS operations that require real-time VoIP connections.	MoIC, Cabinet	Policy measures National broadband policy negotiations with the Bhutan Power Corporation and other service providers Hire high level experts Work closely with ITU	Continued investment in time and energy of the MoIC ITU training and support	Continuation present infrastructure financing level Consulting fees: 250- 500 K / year on this issue
6.3.2.5. Connect all communities to the Internet, to promote greater community participation and to enhance the capacity of all communities to become self sufficient	Complete building and connecting community centres (CCs) in each of the Gewogs. Focus specifically on the 45 Gewogs for which funding is not available. Undertake study of demand for telecommunications services (or use results of universal access market study if available). Develop community access business plan based on demand study and on resulting marketing plan. Seek to integrate this with activities that promote using the Internet for marketing local skills and resources and especially local businesses, such as local crafts and local and community based tourism (see some of the other projects or activities recommended below). Integrate with activities of the Education City project: distance learning.	HIGH / Immediate	MoIC in consultation with Bhutan Power Corporation, Bhutan Telecom and other service providers.	Construction: Build community access centres close to fibre optic termination points Telecommunication to link community access centres to fibre Awareness-promotion activities Training activities Develop G2C service counter concept	Japanese electrification project may be of assistance TA for marketing, business & training plans	1 M
6.3.2.6. Create a legal and policy environment that enables e-commerce and ICT- enabled business	Modernize & strengthen the ICT & Media law. and regulatory framework by redrafting the I&C&Media Act of 2006. Review the intellectual property rights provisions under law.	HIGH	MoIC	Review and rewrite by legal experts	Tender for TA for legal expert in telecommunications, ICT law, e-commerce, intellectual property rights, etc.	100 – 500 K

6.3.2.7. Enhance the efficiency and transparency of Govt. procurement and enhance access to government tender opportunities for SMEs. Promote e-commerce in government and beyond. Encourage SMEs to modernize	Automate procurement: Undertake a business process analysis (BPA) of the procurement process. Re-engineer the procurement process accordingly to make best use of automation. Set procurement policies: all ministries have to go to e-procurement by a certain date, etc. Do pilot project. Raise awareness among SMEs and train SMEs to better understand e-procurement to them Tender the operation of the e-procurement service on PPP basis (if possible).	HIGH/2013	MoF, all RGoB ministries & agencies, BCCI and ICT Association of Bhutan.	Establish policies Get all ministries / agencies on board Awareness promotion Training programme Incentives Develop pilot (on tender basis) Test Tender implementation	Contract to consultant Cost of server platform	150,000 / year over 3-4 years. "Start small" and grow from there.
6.3.2.8. Nurture Bhutanese entrepreneurs in the ICT sector, develop the Bhutan Innovation and Technology Centre (BITC) and the Thimphu TechPark Private Limited (TTPL). Establish collaboration linkages with the Education City	Assess market opportunities for Bhutanese entrepreneurs in the local, Indian and global market place Mobile phone app. development Programming, marketing platforms, service provision, etc. Develop a business incubation strategy for the BITC and beyond. Focused on meeting local needs. Develop a marketing plan for the BITC.	HIGH/Now	Thimphu TechPark Private Limited, Bhutan Innovation and Technology Centre, MoEA	MoIC, MoEA,	TA for planning TA for market study / assessment	150 K
6.3.3. Health						
6.3.3.1. Health services	Corporatize the production unit of the Institute of Traditional Medicine Services to improve its efficiency and its competitiveness. Create a medical college with Indian TA . Finalize operational requirements for high end specialized private health facilities.		MoEA MoH	Regulations, financial and technical		
6.3.4. Education						
6.3.4.1. Education services	Link the Education City to private sector, especially to the IT Park: a part of the curriculum should be in Information Technology (software programming). Facilitate private investment in educational and vocational institutes.		MoE,RUB, DHI, MoIC	Regulations and financial		

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The mission had valuable meetings with the Tourism Council of Bhutan, the ministries and departments of MoIC, BAFRA, SBS, Revenues and Customs, the Department of Industry, the Department of Cottage and SMEs, NSB, the Forestry and Agricultural Departments, MoE, MoLRH, RMA, the Bhutan Chamber of Commerce and Industry, operators and managers of SMEs and firms in various sectors. The mission also visited manufacturing firms in Phuentsholing and Pasakha, the regional Trade and Industry Office in Phuentsholing, and the IT Park in Thimphu. Two meetings took place with the EIF National Committee.

The mission met with representatives of international missions in Thimphu and exchanged views on trade and development issues with them. We would like to thank the UNDP Office in Thimphu which provided substantive comments and logistical support to the mission.

The overall coordination of the DTIS report was assumed by Mr. Georges Chapelier, who also prepared the Executive Summary and the Action Matrix. A team of highly qualified consultants contributed to the main report by preparing sector papers: Mr. Daniel Gay, trade economist; Mr. Achyut Bhandary, trade policy ; Ms. Birgit Viohl, expert in trade facilitation and logistics; Mr. Digby Gascoine, specialist in SPS and quality infrastructure; Ms. Alia Malik, specialist in poverty reduction and SMEs; Mr. Paul Roger, expert in sustainable tourism; Mr. Richard Labelle, expert in ICT policy and development; Mr. Thierry Paulmier, development economist; Mr. Sonam Tobgay, agronomist; and Mr. Yershey Dorji, specialist in forestry and medicinal plants. Substantive support was provided by Mr. David Luke, Head of the UNDP Trade and Human Development Office in Geneva and by Ms. Luisa Bernal, Policy Advisor.

INTRODUCTION

The preparation of the Diagnostic Trade Integrated Study (DTIS) for Bhutan occurs at a time of deep structural transformations of Bhutan's economy and society. In 2008, under the leadership of His Majesty King Jigme Khesar Namgyel Wangchuck, the country successfully accomplished its transition to a constitutional monarchy. The Constitution was adopted by the National Assembly after the first parliamentary elections. The different institutions that make up a democracy are in place and are functioning satisfactorily. Over the last decade, economic and social development has made great progress, as evidenced in a steady GDP growth rate of 9 percent with an accompanying reduction in poverty. Most Millennium Development Goals will be achieved by 2015.

At the beginning of 2010, a new cycle of investments in hydropower development was begun. These investments will result, as early as 2015, in a sharp increase in exports of electricity, fiscal revenues and GDP. The Government aims to reach economic self-sufficiency and the status of middle-income country, by 2020. The above achievements augur well for Bhutan, with the promise of a bright future.

The DTIS will contribute to the above changes by proposing a trade-centred approach to development. It will identify new prospects and new tools such as strengthening value chains and promoting linkages between firms, and opening up business opportunities for the poorest groups. It will also develop the institutional regulatory framework for trade and investment, a factor which will contribute to fuel the expansion and diversification of the economy.

During the first DTIS mission in May 2011, the Government pointed out that considerable diagnostic work had been carried out in preparation both for the 10th Five Year Plan, 2008-2013, which forms the basis of the country's poverty reduction strategy, and for the Economic Development Policy (EDP), 2010-2020. It was agreed that the DTIS would not repeat the research already undertaken, but would take into account the analyses and findings of previous reports and build on the reforms and programmes already underway. More specifically, it was agreed that the mandate given to the DTIS was to prepare an actionable programme which would focus on implementation issues related to the EDP priority growth sectors. At the special request of the RGoB, it was also agreed that one outcome of the DTIS would be the preparation of a National Export Strategy (NES).

The Bhutan DTIS comprises two volumes: the first is a classical DTIS document, based on the template prepared by the Enhanced Integrated Framework's Executive Secretariat. It comprises an Executive Summary with an Action Matrix, followed by the main report which reviews macro-economic performance, vulnerabilities and opportunities, trade and investment, the nature and importance of poverty, and 'behind the border' issues, notably transports and logistics and standards

and quality infrastructure. It also includes an assessment of priority sectors selected during the DTIS launching workshop in May 2011: the business environment, inclusive tourism, and information and communication technologies. The second volume presents the National Export Strategy (NES).

The NES is built on the findings, analyses and recommendations of the DTIS. However the aim has been to make the NES a self-standing document of immediate practical use. It goes further than the DTIS, as its preparation was informed by a prospective view of development. Its aim is to establish a dialogue with private sector operators, civil society and other ministries and agencies of the government; it includes very concrete proposals to respond to the needs identified by business operators.

The first section of the NES is a synthesis of the DTIS and therefore repeats some of its analyses. It reproduces relevant discussions and tables from the DTIS for ease of reference.

One option advocated throughout the document is that the NES will not try to select "champions", considering that this is the private sector's role. A good strategy should develop an enabling environment, identify sub-sectors which have a strong potential for growth if appropriate policy measures are adopted, build a consensus on priorities between public and private actors and seek leverage effects through carefully planned interactions among sectoral policies.

The priority actions identified in the NES are an integral part of the Action Matrix which is attached to the DTIS. These priority actions could be financed by the national budget, resources available under Tier 2 of the EIF Trust Fund, or bilateral and multilateral donor programmes. In this regard, the EIF Action Matrix will also provide the foundation for a future Aid for Trade programme.

One important feature of the NES is that it is a "living" document that will be updated periodically to take into account achievements, new market opportunities and alliances, threats from competitors, technological innovations, and changes in the international environment or in the policies of the Royal Government of Bhutan.

1 COUNTRY BACKGROUND

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CHAPTER 1. COUNTRY BACKGROUND

The Kingdom of Bhutan is a small mountainous country (38,394 km^2), a little larger than Switzerland. Located in the Eastern Himalayas, it is bordered to the north by the Tibet Autonomous Region (People's Republic of China) and to the west, south and east by the Indian states of Arunachal Pradesh, Assam, West Bengal and Sikkim. Other nearby countries are Nepal and Bangladesh.

Elevation ranges from 200 meters in the southern foothills to the sub-alpine Himalayan heights in the north, with peaks exceeding 7,000 meters. The topography is often extreme, characterized by high, sheer mountains, isolated valleys, deep forests and fast flowing rivers. The climate is affected by the monsoon. Geographic diversity contributes to Bhutan's extraordinary range of biodiversity and ecosystems. The desire to preserve this outstanding natural heritage is reflected in the Constitution, which states that 60 percent of the land area should remain under forest cover (in 2010, an estimated 72 percent of the territory was under forest cover) and designates 40 percent to be preserved as national parks, reserves and protected areas. Arable land occupies no more than 8 percent of the country's surface area. Water resources are abundant and currently only 5 percent of the potential of hydropower generation is harnessed. Bhutan has one of the most intact ecosystems in the world and ranks among the top ten countries in terms of species density[17]. The Royal Government of Bhutan (RGoB) has a strong track record for environmental stewardship.

Bhutan is governed by three levels of administration: the central agencies, the Dzongkhags (20 districts) and Gewogs (village blocks). There are 20 Dzongkhags which are sub-divided into 205 Gewogs. Except for a few major towns, municipalities report to the dzonkhag administration. In 2005, Bhutan launched a decentralization programme. In 2010, the kingdom's population was estimated at 691,000 persons, of whom 64 percent live in rural areas and 36 percent in urban areas. Thimphu, the capital city, has a population of about 120,000 inhabitants. The population is young, with a median age estimated at 24.8 years in 2011.

17 *World Bank 2010, Country Partnership Strategy, FY 2011-14*

Map 1.1 Bhutan's administrative divisions

Up to 1960, Bhutan was cut from the world, the result of a self-imposed isolation. At about this time, the country started to open itself to the outside world, in a gradual fashion. In recent years, Bhutan's political system has peacefully evolved from a monarchy into a Democratic Constitutional Monarchy. Bhutan held its first democratic elections in March 2008. Two political parties stood for elections. The DPT won the elections, taking 45 out of 47 seats. The next elections will take place in 2013. This process towards a parliamentary democracy was completed on July 18, 2008, by the parliament's adoption of the Constitution. For many decades, Bhutan has enjoyed peace, harmony, political stability and a vibrant and intact culture.

The growth and poverty reduction strategy of Bhutan is underpinned by a unique national philosophy based on the holistic concept of Gross National Happiness (GNH) which was introduced in the 1970s by the Fourth King of Bhutan Jigme Singye Wangchuck. The GNH strives to balance spiritual and material advancement and is organized around four pillars: (i) sustainable and equitable economic growth, (ii) good governance, (iii) the preservation and sustainable use of the environment and (iv) the maintenance of Bhutan's rich cultural heritage and the respect of its values and emotional needs. These four pillars embody the guiding principles for national policies in Bhutan. GNH is an alternative paradigm for development, placing the same weight on the social, spiritual, cultural and emotional needs of society as it does on material and economic gain.

The Gross National Happiness Commission (GNHC) succeeded the Planning Commission in January 2008. Its mandate is to ensure

that GNH values are firmly embedded into policies and that proper coordination is undertaken to ensure implementation of plans and programmes. The GNHC was the key architect for the preparation of the 10th Five Year Plan, 2008-2013, which is equivalent to the Poverty Reduction Strategy Paper. In 2010, the Economic Development Policy (EDP) was approved and adopted by the Royal Government of Bhutan. The EDP aims to translate the broad programmatic objectives of the 10th FYP into operational policies, diversify economic base, promote entrepreneurship and accelerate the rate of transformation of the country in line with the GNH values.

In order to quantify GNH, the GNHC has launched a programme to measure happiness through biennial surveys covering a range of areas that are considered important to human happiness. These range from traditional culture and psychological wellbeing to access to rights and environmental factors. Furthermore, in mid-2011, the GNHC introduced a comprehensive policy screening tool, comprising 26 indicators. This tool will enable all new policies, programmes and projects to be thoroughly tested in order to ensure their conformity to GNH. Work is currently underway to prepare the 11th FYP, which will start in 2013.

Bhutan has been recognized by the United Nations as belonging to the category of Least Developed Countries (LDCs). The country suffers from the usual structural impediments of LDCs: the small size of the domestic market is a constraint to economies of scale; the high cost of imported inputs weighs against the development of a manufacturing sector; and relative isolation from the global markets is due to a very difficult geography and deep-rooted problems of transport and logistics. However, although Bhutan is landlocked and has a mountainous topography which makes trade more costly, it also has strong assets: political stability, an efficient and motivated public service, prudent management of the economy over a long period of time, robust institutions, the quasi-absence of corruption and a large potential for the generation of hydro-electricity. The country has also exceptionally good relations with India and its huge and fast-growing market.

2 PERFORMANCE OF THE ECONOMY

Source: Tshering Namgay, Kuensel

CHAPTER 2. PERFORMANCE OF THE ECONOMY

2.1. Growth path of the economy

Table 2.1

Sector-Wise Share in Real GDP (in %) Base year 1980			
year	Primary sector[1]	Secondary sector	Tertiary Sector
1990	44.6	23.3	32.1
2000	33.5	33.3	33.2
2008	21.2	39.7	39.8

Source: EDP for years 1990, 2000 and 2008

Over the last 30 years, the economy has gone through successive modernization processes. During this time, the primary sector has been reduced by half (from 44.6 percent to 21.2 percent of GDP) while the real GDP of the secondary sector has grown from 23 percent to nearly 40 percent, due to the stellar performance of the hydropower sector. The size of the tertiary sector has increased moderately over this period but the composition and subsectors comprising it have changed drastically. The hotel and restaurant subsector, quasi inexistent in 1990, has grown steadily, from 0.18 percent of real GDP in 1990 to 5.0 percent of real GDP in 2008. Transport, storage and communications have grown from 6.62 percent to 9.9 percent of real GDP in 2008. Redistribution in the labour market has not however followed these structural changes and 64 percent of the active population is still to be found in the primary sector. GDP growth has been rapid and has accelerated in recent years with influxes of investment and the development of the hydropower sector.

The first hydropower plant was commissioned in 1986. It was the beginning of deep, rapid and structural changes. During the 9th FYP, 2003-2008, the economy expanded at an average annual growth rate of 9.5 percent (with 12.5 percent for 2007 alone, the year of commissioning the Tala hydropower project). Growth was driven by a cycle of hydropower investments, followed by the sale of electricity to India, investments in infrastructures and basic services - roads and feeder roads, electrification, communications, health and education - as well as the rapid development of high-end tourism. Another benefit of the expansion of hydropower resources has been the development of industries – cement, ferro-alloys, carbides, dolomite, fruit juices - attracted by the availability of cheap energy and the possibilities of exporting to India. This development path based on capital-intensive projects has however generated few jobs.

Bhutan's hydropower is the mainstay of its economy, accounting for over 12 percent of its GDP and 45 percent of government revenues. With a hydropower potential of 30,000MW, it has exploited barely 5% of its potential with an installed hydro capacity of 1,500MW. Currently 25 percent of its total electricity generation is exported - all of which is to India. In 2010, Bhutan exported 5.6 billion units of electricity to India, valued at over $226 million. Recognizing the vast potential for tapping its hydro resources and the export market that India provides, Bhutan plans to export an additional 10,000MW by 2020. Projects are being developed in Bhutan with the assistance

of the Government of India, which has committed to provide grants and soft loans (40 percent grant and 60 percent loan) as well as buy-back of hydropower at commercial rates[18]. Energy-market formation and the possibility of energy trading with India and the region (i.e. Bangladesh and Nepal) offer possibilities of diversifying the export market and would require the establishment of power pools and energy exchange platforms for short and long power export and import contracts.

The donor community strongly supported the efforts of the RGoB, financing a large part of the investment budget. In 2009, net ODA flows originating from OECD countries to Bhutan amounted to $125 million. OECD data, however, do not include India's ODA to Bhutan which is estimated by the Royal Monetary Authority (RMA) to be $58 million. Over the past five years, the volume of grants and concessionary loans has remained high, at 17 percent of GDP in 2009/10 as against 12 percent of GDP in 2008/09. Most of the grants and concessionary loans were allocated to capital expenditure while domestic revenues financed the operational costs. Of the total capital expenditure, over 82 percent is estimated to have been financed by external grants and loans[19]. India alone accounts for more than 70 percent of budgetary grants during the 10th FYP. This high level of dependency on aid and the lack of predictability of aid flows at the 3 to 5 year horizon is a subject of concern for the RGoB.

Bhutan is fortunate to be located between the world's two largest countries, both of which are developing extremely rapidly. Bhutan's economy is closely linked to India through a Free Trade Agreement (FTA) and a currency peg, one for one, of the Ngultrum to the Indian rupee. Recently, the Ngultrum averaged 46 per dollar and, in tandem with the Indian rupee, appreciated by 2.6 percent against the dollar as of June 2010[20]. The exchange rate Ngultrum/$ was estimated by the IMF mission of December 2009 to be broadly in equilibrium.

Bhutan's Consumer Price Index (CPI) tends to follow closely the rate of inflation in India. But Bhutan imports inflation from India *inter alia* through higher prices for imported items, notably for meat, rice and vegetables. Inflation rose to 6.1 percent in the fourth quarter of FY 2010 from 3.0 percent a year earlier.

The budget deficit in FY 2010 is estimated at around 6% of GDP, higher than previously planned. This was due to unforeseen capital expenditure and contraction of non-tax revenue[21]. The fiscal deficit in FY 2011 is estimated at 4.4 percent of GDP, reflecting an increase in civil servant wages effective in January 2011. The RGoB's policy is to limit the overall deficit (including grants) to less than 5 percent of GDP. T-bills were introduced last year to finance the resource gap.

18 *Preconstruction works for the Punatsangchhu II (990 MW) and Mangdechhu (720 MW) projects started in May 2010.*

19 *Above data related to ODA are from the RMA 2011, Annual Report 2009/10, p. 60*

20 *Average from June 2009.*

21 *Asian Development Bank 2011, Bhutan Update, 2011. Non-tax revenues declined because of a 1-year gap in dividend receipts (Druk Holding & Investment was set up to own all major state-owned enterprises, so that dividends are not immediately passed through to the budget).*

Box 2.1 Exchange rate policy

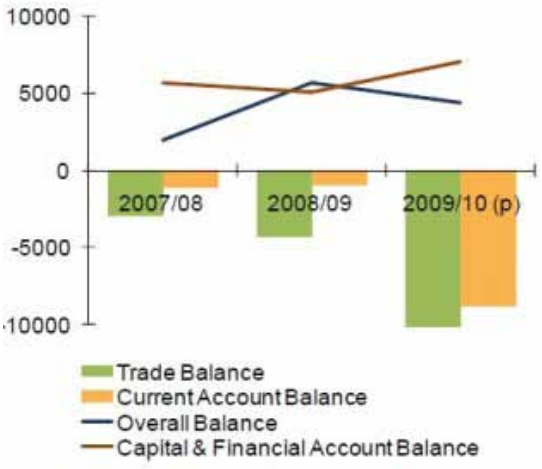
Developing countries that have managed to change their comparative advantages and to catch up to developed economies have implemented an appropriate exchange rate policy, usually characterized by the maintaining of an artificial undervaluation of their currency (Japan, South Korea, Taiwan, China). Bhutan's Ngultrum is currently pegged at par with the Indian Rupee. Considering the difference of development between India and Bhutan, this currency peg seems relatively high. It probably makes imports less expensive than they should be but at the same time it makes exports less competitive on the Indian market.

Moreover, as Bhutan is linked with India through trade (82% of exports and 75% of imports), rising consumer prices in India tend to spill over. Thus, year-on-year inflation rose to 6.1% in the fourth quarter of FY2010 from 3.0% a year earlier. Bhutan's competitiveness on third markets might also be compromised by an appreciation of the Indian rupee. Bhutan's endemic trade deficit with India also creates worries about rupee earnings. Finally, since Indian rupees are so far not convertible, the country needs to generate dollar earnings to trade with third countries. Bhutan trades in dollars even with neighbouring countries (Nepal, Bangladesh). Now that Bhutan's imports have more and more diversified, the country needs more and more hard currencies (dollar).

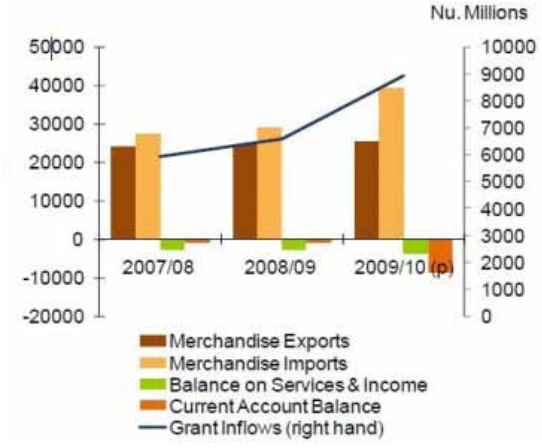
Bhutan's experts should analyze and work out scenarios built on the different options which Bhutan could consider regarding an optimal exchange rate policy (pegged exchange rate, crawling peg, pegged within a band, currency board, etc.) that would be supportive of the trade and industrial policies while taking fully into account the country's macro-economic particularities. The peg with the rupee seems to make sense, given the small size of the Bhutanese economy, the institutional difficulties associated with exchange rate management and the potential loss of investor confidence. However, pros and cons should be analyzed. Another option that policy makers should also explore is to gain competitiveness through structural reforms and diversification. In any case, as recommended in the latest IMF article IV, monetary operations and liquidity management could also be improved1.

Graph 2.1 BoP and Current Account

BoP



Current Account



The overall Balance of Payments, though lower than the previous year, continued to be positive in FY2009/10 on account of adjusting current transfer receipts and net inflows in the capital and financial account. Despite substantial current transfer receipts, deterioration in both the service and income accounts contributed to a larger current account deficit. The trade deficit grew to 22.8 percent of GDP, driven by a sharp growth in merchandise imports both from India and other countries (machinery, mechanical equipment and appliances as well as base metal and base metal products)[22]. In the financial account, capital transfers increased during the year due to substantial capital grants from the Government of India. Likewise, FDI-related flows continued to grow. However, these positive developments were to some extent offset by large debt service obligations related to existing loan portfolios, both in convertible currency and in rupees. The current account is projected to worsen during the 10th FYP due to an increase in the trade deficit and the interest payments for the Tala hydropower plant.

The external debt is projected to increase during the 10th FYP, driven by borrowings for new hydropower projects. The debt-to-GDP ratio is projected to rise from 54 percent in 2008/09 to about 80 percent by 2013, at the end of the 10th FYP. Nearly 98 percent of the country's debts are external, owed to India and serviced automatically through hydropower receipts. The external debt service ratio as a share of exports of goods and services is expected to decline to below 13 percent during the 10th FYP. A joint IMF/World Bank Debt Sustainability Analysis (DSA) suggests moderate risk of debt distress over 2008/09 and 2028/29.

During the FY 2009/10, Bhutan's international reserves grew by Nu 4.4 billion, equivalent to $868.1 million, as at the end of June 2010, which is adequate to finance 12.3 months of imports and covers 103.3 percent of total debt outstanding as of the same period.

The integration of Bhutan into the international

22 *RMA 2011, Annual Report 2009/10*

economy is weak and explains why the country was little affected by the global crisis of 2009. The downturn however depressed (i) the steel and ferro-silicon industries as the demand and prices for their products contracted in India, and (ii) tourism, a key source of foreign currency. In 2010, the economy rebounded to the levels of 2008. Results achieved during the first trimester of 2011 show that the economy is back on a growth path.

2.2. National growth strategy

One of the most important tenets of the national poverty reduction strategy outlined in the 10th Five Year Plan, 2008-13, - equivalent to a PRSP - is the "vitalization of industry". This Bhutanese concept covers manufacturing, crafts and services. The strategy aims to create income and employment, expand and diversify exports and reduce poverty. In this strategy, job creation by SMEs is the main conduit for reducing poverty. Another feature of the strategy is the targeting of the poor and the causes of poverty rather than the design and implementation of broad-based growth strategies.

The Economic Development Policy (EDP), 2010-2020, argues that an important burden for Bhutan's competitiveness is the fact that the country is landlocked. Taking into account this major constraint, the EDP has identified high-value and low-volume products and services which have a strong potential for accelerated growth, notably tourism, ICT and IT-enabled industries, cultural industries, construction and high-value niches for organic agricultural products. The development of "Brand Bhutan" is part of the strategy. The assumption made is that consumers will accept to pay more for branded products, which is probably true in industrialized countries where the market for organic products is growing fast. The middle class in developing countries is also interested by niche products. These services and goods are green products, with limited impact on the environment; they have a strong potential to expand and diversify exports. Competitiveness will be supported by different measures, including cutting transaction costs by developing special economic zones, industrial estates, dry ports and warehouses. Part of this transformation strategy is the "G2C" (Government to Citizen) initiative which aims at streamlining administrative processes. Some 110 processes, including some licenses for SMEs, have been cancelled or are being simplified, and internet connectivity and a host of ICT services will soon be available in each Gewog[23]. The objective of the EDP is to reach self-sufficiency by 2020.

2.3. Vulnerabilities and strengths

2.3.1. A narrow fiscal base and over-reliance on hydropower and ODA

Domestic revenue (excluding grants) financed 52 percent of the total outlay in FY 2008/09 and declined by 5.5 percent in 2009/10. Of the total domestic revenue, tax revenue and non-tax revenue constituted 59 percent and 37 percent respectively, while the remaining was on account of miscellaneous receipts. The corporate income tax (Nu 4.8 billion) alone accounted for 50.7 percent of tax revenue and is for a large part generated by the activity of hydropower plants24. Of the capital expenditures, over 82 percent is estimated to

23 *The administrative division of the country is based on Districts and each district comprises a number of Gewogs, which can be translated as "block". The Gewog is the smaller administrative unit.*

24 *RMA 2011, Annual Report 2009/10, p. 55*

be financed by external grants and loans[25]. This relatively high level of dependency on aid and the lack of predictability of aid flows at a 3 to 5 year horizon is a subject of concern for the RGoB. The stream of electricity revenues is easier to forecast but it depends on keeping on track with a heavy investment programme. Furthermore, in the long term, climate change could negatively affect the production of hydropower plants.

Since last year, Bhutan has moved from the low income category of the World Bank to the lower middle income group, $1,006-$3,975 GNI per capita. This means that in the coming years, irrespective of whether Bhutan remains an LDC or not, it will become ineligible for deeply concessional borrowings from the International Development Association (IDA). Bhutan may be placed under the 'blend' category of countries (eligible for both IDA and IBRD loans) from 2015 and it will be increasingly pushed to borrow from the IBRD at prevailing LIBOR market rates. In other words, financing the development of the country will become increasingly onerous.

In Annex 1, a discussion of the LDC status shows that Bhutan could graduate in 2021. Meanwhile, the country should take advantage of the benefits offered by that status, notably for market access.

2.3.2. Low employment expansion

During the last decade, the employment elasticity of economic growth has been particularly low. This could become a social problem, as it is projected that an increasing number of young people will obtain a professional or technical degree in the coming years. The rate of unemployment is around 2.5 percent of the active population, but this figure hides growing disparities. Young people are increasingly unemployed: from 4 percent a few years ago to 10 percent in 2010. The RGoB is responding to this challenge by creating an enabling environment for the private sector which should be an engine of growth - several reforms have already been passed - and the Ministry of Labour and Human Resources has increased its offer of short, practical training courses for young graduates. A comprehensive strategy for human resource development was also prepared in 2010.

2.3.3. "Resource curse" and Dutch disease

The risk, as pointed out in a speech by Joseph Stiglitz during a visit to Bhutan in 2010, is that Bhutan becomes a "rich country with a poor population", meaning that the ready availability of revenues from hydropower comes to dominate economic activity and is not used to further the ends of development. In other terms, rent-seeking activity from electricity, and in the future water supply and mining, could become entrenched at the expense of other domestic economic activities and exports[26].

At present, there is no sign of the beginning

25 *ODA data ibid, p. 60*

26 *Economic rent is defined as the difference between the price at which an output from a resource can be sold, and its extraction and production costs, including normal returns. For natural resources such as minerals, it is usually known as resource rent. Rent-seeking is the extraction of rent by manipulating the social or political environment in which economic activities occur, rather than by adding value. There is often a risk that natural resource companies manipulate the institutional environment to gain protection from foreign or domestic competition, and that they continue to supply traditional customers rather than diversifying markets with secondary benefits to the domestic economy.*

of Dutch disease. The risk is limited because a resource-driven appreciation of the Ngultrum, that would make non-resource exports uncompetitive, is highly improbable. Both the nominal and effective exchange rates between the Ngultrum and the rupee are likely to remain stable as a result of the predominance of trade with India and the alignment of inflation in the two countries. Moreover, foreign investment in mining is prohibited. However, trade policies in resource-rich Bhutan should take account of the so-called 'resource curse' and seek policy response to the potential danger of Dutch disease.

One effective response is to diversify the economy and exports. To do so, Bhutan must use its comparative advantages in tourism, electricity, water and therefore capital-intensive industry to develop a vibrant and diversified economy[27]. This can be achieved partly through the use of government tax revenues from electricity, mining and ferro-alloys to invest in the relevant prerequisites for high value-adding activity. It will remain important not to squander government revenues from these sources. It is also critical to put in place good health and education policies – particularly vocational training – at an early stage. Evidence from East Asia shows that human development was a prerequisite to economic growth rather than an accompaniment or an afterthought. If, unlike some high-saving Asian countries like China or Japan, access to domestic savings or low-cost borrowing is not possible, then an alternative is the development of private partnerships with foreign companies.

2.3.4. Demographic dividend

Bhutan is at a tipping point, as indicated by the sharp demographic changes which occurred during 2000-2010: the annual population growth has rapidly declined from 2.9 percent per year in 2000 to 1.5 percent in 2009[28]. These changes are coming with a dividend, as in the coming years, for a period of 10 to 15 years, young adults will enter into the work force, increasing the relative weight of the productive class aged between 18 to 60 years, while the relative weight of the group under age 17 will diminish. This situation constitutes a window of opportunity during which the active population will have fewer people to feed and care for. This demographic dividend will be reinforced by migrations from rural areas to towns. As young adults in the rural areas will be more educated, some will aspire to another way of life and move to towns and cities where they will enter into more productive jobs in services and manufacturing, contributing to additional growth. The outcome of these demographic changes will depend to a large extent on the capacity of the private sector to create jobs, and on an institutional framework supportive of the changes.

27 *This is the development strategy of the EDP 2010, which outlines key service sectors to be developed during the decade.*

28 *World Bank 2010, World Development Indicators Database.*

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3 POVERTY, INEQUALITY AND POVERTY REDUCTION POLICIES

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CHAPTER 3. POVERTY, INEQUALITY AND POVERTY REDUCTION POLICIES

Introduction

According to the Poverty Analysis Report (PAR) 2007, 23.2 percent of the population, or 146,100 people, were living below the national income poverty line of Nu 1,100 or $24 per month. There is no recent data, but the appraisal by Bhutanese statisticians of data to be released in 2012 is that the country has made considerable progress. Indeed, data collected for the MDGs show that Bhutan is on track to achieving nearly all of the MDG targets by 2015. According to the report *Bhutan's Progress: Midway to the Millennium Development Goals 2008*, Bhutan has already halved the number of under-weight children under-five, halved the proportion of Bhutanese people without access to sanitation and safe drinking water, and has successfully controlled diseases such as tuberculosis and malaria. For a broad overview of Bhutan's track record towards achieving the MDGs, see the chart in Annex 2. Nearly all areas are on track for being achieved in 2015[29]. The areas which still need attention include the proportion of the population below the minimum level of dietary energy consumption, the ratio of females to males in tertiary institutes, HIV case detection and the contraceptive prevalence rate as well as the youth unemployment rate.

Trade and the use of innovative approaches can create opportunities in support of poverty reduction. In order to understand how the costs of trade can be reduced and opportunities created for the poor, it is important to understand the nature of poverty in Bhutan. Accordingly, this chapter will provide a macroeconomic overview of poverty and inequality in Bhutan, the policies and initiatives underway to address poverty and the impact of policies to date.

3.1. Nature of poverty and inequality in Bhutan

Bringing an entire society above the poverty line is an important aim in itself as well as a foundation for other social progress. People not suffering from basic food and income insecurity are more able to work, learn, be healthy and productive, and contribute to their societies.

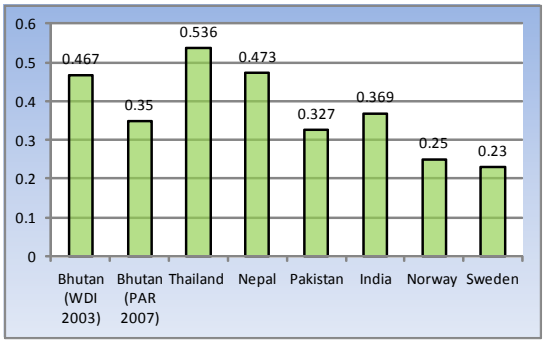
29 *See Annex 2: Progress towards achieving MDGs*

Table 3.1 Bhutan at a glance

	Figure	Unit	Date	Source
Population	708583	People	2010	World Development Indicators (WDI)
GNI per capita	1932	Current $	2010	WDI
PPP GNI per capita	4950	Current $	2010	WDI
Average GDP Growth	7.6	Percent	1980-2006	
Average GDP Growth	8.2	Percent	2004/2005-April 2011	State of the Nation 2011
HDI	0.619	Index 0-1	2009	HDR 2009
GINI Coefficient	0.35	Index 0-1	2007	PAR 2007
Life expectancy at birth	67	Years	2009	WDI
Life expectancy at birth (female)	68	Years	2009	WDI
Life expectancy at birth (male)	65	Years	2009	WDI
Literacy rate of population 6 years and above	56	% of people aged 15 and above	2007	PAR 2007
Literacy rate of population 6 years and above (female)	46	% of people aged 15 and above	2007	PAR 2007
Literacy rate of population 6 years and above (male)	66	% of people aged 15 and above	2007	PAR 2007
Poverty headcount ratio at national poverty line	23.2	% of population	2007	BLSS 2007
Trade deficit	11	Billion Nu	2010/2011	State of the Nation, 2011
Trade sector's contribution to national revenue (wholesale & retail)	22	% national revenue	2009/2010	State of the Nation, 2011
Employment in the trade sector	9.6	% of work force	2009	State of the Nation, 2011

Although GDP has experienced strong growth since 1980, not all members of society have benefited equally. While WDI figures are higher, Bhutan's Gini Coefficient as measured by the Poverty Analysis Report in 2007 is similar to that of India and Pakistan and less than that of Thailand and Nepal. According to PAR figures, if these are accurate, inequality would have fallen rapidly from 2003 to 2007.

Graph 3.1 GINI Coefficient

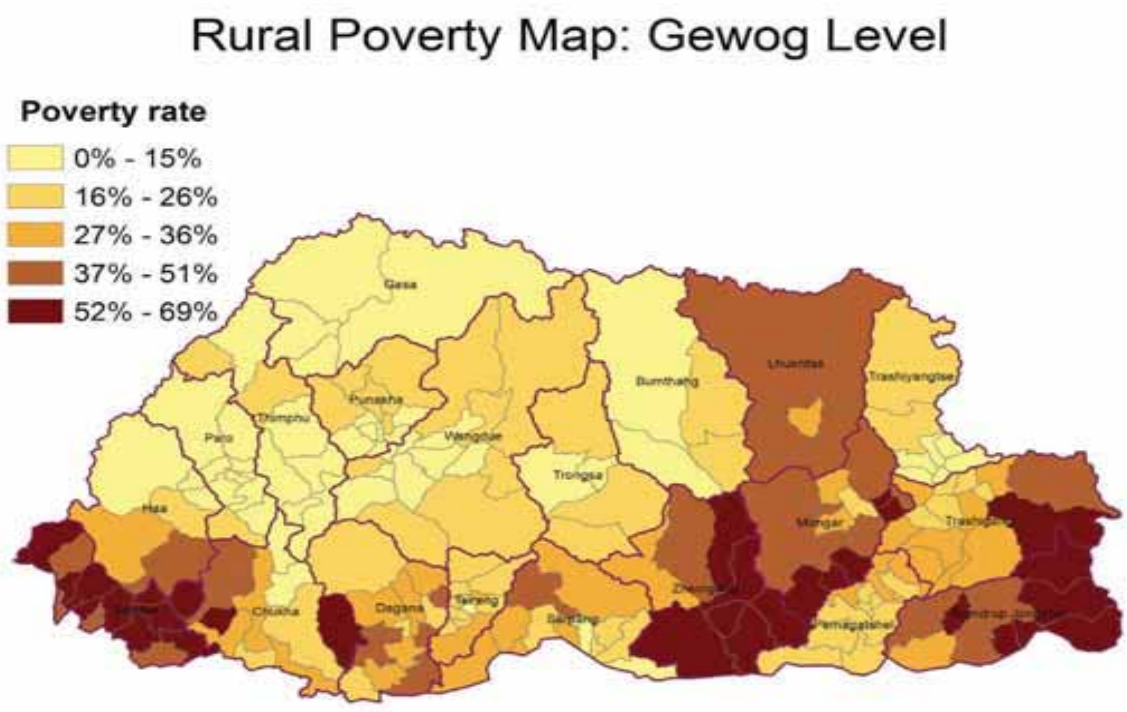


It is understood, however, that inequality remains high with the richest quintile, which consumes eight times more than the poorest[30]. In Bhutan, urban and western areas have benefited from GDP growth significantly more than rural areas and areas in the east of the country. With high inequality and a poverty line below $1 per day, both relative and absolute poverty were still high at the beginning of the 10th Five Year Plan (FYP).

While aggregate inequality is high, disaggregating inequality shows a different picture. It is interesting to note that within communities inequality is quite low. GINI coefficients in rural communities are generally well below 0.30 and even in Thimphu, the most unequal place to live in Bhutan, not much higher than 0.30. This means that people are not likely to be much poorer than their neighbours, which is generally considered positive for social cohesion. On the downside, development trajectories across the country have not been very balanced. If unchecked, this creates a risk of two different societies developing - one rural and poor, the other urban and affluent. The challenge of inequality in Bhutan is not that people are being left behind within their communities, but rather that whole communities are experiencing different growth trajectories across the country. Poverty is more concentrated in the eastern part of the country. In the north, however, rural poverty is not as high despite low population density. The west of Bhutan, in contrast, is more densely populated and is the political and economic centre of the country with better connectivity to domestic and international markets along with access to infrastructure.

30 *Royal Government of Bhutan 2011, Third Annual Report of Lyonchhen Jigmi Yoeser Thinley for the Seventh Session of the First Parliament on the State of the Nation, Thimphu, 1 July, p. 113*

Map 3.1



Source: World Bank poverty mapping

Poverty in Bhutan has a rural face: the poor are more likely to be employed in sectors such as agriculture and handicraft. Rural labour markets do not offer substantial income earning opportunities. The vitality of these communities is threatened by an increasing trend for the young and able-bodied to leave income poverty and their communities behind to go and work in the cities. Sixty percent of the population lives in rural areas, of which 30.9 percent are below the national income poverty line, compared with only 1.7 percent below the national income poverty line in urban areas[31]. In addition to income poverty, rural areas face other disadvantages, which in turn may compound their income inequality. Access to social services, economic opportunities and basic amenities are all significantly lower for rural areas. There is generally not enough population density to support a wide variety of economic activities to service and be serviced by the local economy.

People in rural areas find it harder to access markets or even to have road connections to markets. They are further afar from medical care and schools. The poor suffer from problems of inferior infrastructure, which is unsurprising given their dispersal across remote rural villages. According to the Population and Housing Census 2005, the poor are less likely

31 *UNDP 2009, "Poverty-environment linkages: initial lessons from Bhutan," in UN Newsletter Bhutan, December*

to have access to electricity, although rates of access have probably improved since then in the light of the government's commitment to rural electrification. It is much less efficient and cost effective to aim to provide the same level of services and infrastructure to small, disparate and remote rural communities as to urban centres.

Educational attainment is also lower for poorer people, although the starkness of this contrast is changing for younger generations. Older generations in rural places are largely illiterate. While there is also lower school attendance among the poorest quintile for 6 to 18 years, literacy is improving, as access to education on the whole has greatly improved.

Table 3.2 School attendance by income quintile

	Primary school net attendance ratio	Secondary school net attendance ratio
Poorest	84.7	30.7
Second	88.8	38.6
Third	93.5	50.8
Fourth	95.8	68.1
Richest	97	81.3

Source: Bhutan Multiple Indicator Survey 2010

With an average literacy rate of 55.5 percent, household heads in rural or poorer areas tend to be illiterate, while younger members of the family have at least attended primary school. Enrolment and literacy rates are significantly lower for the poor, for rural dwellers and for women.

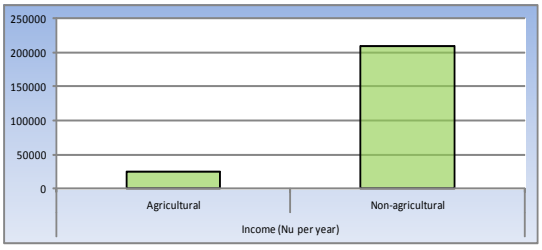
While women tend to be less educated, they do not tend to be poorer. Male-headed households tend to be poorer than female-headed households, particularly in rural areas (PAR 2007).

Poverty is closely correlated with family size and the occupation of the head of the household. Poorer households tend to be larger households (PAR 2007). They also tend to be households where the head of the household is employed in agriculture and traditional crafts. These sectors are not positioned for rapid growth in income-generating potential. The income-generating potential of both agriculture and traditional crafts can be advanced through development of SMEs related these sectors, as will be discussed in the following section. The agricultural sector is dominated by subsistence farming, and farms in Bhutan tend to be small and marginal, with small landholdings across a rugged terrain. This combination of fragmented landholdings and subsistence farming, which involves growing a highly diverse set of produce and poultry, is cited as the root of poverty in Bhutan. While only eight percent of the land in Bhutan is suitable for cultivation, agriculture is a central part of the Bhutanese economy and society. More than 59 percent of the Labour force is employed in agriculture. The sector has been slowly diversifying from subsistence farming towards a mix of subsistence and commercial farming since 2000, but incomes in this sector remain low[32]. Agriculture's relative contribution to GDP is also low, at only 14 percent of Bhutan's GDP[33].

32 *State of the Nation 2011, p. 28*

33 *State of the Nation 2011*

Graph 3.2 Agricultural and non-agricultural income



Source: RGoB 2010, Diagnostic Renewable Natural Resources Sector 2010, Agriculture/Forestry

Considering the number of people engaged in agriculture and its relatively low contribution to GDP, it is not surprising that average incomes in agriculture are relatively low. While the agricultural population has an average income of 25,000 Nu or $450 per year, non-agricultural income is almost ten times higher at 210,000 Nu or $4,615 per year.

Given this striking difference, it is interesting to examine the underlying causes for the income disparity between agricultural and non-agricultural employment. In many other countries, rising agricultural productivity lays the basis for an industrial revolution: in the classic Green Revolution scenario, as farms used inputs and mechanization to produce more food more cheaply, they required fewer Labourers, and populations moved to the cities to take employment in the industrial sector. In the case of Bhutan, there are several factors that make a conventional green revolution a challenging prospect. These include the both country's unique geography and its cultural and political preferences, such as maintaining a large proportion of forest cover and working with organic production. These preferences affect yield: it is important to note that poverty in Bhutan is correlated with lower agricultural yields, and that Bhutan's rice yields, for example, are among the lowest in South Asia[34]. Policy preferences in Bhutan also mean that farmers will not have the same access to fertilizer, pesticides and improved genetic seeds as farmers in other developing countries that have increased their agricultural productivity. The restrictions imposed on expanding arable land are a further factor that limits increases in agricultural production.

Bhutanese agriculture, as mentioned above, is largely characterized by traditional subsistence farming, which tends to accompany income poverty. On the other hand, while subsistence farming communities are likely to be cash poor, they may be rich in heritage and tradition, and have managed to preserve intact environmental conditions. These strengths are also priority areas under GNH philosophy, as discussed in the section below. It is troubling for the vitality of these communities that the demand for cash incomes forces many of the able-bodied men and women to leave their communities in search of paid employment. The decline of these communities poses some threat to maintaining traditional community structures.

3.2. Policy environment for poverty reduction

Bhutan's 10th FYP has identified, as one of the highest country's priorities, the reduction of poverty to 15 percent of the population by 2013. In order to step up progress in poverty alleviation, the national strategy proposes both a macroeconomic policy with a focus on poverty reduction and a number of targeted measures.

34 *National Statistics Bureau 2011, Poverty Maps of Bhutan.*

Implementation has been in partnership with other stakeholders, including NGOs and other relevant agencies. The macroeconomic policy aims to improve general economic growth as well as boosting sectors which provide important livelihoods for the poor, including agriculture, crafts and microenterprises. Other important initiatives in the 10th FYP include increasing rural electrification and the construction of feeder and farm roads. There is a commitment to connect all villages with electricity, with a combination of on-grid and off-grid options, by 2013. Great progress has been made in both. There is also a plan to set up Community Centres (CCs) at the local level to better connect rural people with information, markets and other resources. Financing has already been secured to establish 150 CCs.

Moreover, given that poverty in Bhutan is a rural phenomenon, there is also a focus on synergizing rural-urban development, urban-rural spatial planning, vitalizing industry, expanding strategic infrastructure, investing in human capital and fostering an enabling environment through good governance.

While the policy environment is generally highly conducive to poverty reduction, it is also important to note that there should be better coordination in order to prevent the duplication of efforts. For example, two separate departments in the MoEA and the MoAF are responsible for the marketing of crafts and agriculture respectively, while the newly created Agency for Promotion of Indigenous Crafts (APIC), under the MoEA, is also responsible for the marketing of crafts. For trade fairs and promotion the three groups would also work with the Bhutan Chamber of Commerce and Industry (BCCI). In several other areas there may be overlapping initiatives in marketing or at ground level. It will be important to coordinate resources and impacts in order to ensure that they are optimized.

In addition to establishing a general policy environment to support poverty reduction and increased economic activity, the RGoB is engaged in other efforts to alleviate poverty. In 2007, the Gross National Happiness Commission (GNHC) launched the Rural Economic Advancement Programme (REAP) to help reduce poverty in remote rural communities. REAP is implemented in consultation with the affected communities. Each intervention is designed specifically for its location, in close consultation with the villages and individuals concerned. The main objective is to reduce poverty at the village level by providing tailored support for sustainable livelihoods through income-generating activities. REAP is a flexible framework to support small and cottage industries or even housing construction, depending on the interest and expressed needs of the village involved. The framework is designed to be complementary to agriculture and to craft-related and other initiatives, but differs in its decentralized, localized and participatory approach.

3.2.1. Agriculture: towards organic, market-driven cultivation

As discussed above, the agricultural sector is characterized by fragmented small landholdings, highly diverse subsistence agriculture, and policy preferences favouring organic cultivation and a high degree of forest cover. Incomes in the sector are correspondingly low. Despite these challenges - and in fact using some of these to create advantages -

the Royal Government aims to produce more food, preserve traditional communities and improve livelihoods in the sector. In order to develop commercial agriculture and export propositions, the RGoB maintains an extensive network of extension workers at the village level. It has also developed a number of schemes to create economies of scale while working to improve infrastructure for transport and irrigation and developing marketing linkages both domestically and abroad.

A national irrigation policy has been drafted and is awaiting government approval. In the EDP 2010, 11 groups of agricultural and forest-based products are identified as priority growth areas. The Government plans to develop contract farming oriented toward export, as well as cooperatives and farmer groups for the production of prioritized products. The extension networks help to increase the production of identified products and work to overcome technological constraints and other bottlenecks. Developing potential synergies and economies of scale will be crucial for bolstering Bhutan's competitive advantage in agricultural products. The MoAF is in the process of identifying agricultural products suitable for commercial cultivation in each Gewog through field and market research. The MoAF policy of "One Gewog, Three Products" (OGTP) aims at identifying products in each Gewog for which there is a known market, and trying to create economies of scale through the coordinated scaling-up of production. The Ministry has identified production potentials, material availability and potential links to markets, resulting in a list of 61 products to market from all 205 Gewogs. Each Gewog will focus on the three products with the strongest income-generating potential. This approach will help expand the export base of agricultural production from the current mix dominated by potatoes, mandarins and apples. The OGTP policy is an important step which underlines the need to take a planned approach in light of the many challenges present in the sector.

Since 2006 the MoAF has begun by working with selected crops, such as wild lemon grass, red rice, and buckwheat. There are also initiatives to promote partnerships with domestic and regional markets as well as with countries further abroad, such as the US and Europe. Bhutan has also stated its intention to move towards being 100 percent organic by 2020. The MoAF is developing a master plan for organic farming, designed to make agricultural produce more suitable for export and create opportunities for agriculture to leverage the Brand Bhutan platform.

3.2.2. Promoting traditional crafts for sustainable livelihoods

The crafts sector is intimately connected to the agricultural sector and must also be used to preserve and develop traditional culture and livelihoods. Crafts are a very important source of livelihoods for poorer groups. The sector is estimated to employ over 13,000 people, contributing five percent of total employment and approximately one percent of GDP[35]. An estimated 65 percent of the population engaged in agriculture support themselves through crafts during the non-cultivation season.

The sector depends on the local and tourist market and faces a variety of challenges in terms of quality, price and authenticity. Competing crafts imported from neighbouring

35 *Royal Government of Bhutan 2010, Craft Sector Diagnostic.*

countries tend to be much cheaper and have a greater variety of saleable items; there is also the possibility of vendors selling imported crafts from Nepal, Tibet and India as being Bhutanese handicraft. This leads to disappointment for tourists and undermines the reputation of this element of the tourist industry.

A newly formed body, the Agency for the Promotion of Indigenous Crafts (APIC), under MoEA, will promote the growth of indigenous crafts by providing support in the marketing, design and branding of products. In cooperation with the Department of Cottage and Small Industries (DCSI), APIC is managing a permanent Bhutanese crafts-only bazaar on the street above the Tashi Taj Hotel in Thimphu. APIC is also hiring international and local staff for a Design Bank, which would be a product design resource centre for artisans seeking to produce more marketable crafts. APIC aims to create 1500 new jobs through emphasizing innovation, marketing and design, and supporting ongoing temporary and permanent Bhutan craft-promoting bazaars.

There are numerous government bodies and civil society groups with initiatives in support of agricultural and craft producers. They provide a range of support, from marketing platforms to designing and innovation. A first example is the programme by the Export Promotion Division in the Department of Trade, MoEA, focusing on promotion of handicraft. The EPD is responsible for:

- Coordinating the participation of Bhutanese exporters in regional and international fairs.
- Issuing certificates of origin
- Undertaking marketing studies.
- Providing training on costing and pricing, and the documentation and procedures necessary to prepare an export product offering.

The Department of Agriculture Marketing & Cooperatives under the MoAF is responsible for the export of agricultural produce.

A second example of the range of support available to the crafts sector is work by Bhutan Association of Women Entrepreneurs (BAOWE), which is considering initiatives ranging from a SAARC Trading House brand to an initiative called Women's Open Markets (WOM), that would provide business incubation services for women. These would include space, equipment, micro finance, capacity building for producers, as well as resources for packaging, labelling and marketing services of good quality at nominal charges.

The crafts sector receives a range of support to improve livelihoods and reduce costs of producing, marketing and trading products. The Handicraft Association of Bhutan provides training on vegetable dye and re-sells products for the textile chain to its members. There is also strong support for the preservation of traditional arts and crafts through institutions such as Zorig Chusum, although it is still unclear how to reconcile the two objectives of increasing saleability on the one hand, and preserving traditional methods and designs on the other[36]. The crafts sector also makes up a socially and economically important part of the micro and SME sector in Bhutan, as discussed below.

36 *Zorig Chusum is the School of Traditional Arts and Crafts.*

3.2.3. Creating a conducive environment for SMEs

Most of the active programmes are geared towards supporting cottage and small industries (CSIs). For example, it is now possible to obtain a license to operate online. For microenterprises, or those under 1,000,000 Nu, the starting procedure was significantly simplified in 2006. Since that date microenterprises need only to register: they do not require licenses, do not owe fees, and do not need to pay renewal fees. There is also an SME-friendly system for intellectual property (IP) in Bhutan. Anyone can apply locally for international trademarks, although awareness of this process and the related benefits may be low among SMEs.

There is also a range of support available to CSIs through a variety of government programmes. As a part of the Government to Citizen Project (G2C), there is plan to set up community centres at the local level, to supplement services provided by the six regional trade and industry offices. Work is being carried out at village level on infrastructure development at production sites for storing and processing perishables. Some project sites are even developing micro-processing and basic dry storage units. Lemon grass oil distillation, for example, is carried out at the harvest sites. Export promotion facilities in the Department of Trade help Bhutanese exporters to participate in trade fairs; they also provide exporters and producers with certificates of origin, and provide training and knowledge on costing, pricing, documentation and procedures. Programmes and efforts to provide support to CSIs tend to focus on smaller SMEs and are sector-specific.

Cottage and small industries in agriculture, crafts and other sectors all have a very important role to play in poverty reduction and job creation. The policy and operating environment for CSIs is improving, with strong programmes in place, particularly in the micro sector. However, it is important to improve access to appropriate funding for MSMEs of all sizes and to develop more diverse and cost-effective options. Support needs to be offered for expanding promising initiatives, such as APIC's design bank, and to help CSIs to innovate and overcome challenges in accessing professional services. It should also be remembered that while there is a strong policy environment in place, there are ongoing challenges to ensure that policies are operational.

4 STRUCTURE AND PATTERN OF TRADE AND FDI

CHAPTER 4. STRUCTURE AND PATTERN OF TRADE AND FDI

4.1. Trade

Since 1990, Bhutan has experienced a chronic trade deficit, with imports growing more rapidly than exports. In 2010, the trade deficit increased to an estimated 21 percent of GDP from 7.5 percent in 2009, with imports rising 39 percent as a result of requirements associated with hydropower works – heavy machinery, trucks and base metal – and a sharp increase in construction in urban areas. This marked increase in the deficit, however, is largely temporary and related to hydropower construction. It does not reflect a long-term trend.

Table 4.1 Trade by country and area, million Nu and % total (2008-2010)

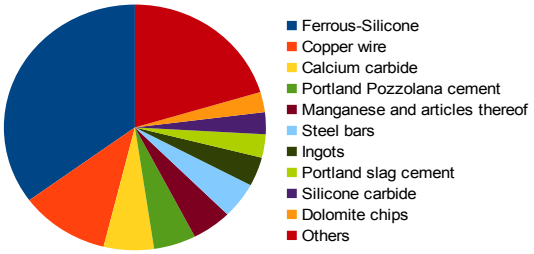
Country/ area		2008		2009		2010	
		Value	% total	Value	% total	Value	% total
India	Export	21480.02	95.08%	22434.39	93.50%	26000.89	88.67%
	Import	17339.55	73.80%	19968.01	77.85%	29338	75.06%
	Balance	4140.47		2466.38		-3337.11	
Bangladesh	Export	632.1	2.80%	758.03	3.16%	906.09	3.09%
	Import	123.55	0.53%	117.35	0.46%	190.12	0.49%
	Balance	508.55		640.68		715.97	
Nepal	Export	195.76	0.87%	84.85	0.35%	39.68	0.14%
	Import	128.42	0.55%	369.79	1.44%	585.51	1.50%
	Balance	67.34		-284.94		-545.83	
Other SAARC	Export	11.44	0.05%	0	0	1.13	0.00%
	Import	10.56	0.04%	0.16	0.00%	7.39	0.02%
	Balance	0.88		-0.16		-6.26	
Other BIMSTEC	Export	4.68	0.02%	0.27	0.00%	5.22	0.02%
	Import	410.76	1.75%	348.92	1.36%	988.1	2.53%
	Balance	406.08		-348.65		-982.88	
Rest of world	Export	266.64	1.18%	715.2	2.98%	2371.38	8.09%
	Import	5482.28	23.33%	4845.84	18.89%	7974.97	20.40%
	Balance	4286.4		-4130.64		-4,1566.11	
Total	Export	22590.64	100.00%	23992.74	100.00%	29324.39	100.00%
	Import	23495.12	100.00%	25650.17	100.00%	39084.09	100.00%
	Balance	-904.48		-1657.43		-9759.7	

Source: Compiled from Bhutan Trade Statistics, Department of Revenue and Customs, Ministry of Finance.

During the last five years, electricity, metal and mineral-related exports have increased significantly. Electricity exports in 2010, all of which went to India, were Nu 10,411 million ($231 million), which is over a third of total exports[37]. The following diagram demonstrates the predominance of ferro-alloys, calcium carbide, silicon manganese and silicon carbide in non-electricity exports. Together, these items have come to comprise 49% of total exports and 13 percent of GDP. With steel bars, ingots and copper wire, the total is 68.7 percent of exports, nearly a fifth of GDP. The category "Others" in the pie chart below includes agricultural exports, confirming that they make up a small part of overall exports.

37 *Hydropower accounts for approximately 20% of current GDP (IMF 2011, Bhutan: Article IV Consultation, p.7).*

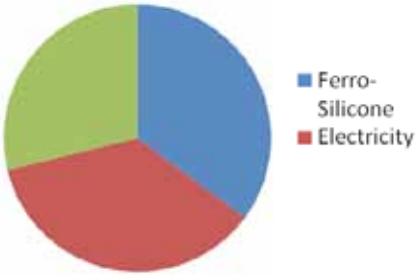
Graph 4.1 Composition of exports (2010)



Source: Bhutan 2010 Trade Statistics, Ministry of Finance

The following chart, using IMF data and including electricity exports, shows that overall, ferro-silicon and electricity dominate exports, together accounting for over two-thirds of the total. Tourism is ranked in fifth place, $36 million. However, new data released by the Tourism Council of Bhutan estimate that the overall contribution of tourism to the national economy would be about $89 million (including transport, handicraft, tourists who do not need visas - notably Indian citizens, and 4 and 5 star hotels). If this figure is adopted, tourism would rank third. Agricultural products are far behind, with a total of less 5 percent of the exports.

Graph 4.2 Composition of total trade including electricity, aggregated



Source: IMF 2011, Bhutan: Article IV Consultation

Table 4.2 Size of the selected industries in terms of export value

		Exports in value ($ million)	Share in export (%)
1.	Hydropower	226	34
2.	Base metals and articles of base metal	214	32
3.	Minerals	55	8
4.	Chemical products	37	5
5.	Tourism	36	5
6.	Mandarins	7	1
7.	Cardamoms	5	0.7
8.	Potatoes	4-6	0.6
9.	Apples	2.5	0.3
10.	Agro product	2.3	0.3
11.	Cordyceps	1	0.1
12.	Handicrafts	0.1	
13.	Red rice	0.14	
14.	Matsutake	0.07	
15.	Lemon grass	0.04	
16.	Handmade Paper	0.006	
17.	IT Services	0	
18.	Education services	0	
19.	Health services	0	
	Subtotal	590	88
	Total (hydropower, goods and tourism)	673	100

Concerning manufactured exports, products of chemical and allied industries managed to grow, moving from Nu 744 million in 2005 to Nu 1,052 million in 2009. Textile, footwear, headgear etc. decreased rapidly after 2005, from Nu 787 million to Nu 67 million in 2009, probably as a consequence of the end of the Multi-Fibre Arrangement (MFA). Periodically, there were significant variations in the export of magnetic discs, from Nu 546 million in 2005 to 3,627 million; 4,451 million; 0.0 and Nu 619 million until 2009. Consultations for the DTIS suggest that these variations are the result of short-term Indian investment in Phuentsholing which enabled a small company to export basic software on compact discs; the operation has now ceased.

Agricultural-based products and manufactured goods exports have gradually declined, each accounting for under 10 percent of exports as against 15.6 percent and 20.4 percent at the beginning of the period 2004-2009. For the agricultural sector, the value of the main exports – potatoes, mandarins and apples – remained stable during this period, while exports of processed food and beverages collapsed from a peak of Nu 1,866 million in 2007 to Nu 330 million in 2009. The most recent official data are not sufficiently disaggregated, but data from 2009 used in the UNCTAD 2011 report *Who is benefiting from trade liberalization in Bhutan: A gender perspective*, show that collectively potatoes, mandarins, juices and apples comprised 4.3 percent of total exports (including electricity). During the last three years an anomaly emerged: palm oil was imported from South East Asia countries and re-exported to India without transformation as Bhutanese companies took advantage of the free trade agreement between the two countries. The trade collapsed after the reduction of palm oil duty in India.

In terms of markets, Bhutan's diversification is also low. In 2010, India represented 82% of Bhutan's total exports and imports, followed far behind by Hong Kong (i.e. China) and Bangladesh, with respectively 12% and 5% of the country's total trade. Bhutan is almost in a monopsonist situation vis-à-vis India.

Table 4.3 Top 10 suppliers and markets of Bhutan (2010)

Suppliers	Import values in million Nu	Share in %	Markets	Export values in million Nu	Share in %
India	29,329	75.1	India	26,001	88.7
Korea South	2,005	5.1	Hong Kong	2,188	7.5
Thailand	988	2.5	Bangladesh	906	3.0
Singapore	903	2.3	Japan	132	0.5
Japan	845	2.2	Nepal	40	0.1
China	611	1.6	Singapore	20	<0.1
Nepal	586	1.5	Italy	15	<0.1
Indonesia	568	1.5	United States of America	8	<0.1
Sweden	550	1.4	Thailand	5	<0.1
Germany	362	0.9	Taiwan	3	<0.1
Rest of the world	2,329	6.0	Rest of the world	7	<0.1
Total	39,075		Total	29,324	100,0

Source: Bhutan Trade Statistics

It is interesting to compare trade in Bhutan with that of other countries at a similar level of income, and to benchmark it against South Asia. Although data are limited, Table 4.4 below, from the World Trade Indicators (WTI), confirms that applied tariffs on goods from countries other than India are relatively low, at 10.27 percent, although slightly higher than the South Asian and Lower Middle Income average. Bhutan has only three preferential trade agreements, which are again lower than comparators. This is also the case for the take-up of trade preferences with the US and EU: 0.24 percent for Bhutan, as against 4.08 percent for South Asia and 4.44 percent for lower middle income countries.

The latest WTI market and product diversification data show that only 77 items were exported, lower than in the previous period and much lower than comparators. The export concentration index is higher than the South Asian and Lower Middle Income average, indicating that Bhutan relies on a smaller number of products for the majority of its export income. The export concentration index rose consistently during the three periods indicated in the table, showing that Bhutan is becoming less diversified. However the import concentration index is at a similar level to that of the same period a decade earlier, despite having risen in the interim, and is lower than the South Asian and Lower Middle Income average. Finally, for the latest period, FDI inflows form a slightly higher proportion of GDP than in the rest of South Asia, although this figure is lower than the Lower Middle Income average. As a proportion of goods and services, FDI inflows were again considerably below comparators.

Table 4.4 Selected WTI data, Bhutan, South Asia and Lower Middle Income Countries

Indicators	Bhutan				South Asia	Lower Middle Income
Time Period	1995-1999	2000-2004	2005-2008	2006-09 Latest	2006-09 Latest	2006-09 Latest
Tariff escalation						
Average ROW Applied Tariff (incl. prefs) all Goods (%)	11.58	8.38	8.73	10.27	9.91	9.83
Preferential Trade						
No. of FTAs / CUs - Goods and Services	..	..	1.33	3	4.63	4.37
Preferences value (% of exports to US and EU)	..	..	0.24	0.24	4.08	4.44
Product and Market Diversification						
No. of products exported	30.80	79.80	107.5	77	169.6	200.5
Export product concentration index	35.33	36.89	44.07	62.66	35.79	43.35
Import product concentration index	11.54	16.42	12.12	11.44	16.76	17.25
Import source concentration index	71.29	..	..	..	27.59	27.48
FDI						
FDI inflows (% of GDP)	..	..	..	**1.97***	1.85	6.89
FDI inflows (% of exports of goods and services)	..	..	..	**4.57***	8.80	22.96

** DTIS mission's calculations*

Source: World Bank World Trade Indicators

Informal trade is significant, and is officially estimated by the Royal Monetary Authority at up to Nu 2 billion ($45 million) per year (approximately 7 percent of official goods exports). According to government estimates, 700-800 small private vehicles pass the border each day at the main border crossing of Phuentsholing alone, most of which are not inspected. Inspection of trucks and larger commercial vehicles is more stringent, creating incentives to carry smaller retail goods undeclared by car. Anecdotal observation showed that the border is very open, adding credibility to government estimates. Duty losses as a result of informal trade are likely to be minimal, given the duty-free trade agreement with India, and excise tax is only levied on domestic alcohol. However avoidance of sales tax is likely. With food taxed at 5-20 percent, it is possible that Customs is foregoing several million dollars of revenue as a result of illegal trade. In addition, Bhutanese alcoholic beverage dealers may be foregoing the brand registration fee of Nu 20,000 levied on foreign imports as well as a Nu 30 fee per case.

Services trade is currently small, constituting less than 5 percent of aggregate international trade. There was a provisional deficit of $22 million on the services account in 2010/11, as shown in the table below, although the deficit is projected to narrow in the years ahead: given the government's aim of developing services exports, principally via the development of IT and education parks, services debits are expected to increase by a smaller amount than services credits.

Table 4.5 Services trade, $ million

	2007/8	2008/9	2009/10	2010/11*	2011/12**	2012/13**	2013/14**	2014/15**
Services balance	-39	-19	-22	-22	-16	-12	-8	-4
Debit	55	57	69	74	84	97	112	130
Credit	-93	-75	-90	-96	-100	-109	-120	-134

Source: IMF 2011, Bhutan: Article IV Consultation

** Provisional; ** Projected*

NB. Credit plus debit do not equal the services balance in 2007/8 and 2008/9 due to rounding errors.

In addition to the direct contribution to income and employment, many other areas also affect overall economic performance, including finance, communications, transport, distribution, health, education, tourism, and other services. Companies report that infrastructure is inadequate, including telecommunications and transport. Access to finance also presents an obstacle to their operations.

Cross-border trade in road and air transport services is particularly important because the country is landlocked. Air transport remains limited to a small number of flights transporting tourists to and from a few destinations. The country remains dependent on road transport. Bhutan needs to upgrade the capacity of its road networks to carry larger vehicles and enhance the efficiency of cross-border transit (as detailed in Chapter VI). The government also needs to improve rural transport services. FDI in banking and communications could help develop these sectors, although there are some restrictions under the FDI policy. Reform would be appropriate in a number of areas – particularly telecoms, which have grown rapidly in recent years. The creation of an independent regulatory agency would help develop adequate regulatory and technical capacity for infrastructure sharing, interconnection and licensing, and provide open access to existing infrastructure using cost-based prices. If Bhutan acceded to the WTO under the General Agreement on Trade in Services (GATS), it would have to sign a standard telecoms reference paper which amongst other requirements sets out the regulatory environment. The banking sector, dominated by state-owned commercial banks and at the time of writing closed to new investment, has undergone some reform in recent years, although future financial liberalization should be tempered against the need to improve supervision and regulation.

4.2. Foreign Direct Investment (FDI)

FDI inflows, mostly in tourism and hospitality, began formally in 2002 following the adoption of the first FDI policy. In 2010, the Royal Government issued a more liberal FDI policy, based this time on a negative list[38]. Nearly all sectors are open to investors. PPP is the preferred modality for infrastructure projects.

According to the official RMA statistics, net inflows of FDI in FY 2009/10 were 0.9 percent of GDP, corresponding to Nu 534.6 million[39]. In FY 2011, FDI projects are estimated to reach Nu 1.1 billion (equivalent to $ 23.6 million), including the IT Park. As the following table shows, FDI fell steadily from 2006/7 to 2009/10 and is projected to pick up roughly to 2007/8 levels in the current financial year, which is nonetheless lower than five years previously. There were a total of 149 approved FDI joint ventures as of 2009/10. An additional nine FDI joint ventures are under review, targeting tourism, manufacturing and IT.

38 *Media and broadcasting; distribution services including wholesale, retail and micro trade; mining for the sale of minerals in primary or raw form; hotels 3-star and below; general health services; industries that do not meet the certificate of origin requirements; activities in the prohibited list.*

39 *RMA 2011, Annual Report 2009/10, p. 46*

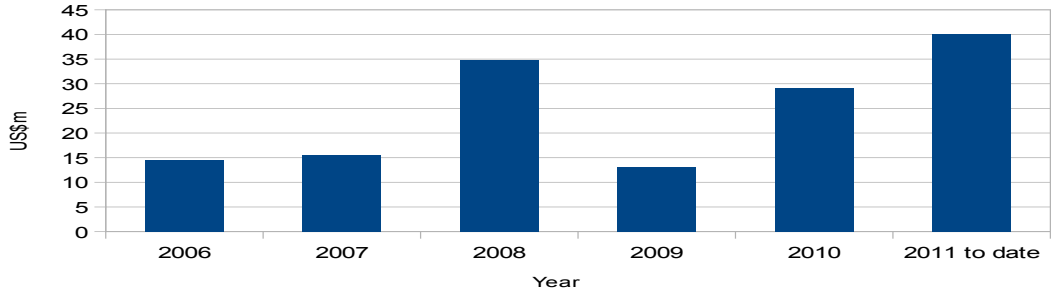
Table 4.6 FDI in Bhutan (net flows) Million Nu

	2006/07	2007/08	2008/09	2009/10 (p)	2010/11
FDI	3238.1	1198.3	710.8	534.6	1100.0
% of GDP	8.0	2.4	1.3	0.9	1.9

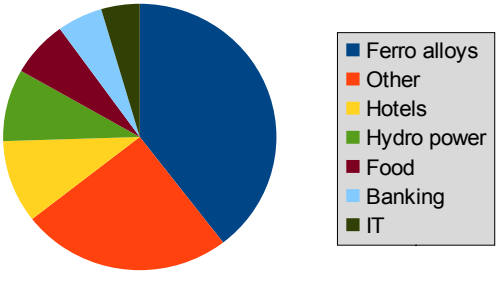
Sources: RMA 2011, Annual Report 2009/10, p. 46, and ADB for FY 2010/11

Notably, RMA figures are somewhat different from those provisionally collected by the Department of Industry. Raw data collected especially for the DTIS show roughly similar numbers for 2009-10, which is possibly explained by the collection of data over the calendar rather than the financial year, although there is a wide divergence in previous years. It must be emphasized that the data are only provisional. However, resolving this data conflict should be a priority as it severely undermines attempts to monitor and generate policy. Data from the Department of Industry are given below in graph form. The first graph shows that FDI inflows have increased over the five-year period, with a significant upturn in 2008.

Graph 4.3 FDI, $ million (2006-2011)



Graph 4.4 Total FDI, 2006 to date, by category



Source: Department of Industry, MoEA

If the data are correct, then ferro-alloys clearly benefited from the vast majority of investment over the period in question. This would support the findings of diagram 4.1 and confirms that there is a strong correlation between FDI and exports. Hotels and hydropower are the next biggest categories, followed by food, banking and IT.

While the government desires to promote FDI within the context of its development

philosophy of GNH, the domestic financial sector is highly undeveloped and the pool of available savings very small, while international borrowing seems likely to become more costly as the country develops. Bhutan must therefore rely to a large extent on foreign investment – none of which is likely to take the form of portfolio investment for some time yet.

Despite recent positive improvements in the FDI policy and the attraction of some promising new investments, it appears that the environment for FDI could be further refined and flows of FDI increased[40]. These changes need to be tackled institutionally, as explained in Chapter V. Numerous lessons can be learned from other countries. UNCTAD's Investment Policy Review series provides useful country experience.

Box 4.1 One stop shop for investment in Egypt

A good example of investment facilitation through a one stop shop can be found in Egypt. In January 2005, the Egyptian Investment Promotion Agency and the General Authority for Investment and Free Zones (GAFI), opened a fully-fledged one stop shop to facilitate establishment procedures. As a result, the number of procedural steps was reduced. GAFI records showed that over a period of one month the average amount of time it took to register a company was three days. In 1998 the procedure could take anything from between one and six months.

Source: UNCTAD, Investment Policy Review

The 2010 FDI Policy, underpinned by the 2010 Economic Development Policy, already represents a significant improvement in the framework for investors and includes a variety of fiscal incentives, specifically for priority sectors such as tourism, education, ICT, and infrastructure. The Government is currently working with international partners to review its investment legislation and formalize a new PPP policy.

In addition, membership in international investment treaties would help encourage incoming investment. International investment agreements reinforce domestic liberalization and underpin legal security for investment. In recent years a new generation of bilateral and regional investment agreements has emerged, together with a growing body of jurisprudence. The core provisions include:

- National treatment.
- Fair and equitable treatment.
- Dispute settlements mechanisms and arbitration procedures.
- Transparency.

Treaties contribute to a common understanding of provisions implications, and ultimately to better and more predictable outcomes for governments and investors. They help guarantee that their investments are relatively safe from expropriation, that disputes will be settled fairly, that they can repatriate profits and that the investment environment will remain predictable. These issues can be enshrined in domestic law.

Bhutan is not a member of the three main treaties, which are as follows:

- The International Convention for the Settlement of Investment Disputes

40 *The prior version of the FDI policy paper was based on a positive list, which was more restrictive.*

(ICSID).

- The United Nations Commission on International Trade Law (UNCITRAL).
- The United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the New York Convention).

The New York Convention provides greater latitude for a member state not to enforce an award if it is considered to run against public policy, whereas the other treaties are more binding. With the aim of providing reassurance to foreign investors, it may be worth considering membership at least of the New York Convention, if not UNCITRAL and ICSID.

4.3. Trade-related Technical Assistance (TRTA)

There are not many Technical Assistance (TA) projects aimed at supporting trade. Among those that exist is a TA project begun in mid-2000, financed by the EU, and implemented by ITC and United Nations Economic and Social Development in Asia and the Pacific (UNESCAP), that supported the following capacity-building activities[41]:

- Strengthening national capacities for trade negotiations.
- Developing trade policy (support to drafting the Trade Development Act, export regulations and import regulations).
- Strengthening the private sector to enable it to participate in regional and international trade.

The first phase of the project was completed by the end of 2009. A second phase will be launched in the first part of 2012.

Among other initiatives are the establishment last year by the Asian Development Bank (ADB) of a credit line of $1.5 million to facilitate the financing of exports and imports. Ad hoc assistance is currently provided by UNIDO and UNCTAD to strengthen standards and quality infrastructure; however more assistance is needed to meet the needs of the administration and achieve results[42]. On the subject of trade and poverty reduction, there are the study by UNCTAD on gender and trade liberalization in Bhutan, previously mentioned, and UNDP's National Human Development Report with a primary focus on climate change issues.

Other trade-related technical assistance (TRTA) projects currently being implemented are as follows:

- Royal Institute for Tourism & Hospitality (Austria).
- SMEs and private sector development (IFC, World Bank, ADB, UNDP).
- Credit line and guaranties for export (IFC, ADB and UNFCD).
- Information technology (World Bank).
- Transport (ADB, India).
- Rural electrification and connectivity (ADB, JICA).
- Finance and banking industry (ADB, IFC).
- Labour market and generation of employment (World Bank, UNDP).
- Medicinal plants, as part of the renewable natural resources project (EU).
- Competition and investment (consultancies by UNCTAD).

41 *Advocacy work was also part of the project. A documentary CD was prepared with information about the effects and changes that WTO may bring.*

42 *UNCTAD/FAO/IFOAM are partnering in a regional Asia Project (GOMA) to promote global organic market access and reduce trade barriers for organic agricultural products through harmonization, equivalence and other forms of cooperation on standards. The main focus of GOMA is the rapidly growing organic sector in Asia.*

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Matrix 4.1 DEVELOPMENT PARTNERS' ACTIVITIES IN TRADE-RELATED TECHNICAL ASSISTANCE AND INVESTMENT				
	Donor/ Agency	Subsector	Time frame/ type of intervention	Comments
TRADE POLICY AND REGULATION				
Trade policy				
	EU	Trade project, Phase II. Still under preparation. Should be ready by mid-2012	2011-2013 Technical assistance. (Umbrella project with components for private sector dev.)	Follow-up of Trade Project Phase I completed in 2009. Executed by ITC & ESCAP. Phase I focused on trade negotiations, strengthening private sector to participate in regional and intern. trade; institutional development: prepared a Trade Development Act , import and export regulations.
	UNCTAD	Trade gender perspective in Bhutan (report).	TA/ 2011	Contains policy recommendations.
	UNCTAD	Several ad hoc projects on investment policy, competition.	On-going	
	FAO-UNCTAD	Regional South East Project on certification of organic produce, SPS and market access of organics.	Start mid 2011 On-going	
	EIF	Diagnostic Trade Integration Study (DTIS).	2011	Implementation of Action Matrix will start in 2012.
	UNDP	Consultancy for developing "Brand Bhutan".	2011	
	UNDP	National Human Development Report 2011, with emphasis on climate change. Discuss inter alia impact of climate change on production and trade.	2011	
	WB/UNDP	Labour market and employment.	completed	
Trade facilitation				
	ADB	Support for upgrading the revenue system, including a strong IT component; some support to improve the BACS	2012 multi-year project	Project not yet signed.
	IFC	Project, Phase III, to improving licensing procedures.	Phase III	Substantial progress achieved with respect to project implementation.
	UNCTAD & UNIDO	Ad hoc consultancies to BAFRA and BSB on issues related to standards and quality infrastructure.	On-going	

Regional trade agreement (RTAs)				
Multilateral trade negotiations				
	WTO	TA short-term consultancies in support of negotiations, working visits to Geneva for countries in accession process to the WTO.		
	UNCTAD	Advisory and technical missions to advise on WTO accession, including training and consultations in UNCTAD Geneva. In the area of services: assistance in regulatory aspects, to ensure overall and subsector-specific coherence with Bhutan's services commitments.		TRTA in the post-accession phase to include training on preparing notification to WTO bodies; specific intensive training and its application in trade policy.
TRADE DEVELOPMENT CAPACITY BUILDING ACTIVITIES				
Business and other services				
	Austria	Private sector development.		
	EU	Support to Chamber of Commerce and professional associations; exporters.	2011-13	Part of the umbrella trade project (see above under Trade Policy).
	ADB	Private sector development focused on CSIs.		On-going support to DCSI.
	IFC	Survey of firms.		
	WB/IFC	Doing Business (annual report), Investment Climate.	On-going	
	WB	Development of finance sector.	2011 & onwards	Since mid-2011, credit cards are operational. Is now working with RMA on conditions for electronic transfers.
	WB	On-going work for establishing a Credit Information Bureau	2011 & onwards	Will facilitate access of SMES to banking services.
	WB/IFC	Advise on Special Economic Zones and industrial estates	onwards	Druk Holding & Investment is involved.
	UNDP	SMES and private sector development	completed	
	UNCTAD	Investment Guide to Bhutan.	On-going	Will be completed first quarter 2012.
Banking and financial services				
	Austria	Export finance credit		
	ADB	Support to RMA; Credit line to a private bank of $1.5 million for financing export-import.	2011	
	IFC	Venture capital.	2011 and onwards	Is looking at possibilities for developing venture capital.

	IFC	Strengthening Bhutan National Bank (credit for financing trade operations).	2011	Initially project of $1 million; following good results this year, an increase to $2 million is sought.
Agriculture				
	EC	Medicinal plants.		
	JICA	Horticulture research and development, vegetable crops, animal husbandry, food processing.	2009-14	Volunteers in the field.
	SNV	Market access, market development and market linkages, value chain analysis and inclusive business; Develop off-season vegetables production for export, publish studies on export potential.	On-going	Volunteers in the field.
	DANIDA	Within its participation in the multi-donors' Good Governance programme, supports the Land Commission which is involved in mapping agricultural lands.	On-going	
	GoI (India)	Agricultural marketing.		
	HELVETAS	Strengthening rural livelihood in targeted communities (focus on marketing and forums of producers and buyers).	On-going	
	HELVETAS	Rural development training (farm enterprises).	On-going	
	JICA	Strengthening capacity of vocational training institutes.	On-going	
Forestry				
	HELVETAS	Participatory forest management project.	On-going	
	SNV	Develop projects around non-forest products (medicinal products, bamboo…) and try to develop linkages with Bio Bhutan, keeping added value within the country.	On-going	Volunteers in the field.
	DANIDA	Within its programme for developing capacity, work is done with communities in forest areas on sustainable harvesting.		

Industry				
Mineral resources				
Tourism				
	Austria	Construction of Royal Institute for Tourism & Hospitality; TA for sustainable dev. of tourism (community-based tourism) in 2005.	TA / investment	50 students graduate every year; possibility of follow-up studies in Austria; provide also refresher training courses for people in hospitality industry.
ECONOMIC INFRASTRUCTURES				
Transport and storage				
	ADB	Study and financing construction of roads and highways.		
	JICA	Farm bridges.	2011-14	Counterpart funds.
	JICA	Farm bridges (additional to above project).	2008-13	
	SAARC	Regional Transport Master plan; ministerial meetings.	On-going	
Information and Communication Technologies				
	WB	Development of an IT park in Thimphu.	2011 onwards	WB brings $8 million ; IT Park will be operational end of 2011; RGoB arranged a PPP with a firm in Singapore.
Energy generation and distribution				
	GoI (India)	Feasibilities and construction work on hydropower plants.	On-going	India is financing hydropower plants through a mix of grants and loans; by the end of decade, PPPs are envisaged.
	Austria	Rural electrification.		
	ADB	Transmission lines and distribution lines; rural electrification; renewable energy.		
	JICA	Rural electrification.	2007-12 (loan) 2011-13 (loan)	Second loan for rural electrification.
	JICA	Efficiency for rural power supply.	2011-13	
	SNV	Renewable energy: biogas.		

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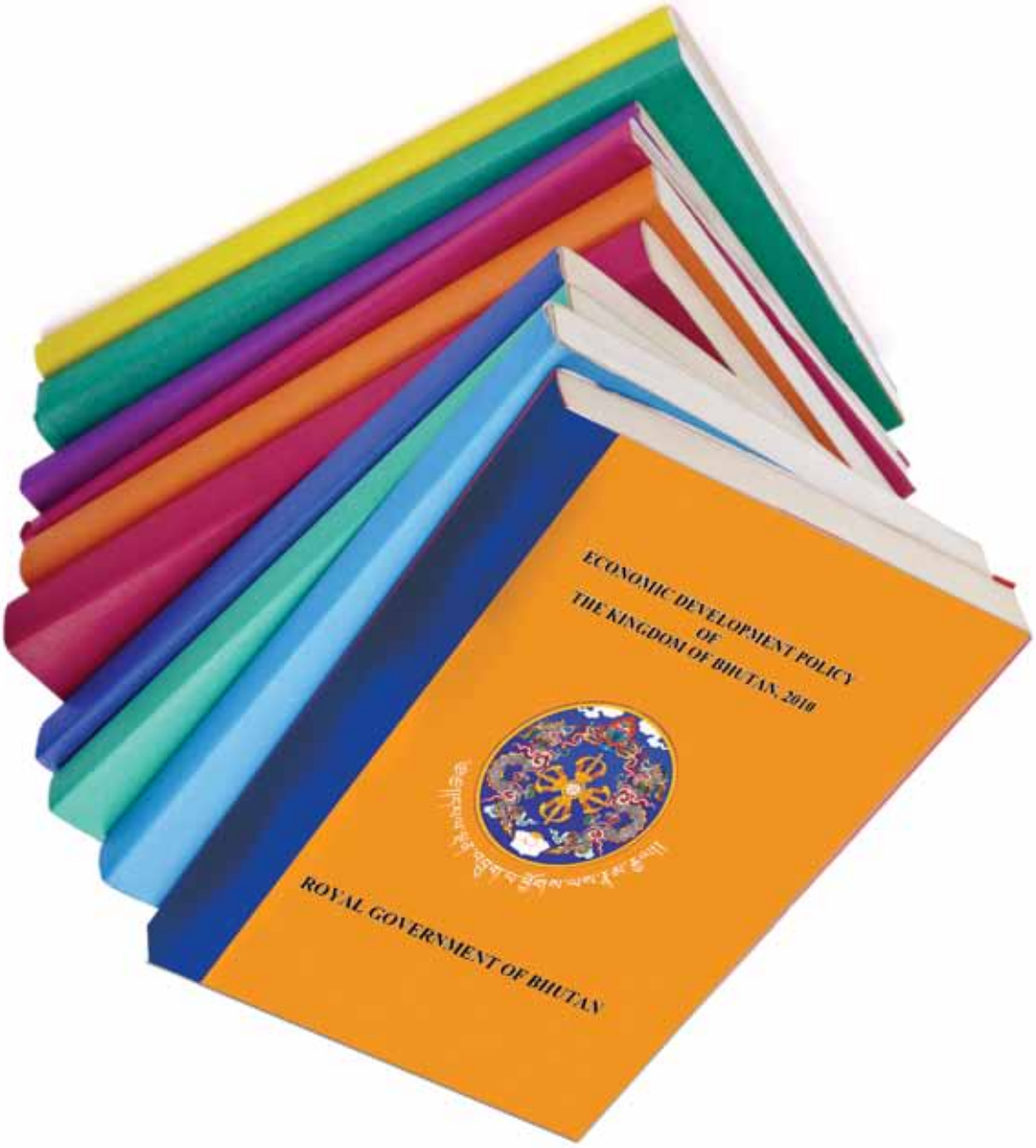
5 TRADE POLICY AND IMPLEMENTATION


ECONOMIC DEVELOPMENT POLICY
OF
THE KINGDOM OF BHUTAN, 2010
ROYAL GOVERNMENT OF BHUTAN

CHAPTER 5. POLICY AND IMPLEMENTATION

Introduction

Bhutan's economy is open, with exports averaging 38.2 percent of GDP over the last five years and imports averaging 52.6 percent over the same period, meaning that trade accounted for an average of 90.8 percent of GDP over the last five years. Despite an increase in absolute value, trade is declining as a proportion of economic output. Exports were half of GDP in 2007/8, compared with a projected 38 percent in 2011/12. Similarly, imports have fallen from 58 percent of GDP in 2007/8 to a projected 47.7 percent in 2011/12.

Bhutan's trade structure is dominated by its close relationship with India. A highly liberal bilateral Free Trade Agreement (FTA), which features no tariffs or rules of origin, means that the majority of trade is with India (nearly 90 percent of exports and three-quarters of imports) and is duty- and quota-free. Bhutan negotiated the FTA in 1972 and it is renegotiated every 10 years. The Ngultrum is pegged one-to-one with the Indian rupee, further aligning trade between the two countries.

As seen in Chapter IV, Bhutan's trade remains highly concentrated both by destination (India) and by commodity exports (electricity, ferro-alloys, basic industrial manufactures and minerals). Services exports are dominated by tourism. The composition of FDI further confirms this picture. Foreign investment has aimed at a select number of areas – ferro-alloys, hotels and resorts, and hydropower – a considerable proportion of which are, by value, from India. Moreover the trend is toward concentration of exports rather than diversification, with a move in recent years away from agricultural exports toward industrial manufactures, mineral resources and tourism. Whilst these latter activities generally add more value than agriculture, and are appropriate in an economy with relative capital-intensiveness and labour shortage, a lack of geographic and product diversification poses risks. Political conflict or a downturn in the Indian economy could slow economic growth, as could price volatility or supply disruption in the small number of products that currently comprise exports. The Bhutanese government is rightly focused on moving into areas of higher value addition, and it is trying to establish new export markets.

The increase of exports from capital-intensive industries - hydropower, metal and mineral extraction - raises the issue of possible environmental damage. Some critics have pointed out that this focus contradicts Bhutan's emphasis on sustainable development. However, the reality is that these industries are significant contributors to GDP, employment and government revenues (see Box 5.1 below), and that without them, the pace of development would be significantly lower. Most developing countries move through a phase of industrial manufacture before adopting higher value-adding activities. The challenge will be to use existing areas of revealed comparative advantage to develop desired future activities.

Box 5.1 Fuelling development: Bhutan Carbide and Chemicals Ltd.

Located on the periphery of the Pasakha industrial estate, about 16 km away from the southern town of Phuentsholing, Bhutan Carbide and Chemicals Ltd. (BCCL) is one of Bhutan's longest-standing industrial manufacturers, having been established in May 1988 with a World Bank loan. Tashi Commercial Corporation (TCC), Bhutan's largest conglomerate, owns 54%, and national financial institutions 34%. The remaining shares are publicly held.

Exports of almost Nu 1.8 billion ($41 million) were worth a tenth of Bhutan's total commodity exports in 2010 and 3% of GDP. In addition BCCL supplies a small proportion of its output to local steel plants. Of the two hundred workers employed at the factory, 94% are Bhutanese and 6% Indian.
The company supplies a third of India's requirement for calcium carbide – a product used to produce acetylene gas used in welding and cutting as well as a variety of products including batteries, plastics and paints. Some raw materials are sourced locally, in the form of limestone, and some from India – mostly charcoal to fire the two smelters.

In addition, BCCL produces silicon manganese, a product primarily used to deoxidize and increase the silicone content of steel. Both products are power intensive, using 3,500 kilowatt hours (kWh) and 4,200 kWh respectively per tonne. BCCL's management says that the factory operates year-round, despite the shortage of domestic electricity during the winter months.

BCCL represents some of the underlying realities of the Bhutanese economy. Bhutan's national image is based on Gross National Happiness, tourism and environmental conservation. But this picture is enabled partly by industrial production. Most national export earnings and government tax revenues come from mining and the approximately 20 companies operating in the Pasakha industrial estate. BCCL's export earnings alone are higher than annual income from the tourism levy (although secondary spending is estimated to raise total tourism earnings to around $90 million). BCCL's earnings are in rupees, currently in short supply. BCCL is the ninth-highest contributor to government revenues, at Nu 5.6 billion in 2010, behind a number of mining, equipment hire and industrial corporations. Contrary to popular perceptions about basic industrial manufactures, value-addition at BCCL and other similar operations in Bhutan is reasonably high, due to the low cost of electricity and the use of cheap domestic materials.

BCCL is viable partly because electricity is half the price per kWh than in neighbouring West Bengal. In Bhutan, as a result of the low electricity price and the relative scarcity of labour, capital-intensive activities are more profitable than labour-intensive activities – a reality reflected in the current composition of exports. Whilst BCCL faces possible competition from Indian operations using subsidized electricity in export processing zones, it would make more sense for India to specialize in labour-intensive activities and to continue to import some of its capital-intensive goods from Bhutan, with its comparative advantage in this area.

One of the main challenges faced by BCCL is government environmental regulation. When in 2009 the company applied to the government to convert a silicone manganese plan to calcium carbide, it reported a delay in the government's decision. Whilst the government quite rightly puts environmental preservation high on its agenda, several business people complain about delays in issuing clearances/licenses. A more rapid procedure – remaining just as environmentally stringent – would create a more predictable business environment.

The company's parent, TCC, is seeking to open a new smelter using its own funds and to substitute some imported raw materials for locally-sourced inputs. National linkages are small but growing. BCCL supplies part of its output to, and receives some inputs from, companies within the Pasakha industrial estate. Overall, although environmental concerns remain paramount, BCCL is well placed to provide some of the basic industrial inputs required to fuel the early stages of development in Bhutan's fast-growing economy as well as in the vast, rapidly-industrializing Indian economy.

Source: DTIS mission, meetings in Phuentsholing, August 2011

Bhutan has a further advantage in that it is relatively efficient at producing capital-intensive goods owing to its ability to produce electricity cheaply for most of the year[43]. Most countries begin the development process with a relative abundance of labour-intensive production, often through agriculture. Bhutan also has abundant supplies of water, which long-term forecasts suggest will prove a valuable commodity in years to come. The challenge will be to use the benefits from existing areas of comparative advantage to develop desired future activities.

Bhutan continues to import a large amount of food to meet domestic demand. The net food balance is negative, with an overall food trade deficit totaling Nu 1.6 billion, equivalent to 2.8 percent of GDP. Projections made by the Ministry of Agriculture and Forests suggest a doubling of the food demand by 2030. Improvements to production efficiency are possible, particularly in rice, but given the challenges of domestic commercial agricultural production, including a lack of land area for cultivation and the growth in domestic demand as the economy develops in coming years, it is unlikely that Bhutan will achieve a food trade balance in the foreseeable future. Its healthy trading relationship with India and the likelihood of further trade agreements with other countries suggest that this will not present significant problems. Moreover the trade deficit is expected to moderate to a sustainable level as hydropower projects come on stream. It would be better for Bhutan to specialize in areas of comparative advantage, including electricity-intensive activities and tourism, and to continue to import food from India and elsewhere.

Weaknesses in high-end services have a negative impact on the performance of the economy. FDI in banking and communications could help develop these sectors. Reform would be appropriate in a number of areas, particularly telecoms, which have grown rapidly in recent years. The creation of an independent regulatory agency would help develop adequate regulatory and technical capacity for infrastructure sharing, interconnection and licensing. It would also provide open access to existing infrastructure using cost-based prices. If Bhutan acceded to the WTO under the General Agreement on Trade in Services (GATS), it would have to sign a standard telecoms reference paper which amongst other things sets out the regulatory environment. The banking sector, dominated by state-owned commercial banks (at the time of writing closed to new investment), has undergone some reform in recent years, although future financial liberalization should be tempered against the need to improve supervision and regulation.

5.1. Bilateral trade

India is by far the biggest trading partner. Bangladesh is a distant second, with 3.09% of exports and 0.49% of imports in 2010. Exports to Bangladesh are primarily mandarins, apples, cardamom, fruit juices, dolomite, gypsum, coal and cement. Other trading partners are Nepal (gypsum, coal, cement and cordyceps) and SAARC and BIMSTEC countries, with the rest of the world accounting for 8.09% of exports and 20.4% of imports in 2010. The data

43 *Suggestions that the cessation of hydropower exports during the winter months constitutes a serious disadvantage are exaggerated. Bhutan runs a consistent trade surplus in electricity, while the government aims to significantly increase electricity production capacity by 2015.*

show a small geographical diversification of exports away from India over the past three years. Mostly this has been in the form of an increase in exports to Hong Kong (cordyceps and furniture) and Japan (ferro-silicon and mushrooms). However the destination of exports remains changeable on a yearly basis, and in 2010 the proportion of exports to countries other than India returned roughly to its 2005/06 level.

5.1.1. India

Whilst the government aims to take advantage of the flexibility of trading under bilateral agreements rather than multilaterally, this policy carries a number of existing and potential disadvantages. The highly liberal nature of the Indian agreement relative to trade with other countries means that it has the potential to divert trade to India. A number of products may be imported from India simply because duties are lower rather than because it is the most efficient import destination. For example, copper cables are coated in Bhutan and exported to India probably because tariffs on coated copper cable imports to Bhutan from Malaysia are lower than tariffs on exports from Malaysia directly to India.

In all countries, the avoidance of trade diversion is one of the prime reasons cited for multilateral trade liberalization. Moreover, Bhutan needs to be mindful that it will face preference erosion with India's signing Free Trade Agreements (FTAs) with other countries. India already has FTAs with Japan, Singapore, Malaysia, etc., and is likely to enter into more FTAs with other countries in the near future. In order to avoid preference erosion, Bhutanese exports have to be competitive on the Indian market and look for export destinations other than India.

Given the absence of rules of origin or duties on Indian imports, it is quite possible that exports originating in third countries are being artificially channeled through India – and indeed customs officials confirm that there is some evidence of this. Effectively, the Indian trade agreement compels Bhutan to negotiate lower tariffs in any bilateral agreement it pursues elsewhere, since other countries have an incentive to export duty free via India. For instance, if a Thai company faced a higher tariff on the exports it sends directly to Bhutan than on those it sends to India, the company would be perfectly within its rights to send its goods to India first, declare them as Indian, and then send them duty free to Bhutan, assuming that transport costs were no higher by following this procedure.

In a number of cases Bhutanese businesses have imported products from countries other than India and sold them to India under the duty-free arrangements in this way in order to benefit from the duty differential. For instance the Bhutanese Most Favoured Nation import duty for steel was lower than the Indian MFN duty of 40%, creating an opportunity for profiteering by Bhutanese companies. The Indian duty on palm oil was even higher, at 118%. When India lowered tariffs, the Bhutanese industries ceased operations. As long as the Indian bilateral agreement remains in place, and without an alignment of Bhutanese MFN duties with India's, this practice may reoccur in the future, particularly in the absence of rules of origin.

These difficulties are not insurmountable. However they require careful consideration

during the negotiation of bilateral agreements with other countries. Other governments and regions have found that the adoption of a large network of bilateral agreements can create mounting confusion and overlap, an outcome which has been labelled the 'spaghetti-bowl' due to its complex and intertwining relationships.

5.1.2. Bangladesh

Bhutan and Bangladesh have enjoyed a preferential trading arrangement since the late 1980s, within which both countries have now moved towards total removal of tariffs. Although Bhutan imposed no import duties on Bangladeshi goods from an early stage, this was reciprocated by Bangladesh only in 2010, in 18 tariff lines as given in the following table.

Table 5.1 Products entering Bangladesh duty free

Heading No.	H.S Code	Products
07.04	All H.S Codes	Cabbage, cauliflower, kohlrabi, kale and similar edible brassicas, fresh or chilled
07.08	All H.S Codes	Leguminous vegetables, shelled or unshelled, fresh or chilled
07.09	All H.S Codes	Other vegetables, fresh or chilled
08.05	08.05.10.10 08.05.10.90	Mandarins
08.08	All H.S Codes	Apple, pear and quince, fresh
09.04	09.04.20.10	Dried chilies
09.08	09.08.30.10 09.08.30.90	Cardamom
09.10	09.10.10.10 09.10.10.90	Ginger
13.01	13.01.90.00	Gum resin
20.09	All H.S Codes	Fruit juice (tinned or bottled) except pineapple and grapefruit
25.17	25.17.10.00	Boulders
25.18	25.20.10.00 25.18.20.00 25.18.30.00	Dolomite
25.20	25.20.10.00	Gypsum
25.21	25.21.00.00	Limestone
28.36	28.36.50.00	Calcium carbonate
44.03 44.04 44.05	All H.S Codes All H.S Codes All H.S Codes	Wood and timber
72.02	72.02.21.00	Ferro-silicon: containing by weight more than 55% of silicon
72.07	72.07.19.00	Billets/semi-finished products of iron or iron-alloy steel, NES

Source: Department of Trade

Despite the proximity of Bangladesh and trade between the two countries in a number of products, several problems remain for Bhutanese exporters. Chief among these is customs clearance at the Bangladesh border, which is slow and subject to corruption. Strikes in India were frequently mentioned as a challenge to both import and export, as they result in road blockages and hence the delay of goods in transit. Both of these problems can be addressed through trade agreements, both politically and at the technical level. Other trade blocs – notably the East African Community – have recently developed non-tariff barrier monitoring mechanisms coordinated at the regional level.

Discussion of Bhutanese exports-imports to and from third countries through Bangladeshi ports and the feasibility of a transit corridor are to be found in Chapter VI: Trade facilitation and logistics

5.1.3. Nepal

Nepal is about 180 km from Phuentsholing and much nearer to Samtse. The negotiation of a bilateral trade agreement began in 2010 and is making good progress, as reflected by the outcome of the second round of talks held on 24 and 25 May 2011 in Thimphu. Bhutan has proposed 55 tariff lines at four-digit level with approximately 100 products, while Nepal has put forward 49 tariff lines representing 158 products. The list can be revised later while renewing the agreement.

Bhutan's exports to Nepal fell from about Nu 195.76 million in 2008 to Nu 39.68 million in 2010, i.e. by almost 80 percent in two years, while imports are rising and were valued at Nu 585.51 million in 2010. The main exports are mango juice, gypsum, cement clinker and coal; major imports are pastas, cereal products, biscuits and pastries, soaps, textiles and garments, tents, sleeping bags, and handicrafts, construction materials, copper and aluminium wire, electrical transformers, insulated wires and cables.

5.1.4. Thailand

Thailand is an important member of the Bay of Bengal Initiative for Multisectoral and Economic Cooperation (BIMSTEC) with which Bhutan already has a growing trade volume. As well, the two countries also enjoy friendly relations. Talks on a bilateral trading arrangement are proceeding. Bhutanese exports in 2010 were valued at Nu 4.67 million, down from Nu 84.85 million in 2009, but imports had risen threefold from Nu 348.92 million in 2009 to Nu 988.10 million in 2010.

Thailand's trade is concentrated with its regional and bilateral trade partners: ASEAN, EFTA, China, USA, Japan and South Korea. Trade between Thailand and India is of the order of $10 billion; this figure is likely to double when the bilateral Free Trade Agreement (FTA) signed in 2003 is revised. Bangladesh and Sri Lanka also wish to conclude FTAs with Thailand. These initiatives point to the unsatisfactory progress in the conclusion of an FTA under BIMSTEC and the poor level of expectations when implemented.

5.1.5. China

Imports from China have been rising. They reached Nu 611.03 million in 2010 compared to Nu 487.29 million in 2009. A wide range of products is imported by sea, ranging from industrial inputs to consumer and capital goods. In addition, some informal imports

enter into Bhutan from its northern frontier, for which no data is available. Bhutanese exports to China are negligible. The two governments may wish to establish a bilateral trade agreement at some point in the future, given China's growing market and its geographical proximity. Bhutan may also want to negotiate a transit right with India for the use of the Nathula land post in the State of Sikkim for Bhutan-China trade.

5.1.6. Rest of the world: Generalized System of Preferences

Bhutan's share of trade with the rest of the world is around a fifth. Major items of exports to countries outside SAARC are red rice, handicrafts, handmade paper, lemon grass oil, cordyceps and mushrooms. Ferro-silicon, already exported to Japan, has also been exported to Italy recently under the Generalized System of Preferences (GSP) scheme. However, the volume is small and irregular.

The GSP offers non-reciprocal preferential market access to products from both developing and developed countries. Thirteen developed countries participate in the scheme and a large number of developing countries benefit from it[44]. The European Union's GSP scheme has three components: (i) standard GSP, (ii) GSP+, which provides additional benefits to offset adverse impact from complying with the objectives of sustainable development, labour standards and good governance, and (iii) the 'Everything but Arms' (EBA) initiative for the least developed countries (LDCs). The EU's GSP scheme covers about 7,000 products, of which 3,250 receive duty-free access and the rest enjoy lower tariffs than the MFN rates. The scheme has been extended till 2013, after which it will be revised. Though the objective is to reduce the number of beneficiary countries from 176 to 80, LDCs will continue to benefit from the scheme.

The United States of America extends the GSP scheme only and excludes apparel. It has not renewed the scheme, which covered around 5,000 products, since its expiry in December 2010.

The benefits from GSP are relatively small, due to several different factors: the rules of origin are strict; various non-tariff barriers are applied, particularly to agricultural products; a certain percentage of value addition is required for using imported inputs in processing; and preference margins are diminishing due to general tariff liberalization worldwide.

Bhutan's exports under the GSP in 2010 are given in the table below. The approximate value of these products was $1.86 million, equivalent to Nu 83.59 million, of which ferro-silicon exports to Japan represented 97.20%, followed by mushrooms, also exported to Japan. The Japanese GSP scheme is valid till March 2021. The EU extends the general GSP and EBA facility to Bhutan; however, Bhutan has been unable to make full use of this facility.

44 *Australia, Belarus, Bulgaria, Canada, Estonia, the European Union, Japan, New Zealand, Norway, the Russian Federation, Switzerland, Turkey, and the United States of America.*

Table 5.2 Exports under the GSP Scheme, 2010

Products	Destination	Value (in $)	Percentage
Ferro silicon	Japan	1,811,400.00	97.20
Fishing flies	UK, USA	6,750.89	0.36
Handmade paper	Netherlands, USA	5,456.73	0.29
Lemon grass oil	Germany	11,560.93	0.62
Mushrooms	Japan	28,078.22	1.51
Textiles	U.K	255.56	0.02
Total		**1,863,502.10**	

Source: Department of Trade

5.2. Regional Trade agreements

Bhutan is a founder member of both SAARC[45] and BIMSTEC[46]. The Agreement on South Asian Free Trade Area (SAFTA) is considered to be the most beneficial instrument of cooperation. The Agreement, signed in 2004, came into force in 2006. BIMSTEC was formed in 2003 to fast track regional cooperation, as SAARC was slowed by political differences among its principal members. However, progress within BIMSTEC also slowed down due to political instability in Thailand, and it is too early to predict whether the new Government in Bangkok will be more stable and take an active role in promoting trade under BIMSTEC. The regional cooperation under the two groupings extends over goods, services and investments. The negotiations in the latter two fields have not sufficiently progressed in both organizations.

5.2.1. SAFTA

SAFTA aims to reduce tariffs in stages to reach the 0-5% level by 2013, with a longer time frame for the LDCs to reach that goal by 2018 through a Trade Liberalization Programme (TLP), as shown in the table below[47]. It is based on the principles of national treatment, reciprocity and mutuality of benefits; the free flow of goods among member states through the elimination of tariffs, para-tariffs and non-tariff barriers; trade facilitation and harmonization of laws; and preferential and non-reciprocal treatment by non-LDCs of products of the LDCs. The TLP envisages safeguard measures for balance of payment difficulties and for other economic problems under which a member can forego its obligations under the Agreement.

Table 5.3 Plan for tariff reductions under SAFTA

Arrangement	Period	Tariff Reduction
Non-LDC to Non-LDC	3 Years (end of 2013)	0-5%
Non-LDC to LDC	3 Years (end of 2013)	0-5%
LDC to all Contracting States	8 Years (end of 2018)	0-5%
Sri Lanka	6 Years (end of 2016)	0-5%

Source: SAFTA Committee of Experts 2011, Report of the 6th meeting 11-12 June, Maldives

45 *Members of SAARC: Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka.*

46 *Members of BIMSTEC: Bangladesh, Bhutan, India, Myanmar, Nepal, Thailand and Sri Lanka.*

47 *Bangladesh, Bhutan and Nepal. The Maldives graduated from LDC status as from January 2011.*

Despite vast trade potential among the member countries, intra-regional trade is less than 5% of the total trade of SAARC countries, and less than half of it is recorded as trade under SAFTA. Countries like Bhutan, the Maldives and Nepal have not exported more under SAFTA[48]. Trade under SAFTA from 2007 to 2010 amounts to about $1.3 billion. The yearly trade flow is of the order of $322 million. Bangladesh and India are the main trading partners.

One of the reasons for low trade under SAFTA is the large number of products in the sensitive (negative) list, as can be seen in the following table. Bhutan has the fewest number of products in the list while Nepal has the most. As many as 69 products of export interest to Bhutan are not eligible for tariff concessions from Nepal. The rules of origin requiring 40 percent value addition (30 percent for LDCs) do not seem to be a hurdle for intra-SAARC trade. The SAARC member countries have decided to reduce the negative list by 20 percent, but no time frame has been given to achieve this objective.

Table 5.4 Number of products under the negative list of SAARC countries

Member State	Revised sensitive list as per HS 2007
Afghanistan	1072
Bangladesh	1233 (for LDCs); 1241 (for Non-LDCs)
Bhutan	150
India	480 (for LDCs); 868 (for Non-LDCs)
Maldives	681
Nepal	1257 (for LDCs); 1295 (for Non-LDCs)
Pakistan	1169
Sri Lanka	1042

Source: SAFTA Committee of Experts 2011, Report of the 6th meeting 11-12 June, Maldives

48 *Afghanistan acceded to SAFTA only in 2011.*

5.2.2. SAARC Agreement on Trade in Services (SATIS)

SAARC countries have also signed an Agreement on Trade in Services for cooperation in the services sector but the details of the sectors to be opened are yet to be negotiated. Trade in services will complement trade in goods as well as FDI in member countries.

The SATIS covers production, distribution, marketing, sale and delivery of services. It follows the principles of MFN and national treatment, although many of its obligations go beyond those of the WTO. The negotiations would be conducted on the basis of the positive list approach. The concessions exchanged would be reviewed and modified every three years. Although a provision for preferential treatment in respect of the LDCs is to be found in the Agreement, it is not binding, as it is only a 'best endeavour' clause. However, the LDCs are allowed to open fewer services sectors compared to the non-LDC states. Bhutan has not yet made its services offer for negotiations but the intention is to follow the strategy pursued in negotiations for accession to the WTO.

5.2.3. BIMSTEC

The BIMSTEC Trade Negotiating Committee is involved in negotiations of tariff concessions on goods, customs cooperation, services and investments. Although the Agreement on Trade in Goods and the required rules of origin have been finalized, the Agreement has yet to be signed.

The implementation of tariff reductions is planned as per the schedule given in the table below. The reductions are expected to commence in 2012 and be completed by 2023.

This schedule may not be followed strictly, as BIMSTEC has already missed its previous targets set in 2004, and meetings for trade negotiations are not held regularly.

Table 5.5 Tariff implementation schedule under the BIMSTEC FTA

Fast track

Countries	For India, Sri Lanka & Thailand	For Bangladesh, Bhutan, Myanmar & Nepal
India, Sri Lanka & Thailand	1 July 2012 to 30 June 2015	1 July 2012 to 30 June 2013
Bangladesh, Bhutan, Myanmar & Nepal	1 July 2012 to 30 June 2017	1 July 2012 to 30 June 2015

Normal track

Countries	For India, Sri Lanka & Thailand	For Bangladesh, Bhutan, Myanmar & Nepal
India, Sri Lanka & Thailand	1 July 2013 to 30 June 2018	1 July 2013 to 30 June 2016
Bangladesh, Bhutan, Myanmar & Nepal	1 July 2013 to 30 June 2023	1 July 2013 to 30 June 2021

Source: BIMSTEC Trade Negotiating Committee 2011, Report of the Nineteenth Meeting 21-23 February

The normal track reduction list and negative list would be reviewed every second year. Given the fast track negotiation of 10% of tariff lines and exclusion of 23percent in the negative list, the progress is likely to be slow and so the benefit for Bhutan may be limited. Product-specific rules on local value added content (LVAC) have been agreed at 35percent with 5percent concession in respect of the LDCs. It covers 142 tariff lines under HS 2007.

5.2.4. Recommendations

Based on the foregoing analysis, the following recommendations are made:

- **Continue to weigh the disadvantages of bilateral and regional agreements versus WTO accession.** Careful consideration should be given to the unintended consequences of bilateral trade agreements. Overall it would be desirable to avoid a complex web of agreements which artificially distort Bhutan's trade relations.

- **Work towards further increasing exports.** Both the government and the private sector should pursue this effort, as export potential to Bangladesh has not been fully realized. The proposal for conducting a marketing study in Bangladesh within the 2011-2012 fiscal year is a welcome development. The potential export items, apart from the 18 products on which tariffs have been waived, include potatoes, processed food, bottled water, particle board, coal, quartzite, cement, iron and steel construction materials.

- **Push for an interim bilateral transit agreement with Bangladesh to use the Chittagong and Mongla sea ports.** Given the pace of progress in South Asia in negotiating a regional Agreement, it is advisable for Bhutan to aim for an interim agreement to use these ports, which may be cheaper than using Kolkata[49]. It is recommended that a

49 *For instance, notwithstanding the local charges in transit, using the Mongla Port would be cheaper for Bhutan as the comparative cost of a 20ft container would be about $1,000.00 as against $1,800.00 to*

study be carried out to determine the most efficient and cost-effective trade routes to the two ports and the mode of transport to be used to connect Samtse (where the Dhamdum Industrial Estate is being planned), Phuentsholing, Gelephu and Samdrup Jongkhar.

- **Conclude a bilateral agreement with Nepal**. Bhutan and Nepal have not benefited from SAFTA and should conclude a bilateral agreement. The focus may be on non-agricultural products like minerals, metals, alcoholic and other beverages, bottled water and processed goods. The current absence of rules of origin for products like ginger, handmade paper and lemon grass oil means that some may be re-exported as Nepalese products. Bhutanese potatoes, for example, are already exported from India to Nepal as originating products. Concerning rules of origin, SAFTA allows for 70% import content for goods originating in the LDC member states for domestic processing. This may be the starting point for negotiations.

- **Encourage private sector collaboration**. In addition to a bilateral trade agreement with Thailand, private sector collaboration should be encouraged in order to expand and improve Bhutan's exports. The visit in July 2011 of a group of Thai entrepreneurs to explore business opportunities is a welcome development. More market research is required as a basis for negotiations. Potential export opportunities include mushrooms, cordyceps, and other agro-based and manufactured products as well as cultural products.

- **Make greater use of the GSP and EBA schemes.** Dissemination of information to the private sector may help, as well as training in export documentation. For instance, the USA offers duty-free access to hand-loomed and folklore wall hangings (HS 6304.99.10) and pillows (HS 6304.99.40). The export of Thanka paintings and religious scrolls may increase through this avenue.

5.3. Multilateral trade system

5.3.1. Need for full consideration of the costs and benefits of WTO accession

Bhutan's Working Party was established in 1999 and the memorandum on its Foreign Trade Regime submitted in 2003[50]. Considerable technical work has been completed, and from published and unpublished documents it is clear that in 2007 Bhutan had reached a relatively advanced stage[51]. Unofficially, however, the government has expressed a desire to suspend the accession process and in the meantime pursue bilateral and regional agreements.

Whatever the ultimate decision, it should be based on a full consideration of the costs and benefits. In particular the accession process should be based on consultation and debate with civil society and the private sector.

Kolkata.

50 *Source: http://www.wto.org/english/thewto_e/acc_e/a1_bhoutan_e.htm*

51 *E.g. Tobgay, S. 2007, Bhutan and the WTO: A Study on the Impact of Agriculture and Agriculture-related Issues in WTO Agreements on the Bhutanese Agriculture Sector, Thimphu*

5.3.2. Advantages of WTO accession

5.3.2.1 Opening up new opportunities, particularly in China. As Bhutan seeks to diversify exports both by country and product, multilateralism would open up new opportunities. Access to the Chinese market for exporters, as well as the import of cheaper Chinese goods and technology, would be of particular developmental benefit. Historically, political sensitivities have limited bilateral relations with China. WTO accession would enable Bhutan to trade more with China without the potential political repercussions of bilateral talks. Moreover, as Bhutan is an LDC, it could benefit from China's Duty-free Quota-free Scheme and the trade-related technical assistance that the country extends to LDCs. China has recently announced that it will provide 97% Duty-free Quota-free to LDCs[52].

5.3.2.2 Keeping up with all other trading partners. By staying outside the WTO Bhutan gains few of the benefits, whilst trading almost as if it were a WTO member (all trading partners, including India, are already members). Of the 48 LDCs, 31 are already WTO members, and 12 including Bhutan are in the process of accession. Countries like Samoa and Vanuatu, which are smaller than Bhutan, completed their accession process to the WTO in 2011 along with Russia. Russia membership brings WTO a step closer to achieving universality as an institution governing global trade, as it covers 99% of world trade within its framework.

Vanuatu joined the WTO after 12 years of reflection on the costs and benefits of its membership. Nepal and Cambodia joined in 2004. A recent trade policy review of Cambodia indicated that its WTO membership has fostered economic growth and contributed to its efforts in combating poverty. WTO members at the trade policy review recognized that Cambodia had made good use of its WTO membership to further integrate into the global economy. Upon the accession of Vanuatu and Samoa, Bhutan will be one of the countries in the most advanced state of accession negotiations, along with Yemen and Laos. Among SAARC countries, only Bhutan and Afghanistan are outside the WTO. These realities may require serious introspection and attention when considering Bhutan's accession to the WTO.

5.3.2.3 Avoidance of trade diversion and a 'spaghetti-bowl' of agreements. It should not be forgotten that the negotiation of a multitude of different bilateral agreements can lead to the entrenchment of inefficient trading relationships and the potential build-up of undesirable vested interests. Participation in the small economies working group would enable Bhutan to communicate its interests proactively. Bhutan could benefit from improved trade facilitation measures. GATS issues are also being treated in a more development-friendly manner and membership of the WTO would ensure that Bhutan benefits from the capacity-building assistance that is built into the GATS, as well as trade facilitation negotiations and potential new agreements.

5.3.2.4 Gaining a voice in international negotiations. Irrespective of the size of member countries, every member country has its own voice and representation as a sovereign and separate entity in the WTO. In addition,

52 *Announced by China during the G-20 Summit in Cannes, France, 2011.*

concerning Aid for Trade and the standards facility, Bhutan would be able to participate in the discussions and decision-making as a full member.

Successful membership would, of course, depend on achieving appropriate conditions with members of the working party, and indeed flexibility can be demanded from developed and developing-country members of the working party, particularly in light of the decision on the accession of LDCs adopted by the WTO General Council on 10 December 2002[53].

5.3.3. Other issues to be considered

5.3.3.1 Less significant benefits due to an economy that is already very open. As in many small developing countries, the fact that the economy is already very open means that WTO accession would be far from a panacea. Access to India is completely open as part of one of the most liberal trade agreements in the world. As an LDC Bhutan already has duty and quota-free access to European and US markets (although this situation will change if Bhutan graduates to developing-country status). Bhutan's trade challenges lie not in market access, but principally in its small size, population dispersal, mountainous topography and distance from major markets, as well as the need for exporters to cross India and Bangladesh to gain access to sea ports.

5.3.3.2. Graduation from LDC status would make WTO accession more rigorous. Disadvantages include shorter transitional arrangements and reduced access to technical assistance and special and differential treatment (LDC graduation is covered in more detail in Annex 1). The primary obstacle to trade development and diversification is not the demand side, but rather deficiencies in the supply side, in addition to logistical and technical barriers.

5.3.3.3 Additional costs may be involved. WTO accession would also come with a number of costs. The first of these is not particularly burdensome. Annual membership fees would be 29,145 Swiss Francs (0.015% of WTO budget) or Nu 1.7 million, as well as the expense of participation in WTO meetings[54]. However, the annual membership fee is insignificant in comparison to the technical assistance and other training opportunities provided by the WTO. Technical assistance will outweigh the membership fee and other associated costs.

More substantive costs may be the limitation of access to linkage-creation measures such as content requirements, export performance and transfer of technology requirements. The principle of national treatment has been criticized precisely because it prevents developing country governments from favouring domestic companies at the expense of foreigners with the intention of learning-by-doing. Active promotion of local firms was a key route to development for many newly-industrialized countries.

53 *Document WT/L/508 recommends that "WTO members shall exercise restraint in seeking concessions and commitments on trade in goods and services from acceding LDCs, taking into account the levels of concessions and commitments undertaken by existing WTO LDC members". It allows acceding LDCs to take advantage of special and differential treatment, streamlines the accession process and improves access to technical assistance and capacity-building.*

54 *The Trade Attaché in the Bhutanese Mission in Geneva will be able to cover WTO meetings.*

5.3.3.4. More rigorous terms for services. Because the WTO pushes for progressive liberalization, it obliges new members to submit to more rigorous terms than existing members. Whilst the goods sector is already very open, services are less so. Bhutan, as a result of its late accession, would probably be requested to open up its services sector more than neighbouring and developed economies, and it might judge this to be inappropriate given its desire to develop services.

Bhutan's services position is shown in the table below. The number of sub-sectors is tentative and could change in the future.

Table 5.6 Services sectors and subsectors open for FDI and under WTO

Sector	Negotiated in WTO (2007)	Remarks
Business service	16	Technical testing & analysis services (WTO) plus 15 services
Communication service	15	Telecommunications & multimodal courier (WTO)
Construction & related engineering services	2	Many areas listed under infrastructure heading (FDI)
Distribution services	2	Wholesale of vehicles plus one other service (WTO) but restricted (FDI)
Educational services	1	All levels of education (FDI)
Environmental services	3	Sewage and waste disposal (WTO); recycling & treatment (FDI)
Financial services	10	Insurance & banking related services (WTO)
Health-related & social services	0	Some services under health open for FDI
Tourism & travel-related services	1	Hotels & restaurants only (WTO)
Recreational, cultural & sporting Services	0	Sports & recreation (FDI)
Transport services	3	All types of transport (FDI)
Other services not included elsewhere	0	Open-ended under 'infrastructure' (FDI)
Sectors and subsectors	**53**	

Source: Department of Industry & Department of Trade

Whilst the table above gives a provisional picture, particular services priorities are likely to include issues such as:

- Horizontal commitments on land so as to accommodate government land ownership and the promotion of special economic zones and industrial estates.
- Horizontal commitments to accommodate Bhutan's strong environmental legislation
- Accommodation of strict rules stipulated in the FDI policy.
- Use of GATS to promote competition in

the telecommunications and IT industry.

- Promotion of local content in audiovisual services (and restrictions on national treatment), given Bhutan's strong cultural heritage.
- Restrictions on national treatment in health, education and environmental services so as to avoid the potential granting of subsidies to foreign providers that are equal to those of state-owned suppliers.
- Restrictions in wholesale and retail trade, in line with the FDI negative list.
- Ending of the TRIPs and public health waiver.

5.3.3.5 An increase in administrative tasks. Bhutan's small government already faces many difficult administrative tasks. A list of legislative changes is usually required in accession, notably in the area of intellectual property legislation. In this regard, consultations with the Intellectual Property Division within the Ministry of Economic Affairs reveal that priorities include capacity-building, the development of an Intellectual Property policy and an inventory of traditional knowledge.

5.3.4. An open and participatory process to complete WTO accession.

The accession process requires full openness and participation. It may be worth using a neutral partner to help facilitate the process of building a national consensus. Problems can result from a lack of national ownership and understanding at the political and the public levels. The opportunity must exist for critics to make their voice heard, whilst politicians must be briefed regularly. Successful accession is likely to be achieved not simply as a technical process between civil servants and international partners; it requires popular participation and active political backing. At least four processes are required:

- Briefing to parliamentarians and awareness-building among civil society, via the media, NGOs and at public meetings. This should involve training tailored to the national context. Experience elsewhere has shown that, once embedded, mistaken public impressions are difficult to change. Civil society and media groups may choose to make their views known at a late stage, so it is important to educate them early and to allow views to be aired.
- Establishing a systematic mechanism for communication between negotiators and the capital, particularly parliamentarians.
- Conducting further consultations, particularly on services, whilst accession is part-completed, in order to establish national ownership. Consultations should be both on a one-to-one basis aimed at determining private views, and on a national basis aimed at establishing a national position. These consultations may be combined with activities mentioned in the first bullet point above. It is important to note, however, that 'consultation' is sometimes taken to mean that all demands can be realized, whilst it is clear that certain interests may be incompatible, such as those of some NGOs and some companies. Strong political leadership will be required for these interests to be reconciled, and in the end some demands may not be accommodated.
- Capacity building of trade officials

and other relevant officials involved in negotiations to facilitate clear understanding of costs and benefits and ensure informed decisions.

5.4. Intellectual Property Rights

The intellectual property policy system is administered by the Intellectual Property Division, under the Ministry of Economic Affairs. Given Bhutan's current suspension of WTO accession, the development of the intellectual property framework remains at a level appropriate to the pace of development so far, although it could be enhanced given the new objectives in the FDI policy and the EDP. Legislation was drafted from 1997 onwards when the office was set up, including the enactment in 2001 of an Industrial Property Act incorporating trademark, patents and industrial designs and a Copyright Act, each of which may be reformed in the future. The registries that are yet to be operationalized are patent and copyright voluntary. Bhutan is member of the Paris Convention for the Protection of Industrial Property, the Bern Convention for the Protection of Literary and Artistic Works, and the Madrid Agreement and its Protocol Concerning the International Registration of Marks and World Intellectual Property Organization (WIPO).

If Bhutan were to join the WTO, it is likely that the existing intellectual property framework would need to be aligned with the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement in a number of areas. Substantial work would be needed in order to bring it in compliance with TRIPS standards, including the following:

- Make amendments to the existing Industrial Property Acts and Copyright Acts (IPRs are administered by respective registries within the IPD).
- Draft manuals, operating procedures, rules and regulations.
- Train a number of officials in TRIPS-related issues (recently-acceding LDCs have been required to train 15 officials).
- Build capacity in the administration and management of intellectual properties.
- Take steps for membership of international treaties on intellectual properties.

This is an ambitious programme for any country, even with the provision of technical assistance, and it is usually required within a relatively short period. Currently, LDCs are provided with a transition period that lasts until 2013, with the possibility of further extension for the implementation of TRIPS provisions other than the provisions on national treatment and most favoured nation treatment[55]. Cape Verde, which acceded in 2007, was granted a transition period matching the current transition period of LDCs with expiry on 1 January 2013 (WTO, 2007, WT/ACC/CPV/30, 246). Vanuatu received only a 1-year transition period, lasting until 1 December 2012 (WTO, 2011, WT/ACC/VUT/27, 122).

The government has also raised concerns about protecting its natural environment, and in particular the need to avoid foreign patents on biological resources and traditional knowledge. "All efforts will be made to protect intellectual property rights such as patents, copyrights and trademarks. This will also cover the protection of indigenous knowledge, expertise and arts and crafts from foreign

55 *WTO Council for TRIPS, Decision of 29 November 2005 (IP/C/40)*

ownership or control"[56]. Whilst Bhutan's tiny agricultural sector is unlikely to attract large market-seeking foreign investors, such caution is understandable when the appropriation of traditional knowledge or the alteration of domestic plant and animal genetic resources for food and agriculture can be irreversible.

The challenge is however not limited to potential misappropriation due to lax IP standards in foreign IP offices. Unlike TRIPS, the Bhutan Industrial Property Act of 2001 does not exclude plants, animals, and their parts, other than microorganisms and plant varieties, from patent protection. It also does not exclude biological and essentially biological process for the reproduction of plants and animals from process patent.

For investment in IPR-sensitive sectors, such as pharmaceuticals and ICT, both the availability and predictability of the scope of protection are important for investors. The Industrial Property Act of 2001 does not explicitly exclude inventions identifying new use of known pharmaceutical products. It also does not allow importation of products protected by patent (Article 13, 4a). However it allows all other acts related to a patented product for experimental purposes. Patent applicants are required to disclose the invention in a manner sufficiently clear for an ordinary person skilled in the art. The disclosure of invention in patent application is a key component of technology transfer after the expiry of the patent or for research purposes during the validity of a patent.

The Copyright Act of 2001, on the other hand, does not provide for the reverse engineering of computer programmes. Innovation in the ICT sector depends on regular de-compilation of software programmes in order to understand the idea behind the software and achieve interoperability with new software. If the law does not specifically provide that ICT companies can actually undertake reverse engineering, most ICT research activities could simply be blocked as copyright infringement[57]. Hence, intellectual property legislation needs to be revised, not only for the purpose of compliance with TRIPS, but also to provide assurances to investors that essential day-to-day operations, such as research, experimentation, and adaptation of technology, do not infringe IPRs.

Intellectual property legislation that is more targeted to address domestic needs (especially small-scale innovation), coupled with technical assistance to set up the necessary administrative infrastructure, would arguably generate incentives for domestic innovative activity. By preparing the ground for domestic growth and development, an appropriate IP

56 *Druk Phuensum Tshogpa 2008, quoted in Bhutan Intellectual Property Division 2009, Overview and Future ahead, p.1. See http:/ www.wipo.int/edocs/ mdocs/aspact/en/wipo_ip_dev_tyo_09/wipo_ wipo_ip_ dev_tyo_09_ref_u_bhutan.pdf.*

57 *The Austrian Copyright Act, 2008 (as consolidated in 2011) provides for software reverse engineering, as in many other countries. As an example, the following articles, under Australia's Copyright Act, do not constitute an infringement of copyright in computer programmes: (1) Reproduction for normal use or study of computer programmes: "The reproduction is incidentally and automatically made as part of the technical process of running a copy of the programme for the purpose of studying the ideas behind the programme and the way in which it functions," and (2) reproducing computer programmes to make interoperable products: "The reproduction or adaptation is made for the purpose of obtaining information necessary to enable the owner or licensee, or a person acting on behalf of the owner or licensee, to make independently another programme (the new programme), or an article, to connect to and be used together with, or otherwise to interoperate with, the original programme or any other programme."*

regime would also carry a number of benefits with regard to foreign investment. The full enforcement of existing intellectual property legislation, while not essential to attracting all types of foreign investment, would help achieve the objectives of the FDI policy. Evidence from other countries shows that the existence of legislation alone is insufficient to reassure investors and that enforcement is critical. If Bhutan is to position itself as an IT hub, it must reassure investors as to the security of their designs, and to that end it would make sense to pass an integrated circuits law. Enforcement of the intellectual property framework would also support domestic innovation.

Given Bhutan's desire to promote 'Brand Bhutan', it is also possible that a geographical indication law could benefit a number of Bhutan's unique emerging agricultural products, some of which are vying for organic and fair trade status. The challenges, however, are significant, and few LDCs have yet managed to achieve major development gains using such a strategy, which would require the legitimate registration of a product unique to a geographic locale as well as a marketing budget and related experience (i.e. a clear marketing strategy) sufficient to establish the product. It would also require production that meets certain quality and other standards on a permanent and reliable basis, in order to create a reputation with consumers and ensure sales on international markets. It is not obvious that either of these ingredients is present in Bhutan at the current juncture, unless the IP policy reflects such an ambition and technical assistance effectively addresses these issues.

Looking at the current situation, appropriate recommendations for Bhutan concerning intellectual property include:

- Establish an intellectual property policy as mandated under section 7.1.12 of the EDP. As yet, the policy on intellectual property does not proceed according to any agreed plan, and is formulated in an ad hoc manner. A basic policy orientation toward intellectual property needs to be established, as well as steps toward the full attainment of the desired framework.
- Assess its IP laws and institutions, the potential implications of implementing TRIPS, and its technical cooperation needs in the light of defined priorities in FDI, technology transfer, domestic innovation and biodiversity[58].
- Capacity-building. Officials expressed a desire for a need-based training in technical matters. Enhancing the technical capabilities of officials within the Intellectual Property Division and other enforcement agencies would improve confidence in the enforcement of laws, with a particular impact on domestic innovation.
- An inventory of traditional knowledge. WIPO has offered assistance, together with the possibility of drafting a biodiversity act.
- Amendment of intellectual property laws. The existing Industrial Property Act and Copyright Act need to be amended taking into consideration national requirements, the promotion of

58 *UNCTAD 2010, Development Dimensions of UNCTAD 2010, Development Dimensions of Intellectual Property in Uganda: Transfer of Technology, Access to Medicines and Textbooks, New York and Geneva. Available at http://www.unctad.org/en/docs/diaepcb200913_en.pdf).*
UNCTAD also undertook a TRIPS impact assessment study for Ethiopia in 2011.

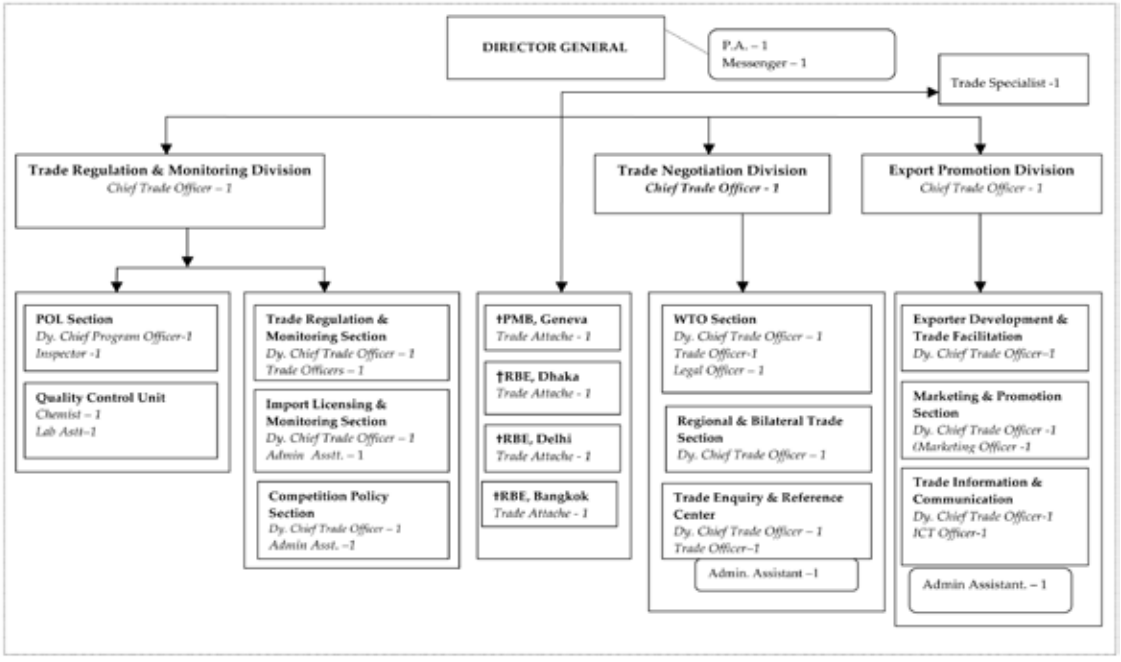
innovation, the protection of traditional knowledge, cultural expressions and biological resources, and emerging issues at the international level in IP-sensitive sectors, such as pharmaceuticals, ICT and biotechnology and attracting R&D-based FDI.

5.5. Institutional development and trade mainstreaming

5.5.1. Institutional assessment

5.5.1.1 Trade. Responsibility for trade policy lies with the Department of Trade (DoT), within the Ministry of Economic Affairs (MoEA). The DoT's mandate is to promote trade, improve the supply of goods, and to enhance national prosperity. Its goals are to achieve an open, liberal and stable trading environment, to enhance exports and to achieve competitive and fair trade.

Diagram 5.1 Structure of the Department of Trade



With staff currently numbering 35, the Department is divided into four divisions and a current National Office of Consumer Protection (mandated under the Consumer Protection Act but not yet in place). The three divisions are as follows: Trade Regulation and Monitoring, Trade Negotiation, and Export Promotion (EPD). These divisions contain a total of 15 sections and units, as shown in the diagram above. The Export Promotion Division (EPD), formed in 2010 with the aim of promoting exports and facilitating trade, was planned to include seven technical staff, although only about half of these positions are

filled. As many as 40 staff positions remain unfilled. Moreover, existing staff at technical level lack expertise and training.

The other Departments of the Ministry of Economic Affairs are those of Industry (dealing with foreign direct investment, industrial and service licensing only), Energy, Geology and Mines, and Cottage & Small Industry. The Divisions of Administration and Finance, Policy and Planning and Intellectual Property operate under the Ministry, and there are six regional trade offices. All of these divisions and departments perform duties with implications for trade.

Other ministries and institutions conducting trade-related activities include:

- The Ministry of Agriculture and Forests, and BAFRA.
- The Bhutan Standards Bureau, which is responsible for issues related to quality and standards.
- The Ministry of Finance (Departments of Public Accounts and of Revenue and Customs).
- The Royal Monetary Authority of Bhutan.
- The Tourism Council of Bhutan (under the Prime Minister's Office).
- The Gross National Happiness Commission.
- Druk Holding and Investments (DHI).
- The Tourism Association of Bhutan.
- The Bhutan Chamber of Commerce and Industry.
- The Private Sector Development Committee.

DHI is a 100% state-owned corporate entity, while the last 3 are private. A number of other institutions perform trade-related functions. Trade-related concerns are coordinated via an inter-ministerial committee formed on an ad hoc basis dictated by events. The WTO Negotiating Team consists of sectoral representatives chaired by the Minister of Economic Affairs. The team also functions as the EIF National Steering Committee.

Whilst the competence of civil service personnel is high, the institutional set-up is complex. Within the Department of Trade, staff are spread thinly, with an average of approximately 1-3 personnel within the 15 units and sections. Given the current zero-growth recruitment policy of the Royal Civil Service Commission, several of the positions look likely to remain unfilled for some time. The existence of seven or more departments and divisions within the MoEA, plus at least nine trade-related ministries and institutions, constitutes a significant coordination challenge.

Despite the relatively high performance of individual departments and units, consultations with a number of civil servants, private sector representatives and non-government organizations reveal that many government trade-related institutions operate separately from each other and that co-ordination could be improved.

Box 5.2 The "silo" mentality

Several interviewees suggested that a 'silo' mentality operates within government. For instance the MoAF plays a key role on SPS matters; yet it does not fully consult the DoT. DHI conducts its own investment promotion activities somewhat autonomously from the Department of Industry.

Source: interviews by the DTIS mission, August 2011

This lack of co-ordination is partly a result of the thin spread of personnel and the high number of units and divisions dealing with trade. Two departments in MoEA, in particular, merit attention: the Department of Industry (DoI), which has an FDI Division, and the Department of Trade with a Division for Export Promotion (DEP).

5.5.1.2 Investment. Currently the FDI and Industrial Development Divisions, located in the Department of Industry, DoI/MoEA, have only three technical staff, who have expressed the need for training. Currently, they have the capacity only to fulfill rudimentary investment-related activities such as basic liaison with investors, the compilation of trade statistics, and attendance at ad hoc trade promotion events. Investment promotion as an activity is limited, as evidenced by the low implementation rate of investment projects during 2011 (although at the time of writing more projects had been approved). Staff expressed the desire for capacity-building activities.

Bhutan currently conducts minimal investment promotion, investor targeting or aftercare. Government officials organize and attend trade missions. For example, in 2010 government officials organized a road show to Singapore, India, New Zealand, Thailand and other countries. Ad hoc links with existing and potential foreign investors exist, particularly through Druk Holding & Investment. However modern investment promotion and targeting involves a variety of known techniques employed on a systematic basis, using information technology and constant liaison based on an in-depth economic analysis of comparative advantages and desired areas of investment. To operate fully functionally, the existing FDI Division would require more staff, training including a graduate trainee programme, and a mandate which follows best practice.

Whilst the government desires to promote FDI within the context of its development philosophy of GHN, the domestic financial sector is highly undeveloped and the pool of available savings very small, while international borrowing is likely to become more costly as the country develops. Bhutan must therefore rely to a large extent on foreign investment – none of which is likely to take the form of portfolio investment for some time yet.

The FDI policy is quite restrictive and may discourage investment and create several unintentional or inoperable incentives. Foreign investors are notoriously wary of PPP-type structures, particularly in young markets with untested legal structures. The current global environment for foreign investment is very liberal, and Bhutan is competing with countries with highly open investment policies. Limitations on the repatriation of funds, for example, tend to deter investors unless very

carefully designed. Moreover the thresholds for minimum investment for infrastructure projects on a PPP model where 100% FDI is allowed are relatively high, at Nu.200 million.

5.5.2. Institutional development

As seen in previous chapters, the mobilization of FDI, although improved, is still insufficient as compared to opportunities. Likewise the increase and diversification of exports remain at a low level. Indeed, further concentration has occurred rather than diversification. This situation calls for an intervention of the administration in liaison with the private sector. The DTIS mission understands that a major restructuring of the MoEA is inappropriate, and it is acknowledged that the FDI and Export Promotion Divisions have only recently been created. However several of the challenges noted above could be tackled through a minimum of institutional improvement. Chile and Uruguay provide examples of how to enhance coordination and mainstreaming, as shown in the Box 5.4.

Box 5.3 Trade policy coordination and mainstreaming: Chile and Uruguay

While **Chile** has no dedicated Trade Ministry, it has developed a dedicated institutional structure. The Comité Interministerial de Negociaciones Economicas Internacionales (Inter-Ministerial Committee for International Economic Negotiations), formed in 1995, has become a key mechanism for trade policy development. It includes the Ministers of Foreign Affairs, Finance, Economy and Agriculture and the Secretary-General of the Presidency, as well as the private sector. The Committee meets monthly.

In **Uruguay**, the Commission Interministerial para Asuntos de Comercio Exterior (CIACEX) aims to integrate trade negotiations, promotion and investment in one system involving government agencies with a trade function: Foreign Affairs, Economy and Finance, Livestock, Agriculture and Fisheries, Industry, Energy and Mining and Tourism and Sport. Whilst CIACEX initially had shortcomings, in 2011 it was revitalized with a new Executive Secretariat with a long-term trade strategy and the mandate of monitoring trade and investment programmes. It aims to finalize the National Export Strategy in 2011.

Source: adapted from UNDP 2011,Trade and Human Development: A practical guide to mainstreaming trade

While inter-ministerial coordination is important, it is not sufficient. As shown in Chile and Uruguay, it is important to give a single overarching authority the mandate to deal with both investment and trade, and to formulate and enact policy. In Bhutan it is proposed that an Economic Development Board (EDB) be established, operating as a statutory body semi-autonomously from government, with the mandate of promoting investment and exports and enhancing Bhutan's ability to benefit from trade. The current juncture would be an appropriate time to create a new institution, as Bhutan's increasing openness to outside investment and trade will create new opportunities and challenges.

The Bhutanese Economic Development Board would perform the following activities: (i) training in trade and investment for all ministries and relevant agencies, (ii) conducting

policy advocacy, (iii) image building and investor targeting and aftercare, (iv) trade promotion using the latest techniques, and (v) reducing bureaucratic barriers to domestic and foreign investment. Notably, the aims of the 2010 FDI policy have not yet been fully realized in practice, partly a result of institutional shortcomings and staff shortages. As an example, FDI statistics collected by the RMA differ from those of the Department of Industry and an urgent task is to compare these figures and iron out anomalies. A dedicated institution, fully staffed, would address these aims.

Technical leadership would come from the existing Departments of Trade and Industry (ideally the divisions of FDI and trade promotion would be replaced, rather than creating a separate institution), as well as from the Ministry of Agriculture and Forests, the Tourism Council of Bhutan; the Royal Monetary Authority of Bhutan and the Private Sector Committee. Private sector representatives could attend meetings of the Board.

The creation of the Board would carry a number of advantages:

- Improved co-ordination and trade mainstreaming through merging a number of institutions.
- Better tackling of existing human resource constraints through pooling resources.
- The establishment of a proactive agenda, facilitated by the nature of the Board, which could systematically pre-empt trade-related concerns rather than waiting for problems to arise.
- Better representation of the interests of exporters and civil society, which by definition would be reflected in the composition of the Board.
- Better formulation and articulation of Bhutan's position for forthcoming bilateral and regional trade negotiations. The EDB would be able to represent the demands of the private sector and civil society, where possible. The Board could also serve as a platform for WTO negotiations, should Bhutan reconsider its accession in the future.
- Opportunities for greater linkage promotion. At Bhutan's current stage of development, and in view of the risks of becoming a resource-rent based economy, linkages should form a central component of development strategy.
- Increased export growth through linking investment and export development. Many countries which have benefited from trade were able to do so by attracting foreign investors with the know-how and contacts for large-scale export. Several countries, such as Singapore, have successfully promoted exports and development using an EDB.

During the validation workshop held in Thimphu on January 12, 2012, the proposal of an Economic Development Board was judged interesting but premature. It could be further investigated once the institutions created last year - the Export Trade Division and FDI Division - have had time to develop, and lessons have been drawn from experience.

5.5.3. Mainstreaming

As acknowledged in an UNCTAD report on trade mainstreaming and the EIF, "mainstreaming is not an ultimate station where a country has ended its journey, but

rather a process that has to evolve"[59]. As part of this evolution, eight key principles remain important, as pointed out in the recent UNDP manual on mainstreaming[60]:

- Building awareness of the contribution of trade to development.
- Communicating trade policies.
- Engaging with stakeholders.
- Enhancing the profile and effectiveness of trade institutions.
- Enhancing the credibility of trade institutions and strategies.
- Setting pragmatic targets, milestones and indicators.
- Using monitoring and evaluation to mainstream trade into development policy and strategy.
- Developing trade-related indicators.

5.5.3.1 Recent examples of success in mainstreaming. According to the above criteria, trade mainstreaming in Bhutan has achieved some success. Recent examples include the following:

- The UNDP manual on trade mainstreaming cites Bhutan as an example of best practice in aid coordination, pointing out that trade development is integrated into the government's 10th Five-Year Plan, that the private sector is involved in trade decision-making and that trade-related technical assistance is well managed[61].
- Formulation of the Economic Development Plan (EDP) and FDI policy involved most key stakeholders. Consultations showed that all key government agencies were consulted and mostly remain familiar with the EDP and FDI policy, including Customs, the Royal Monetary Authority, the MoAF, the GNH Commission, the Ministry of Finance and other key institutions.
- The EDP itself makes trade central to development, with specific incentives devoted to raising the contribution of trade. Section 7.4 includes the drafting and implementation of a Trade Development Act (a draft now exists), and section 9.3.7.1 concerns the launch of a feasibility study on a tax free zone.
- The GNH commission appears aware of the importance of trade for development and the Centre for Bhutan Studies has a long-standing and strong reputation in policy research.
- The proposed establishment of the Education and IT Parks is part of an explicit trade-related vision, in that the government is prioritizing the development of high-end services trade and that it recognizes the importance of education for trade.
- A competition policy is in the process of being finalized by the DoT, with assistance from UNCTAD. An Enterprise Act is also under preparation. The Trade Development Act is a particularly promising initiative although it has not yet been passed. The drafting of three

59 *UNCTAD 2009, Developing a Trade Policy Framework to Mainstream Trade into National Development Plans: Practical Steps under the Enhanced Integrated Framework, p. 2*

60 *UNDP 2011, Trade and Human Development: A Practical Guide to Mainstreaming Trade*

61 *UNDP, ibid, p. 40*

important pieces of legislation as well as the Trade Development Act will help mainstream trade by giving the DoT legislative influence.

5.5.3.2 Improvements needed for trade mainstreaming. Bhutan could improve in a number of areas, including the following:

- Better integrate trade issues throughout the EDP document. Although trade features in the document, several sectors, such as tourism and agriculture, are discussed in isolation from trade.

- Reduce the gap between goals and existing practice. As noted in the previous section, Bhutan's export composition, measured in aggregate, is currently that of a low-level industrial manufacturer, taking advantage of its comparative advantage in electricity generation, with a medium-sized tourism sector and a smaller agricultural sector. High-end services trade outside the tourism sector is still a distant prospect, and intermediate steps aimed at achieving this goal via trade are not outlined in sufficient detail in the EDP or other planning documents.

- Address shortcomings in coordination. Those noted above are a result of the complex institutional environment and hinder the mainstreaming of trade. Staff numbers in each division are often insufficient to perform a fully functional role.

- Aim to make trade mainstreaming more proactive. At present, the ad hoc nature of inter-ministerial co-operation results in being somewhat reactive rather than proactive.

- Improve the communication of trade policy.

5.5.3.3 Recommendations

The following actions are recommended:

- Entrust responsibility for the EIF process to a dedicated team of officials in order to maximize benefits. Several EIF countries with weaker human resource capacities have even recruited an international technical assistant to help with the process. Whilst this is not necessary in Bhutan, it would be appropriate to give at least one senior trade official the responsibility of the following tasks: (i) managing the IF process in support of the Director General of Trade and EIF-NIU members, (ii) coordinating inter-ministerial work on trade policy, and (iii) project proposal-writing and project management. These tasks, and even the senior trade official's remuneration, could be funded from the EIF Tier 1 if desired. It would also be useful to conduct a round table aimed at establishing donor commitments on the DTIS. In the longer term there should be a biannual review of donor activities aimed at ensuring maximum coordination among donors.

- Assign a leadership role to the DoT in the preparation of the 11th FYP, which will offer a major opportunity for mainstreaming trade into development policies. It is essential that the DoT should participate in different working groups and advocate a more active stance

for trade and investments. One entry point could be the promotion of linkages between policies, especially those aiming at the objective of transformation of the economy and diversification of exports. Most successful experiences in other countries have been the result, in part, of learning via diversification of the domestic economy instead of relying exclusively on technology or capital imported from abroad. Given Bhutan's FDI policy, and the lack of domestic savings available for conversion into domestic investment, it will be doubly important to develop linkages, both among domestic companies and between foreign companies and smaller local companies.

- Develop a national programme to promote and support linkages among enterprises. Linkages should also include backward linkages with suppliers, linkages with technology partners, forward linkages with customers and other spillover effects. Linkages are often lacking because local firms cannot meet international production standards, as well as corporate requirements in terms of consistency/continuity and volume of production. Government and the private sector can work together to establish one-stop centres where entrepreneurs have access to business development services and inputs (i.e. entrepreneurship training, information, finance, quality control, networking and business counselling).

- Upgrade local supplier programmes in technology and skills in order to help stimulate linkages between local firms and TNCs. Under these programmes some local firms have subsequently developed into exporters themselves.

- Continue using incentive schemes in the EDP to encourage firms to collaborate with other stakeholders in enhancing the level of skills, technology and infrastructure in the host country. Bhutan has rightly been using these incentives. However it may be worth simplifying them in order to reduce anomalies and make the scheme easier for foreign and domestic investors to understand. In the past, host governments have used direct measures such as local content, export performance and transfer of technology requirements. Unlike many countries, Bhutan can use these measures as it is not a member of the WTO, under which they are curtailed.

- Continue to prioritize health and education partnerships via the IT and health parks as the government has been doing, although as noted above, FDI institutional functioning and policy could be improved. If, unlike some high-saving Asian countries like China or Japan, access to domestic savings or low-cost borrowing is not possible, then the only option is private partnerships with foreign companies. In this context, linkage-promotion policies could be an important tool.

Table 5.7 Specific measures by governments (of host and home countries) to promote linkages

Technology upgrading	Training
• Partnership with foreign affiliates. • Incentives for R&D cooperation. • Home country incentives. • Promote suppliers' associations.	• Collaborate with private sector on one-stop service. • Support private sector training programmes. • Collaborate with international agencies.
Information and matchmaking	**Financial assistance**

• Provide relevant information.
• Maintain updated electronic databases.
• Act as honest broker in negotiations.
• Support suppliers' audits.
• Provide advice on subcontracting.
• Sponsor fairs, exhibitions and, conferences.
• Organize meetings and visits to plants.
	• Legal protection against unfair contractual arrangements and other unfair business practices.
	• Guarantee recovery of delayed payments.
	• Indirect financing to suppliers through their buyers.
	• Tax credits and other fiscal benefits to firms providing long-term funds to suppliers.
	• Co-finance development programmes with private sector.
	• Directly provide finance to local firms.
	• Home country measures:
	  • Two-step loans
	  • Using official development assistance

Source: UNCTAD 2001,World Investment Report 2001: Promoting Linkages, Table VI.1, p. 210

In this respect, the pro-active policies followed by Thailand provide an interesting model, as seen in Box 5.4 below:

Box 5.4 The Board of Investment's Unit for Industrial Linkage Development (BUILD) in Thailand

BUILD has been established to provide a wider range of investment-related services. BUILD functions as a "middleman" to forge links between customers and suppliers. The objectives of the programme are to use technology transfer to reduce the import of parts and components, linking Thai suppliers with large companies and strengthening part makers in Thailand. BUILD promotes industrial linkages and stimulates domestic subcontracting of parts and components. The unit analyzes parts and components needed by both Thai and foreign assemblers planning to start production in Thailand. BUILD then surveys existing supplier industries in order to identify companies that are capable of producing competitively. The programme also collaborates with other government agencies and private firms to help these potential suppliers to upgrade.

BUILD consists of several programmes, e.g. the **Vendors Meet Customers Programme,** which was established to promote industrial linkages and stimulate domestic subcontracting of parts and components. Visits of manufacturers to factories are organized under this programme; the main role of the monthly **Parts & Components Marketplace** is to match customers and suppliers. Every month, BUILD invites 10-20 large companies and 200-300 potential qualified suppliers from a computerized database of supporting industries that includes about 800 companies believed to be capable of producing parts for parent firms. The marketplace consists of a morning seminar on different issues, e.g. increasing efficiency, a presentation by the potential customers on their supply demands, an exhibition of the parts needed, open discussions and opportunities for informal meetings. **Subcontracting Seminars** provide SMEs with information on how to overcome difficulties in supplying large companies. The **ASEAN Supporting Industry Database** includes all important industries in the fields of mould-and-die, electronics, automotive, and chemistry in Asia and aims at facilitating matching in the ASEAN region.

Source: UNCTAD 2009, Developing a Trade Policy Framework to Mainstream Trade into National Development Plans: Practical Steps under the Enhanced Integrated Framework

6 TRADE FACILITATION, TRANSPORT AND LOGISTICS

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CHAPTER 6. TRADE FACILITATION, TRANSPORT AND LOGISTICS

Introduction

The development strategy of Bhutan is based on strengthening exports - goods and services - and fostering private sector development as pillars of the country's economic growth. Marked improvements in transport infrastructure, performing logistics services and an efficient administration of cross-border trade are critical enablers for this growth agenda.

Bhutan needs to increase its trade efficiency to enhance export competitiveness and market opportunities for SMEs. The latter face relatively high transaction costs, mainly due to high transport costs and the dependency on transit for access to a seaport. The World Bank Doing Business survey 2012 ranked Bhutan 168th out of 183 economies in the category of trading across borders[62]. Only Nepal and Afghanistan are ranked lower than Bhutan in the South Asian region.

In this chapter, issues related to performance and improvement in customs and border management will be examined, followed by a review of transport infrastructures and the RGoB's on-going and planned investments. Finally, an analysis of regional transport connections and the efficiency of trade corridors and logistics services will point at possible improvements.

6.1. Trade regulations and customs

6.1.1. Legal framework and transparency.

Bhutan's regulatory framework for cross-border trade of merchandise goods is relatively complex. In the absence of a comprehensive set of import and export regulations, the current legal framework consists of pieces of subsidiary legislation, such as notifications and regulations issued by various agencies[63]. This creates an overlapping and complex legal context. It lacks central control and creates legal uncertainty.

Cross-border trade transactions fall into two categories: trade with India and trade with third countries other than India. Third country imports are regulated by the *Rules and Procedures for Imports from Third Countries* (2002) issued by the Department of Trade, Ministry of Economic Affairs. A different legal framework applies to bilateral trade with India according to the provisions of the bilateral trade agreement and its protocol. Bhutan is also a member of two regional cooperation groupings: SAARC and BIMSTEC. As both groupings seek to strengthen economic and trade cooperation, improvements in these areas might imply changes in terms of customs duties, rules of origin and documentation requirements.

The *Sales Tax, Customs and Excise Act* (2000) and its rules apply to all goods, independent of their origin. Pursuant to this act, all goods - other than goods from India - entering Bhutan are subject to the payment of the sales tax (BST) with rates from 0%, 5%, 10%, 15%, 20%, 30%, 50% and 100%, and customs duty. The excise

62 *World Bank 2011, Doing Business 2012*

63 *A Trade Development Act and subsequent import and export regulations have been developed but have not yet been adopted by the legislative.*

duty of 20 percent to 60 percent is currently only levied on domestically manufactured alcoholic beverages.

The customs legislation, which dates back to 2000, does not comply with most modern international customs practices as outlined in the 2005 Revised Kyoto Convention (RKC). Bhutan is a member of the World Customs Organization (WCO) but has not signed the RKC. It is however signatory to the Harmonized System Convention and applies the HS code for the classification of goods in the 8-digit Bhutan Trade Classification (BTC). Although Bhutan is not a member of the WTO, the valuation practices are officially aligned with the WTO Valuation Agreement, and valuation is mostly based on the transaction value.

6.1.2. Trade restrictions

Bhutan maintains several trade restrictions, mostly affecting imports. These restrictions are on goods as well as on import channels. With regard to the import channel, Bhutan maintains a non-automatic import license system for imports by road from third countries[64]. Only registered retailers can import from third countries for commercial trade. Other entities, such as the manufacturing and service industry, have to obtain special authorization by a relevant government agency for any import of third country goods. Imports from India are not subject to the license requirements, but the import of commercial goods is limited to registered wholesalers, who can trade in a maximum of products from 30 suppliers. The importation and exportation of petroleum, oil, lubricants, wireless remote and sensing telecommunications and broadcasting equipment, and alcohol and alcoholic beverages remains restricted to a few companies.

In addition to the import license, commercial traders of third country imports need to have a general import authorization that requires an inscription in a register, the so-called "import house" registration. The registration is maintained by the Department of Trade of the MoEA. The same department also issues the import licenses.

The main objective of the license as it is practiced in Bhutan seems to be the control of foreign exchange. Bhutanese traders require an import license to obtain foreign exchange (Forex) from the commercial banks. In 2005, the government limited the volume of imports from third countries for commercial purposes to one twenty-foot equivalent unit (TEU) in 3 months. If a trader wishes to obtain a license for more frequent importation, the importer needs to prove sufficient foreign exchange earnings and obtain a letter from the Bhutanese central bank authorizing the transaction.

With respect to restrictions on goods, Bhutan has no quotas in place on manufacturing or agriculture products, but there are prohibitions and restrictions on the grounds of security or health and for moral or cultural reasons. A list of prohibited and restricted goods can be found both in the *Sales Tax, Customs and Excise Act* (2000) and in the *Rules and Procedures for Imports from Third Countries* (2002). Further to this list, trading in sensitive commodities, such as timber, have either been banned or restricted by various legislations. The commercial importation of tobacco and tobacco products

64 *No license for export is required and imports from third countries by air are not subject to this obligation.*

was also banned in 2010[65].

Other goods are restricted and their import and export is subject to prior approval from relevant governmental agencies. The following governmental agencies issue such clearance for the following goods:

- Ministry of Agriculture and Forests: chemicals and fertilizers.
- Ministry of Agriculture and Forests/ BAFRA: live animals and their products, plants and plant materials.
- Royal Bhutan Army: arms and ammunition.
- Ministry of Home Affairs: explosives and explosive devices.
- Ministry of Health: drugs and pharmaceutical products.
- National Environment Commission (NEC): industrial and toxic waste and residues, and scraps.
- Royal Monetary Authority of Bhutan: gold and silver in excess of free allowance.
- Bhutan InfoCom & Media Authority (BICMA): wireless and remote-sensing telecommunication and broadcasting equipment.
- MoEA: used or second-hand goods, machinery, plastic packing materials, goods for which there is no market within the country.

Taking all these measures together, the current trade environment for imports is a rather restrictive one. Licenses, registration and prior authorization add procedures and formalities and hence increase time and cost for traders. An import license has to be obtained from the Department of Trade in Thimphu. The required documents have to be submitted in original: they include a valid retail license, registration as import house for commercial traders, and prior authorization from the relevant government agency for restrictive goods. Raw materials and capital equipment can only be imported with the approval of relevant Departments DoI/DCSI. The license procedure is therefore particularly cumbersome for the manufacturing business and the service industry.

According to official sources, the license procedure takes one to two days and the registration as import house less than one day. However, the Enterprise Survey of the World Bank/IFC measured 10.50 days as the time necessary to obtain an import license in 2009[66]. Although this time frame is below the regional standard of 13.7 days, the procedure takes longer than in the neighbouring countries of Bangladesh and Nepal[67]. Private sector representatives consider the current import license practice as a burden on their business, not so much because of the license fee itself as because of the formalities and time involved. The Enterprise Survey shows that import license formalities particularly impact medium size companies[68]. Automating the license procedure and import house registration as provided for in the G2C project may well shorten the time necessary for the formalities. It will not however result in major simplification, as the licenses and authorizations themselves

65 *2010 Tobacco Control Act*

66 *The enterprise survey looked at manufacturing companies only. Therefore the procedure to obtain an import license includes the additional step of obtaining prior authorization.*

67 *No data on India is available in the survey.*

68 *The country average is 10.50 days. For small companies it is 9.09, for medium size companies 14, and for large companies 7.96 days.*

will be maintained.

6.1.3. Border Agencies.

Customs is not the only agency involved in the control of goods for import and export. Other agencies, with controls related to health, sanitary measures, standards, veterinary inspection, and transport intervene as well, either directly at the border stations or at inland locations. There are currently 11 such agencies involved in the clearance of goods for entry or exit. These are referred to as border agencies. The table below lists all relevant border agencies, their role, tasks and legal framework.

Table 6.1 List of border agencies and related legal framework

Agency	Role / Tasks	Regulatory framework
1. Department of Revenue & Customs Ministry of Finance. Regional Offices, HQ	**Role**: Collect revenue. Facilitate legitimate trade; enforce trade policy. Controls conformity with IP rights and IP laws International conventions **Tasks**: Clear goods for import/ export. Collect taxes, customs duties, excise, and sales tax. Issue Excise import and export permit (regional offices)	Sales Tax & Customs and Excise Act and rules (2000)
2. BAFRA	**Role**: Ensure the quality and safety of goods and products related the MoAF. **Tasks**: Issue Phyto-Sanitary certificate for exports of agricultural goods. For any import or export of agricultural goods and food, necessary permit has to be obtained from BAFRA head office prior to import or exportation.	The plant quarantine act, Bhutan, 1993 Food regulations, 2007 Food Act, 2005 The Livestock Act of Bhutan, 2001
3. Ministry of Agriculture and Forests (MoAF)	**Role**: Responsibility over chemicals, fertilizers, pesticides. To ensure that only appropriate types and quality of pesticides are introduced. **Tasks:** Approve importation of pesticides.	Pesticides Act, 2000
4. National Environment Commission	**Role**: Responsibility over industrial waste and toxic residue. Ensure protection of human health and environment against toxic, hazardous and chemical substances. **Tasks**: Approve importation of chemical substances.	"

5. Ministry of Economic Affairs (MoEA)	**Role:** Regulate internal and external trade and regulates the industry with the aim to develop industrial production and competitiveness **Tasks:** Register companies as import houses and issues import license. Issue import permit for restricted products under their authority. Issue the radiation certificate and the "health certificate for food" for exports to third countries (Regional office in Phuentsholing) Certify arrival of goods at destination with the "landing certificate" (Regional offices)	.
6. Bhutan Narcotics control agency / Drug Regulatory Authority / Ministry of Health	**Role:** Control and prevention of Narcotic Drugs and Psychotropic Substances **Tasks**: Issue import and export permit for drugs and medical substances.	Narcotic Drugs and Psychotropic Substances and Substance Abuse Act, 2005. Medicines Act, 2003
7. Department of Forests Ministry of Agriculture and Forests	**Role:** Ensure projection and sustainable use of forestry, wildlife and related natural resources. **Tasks**: Regulate the transport, import and export of forestry products. Issue "Movement Order for finished wood product for export", "Movement Order for timber", on special approval of the Ministry, and "Imported timber Movement Order".	Forest and nature conservation act, 1995 Forest and nature conservation rules, 2006
8. Immigration Department Royal Bhutan Police Ministry of Home and Cultural Affairs 9. Royal Bhutan Army Border patrol Unit	**Role:** Enforce law and order; provide immigration services **Tasks**: Control immigration; Regulate import and export of explosives Coordinate meetings with Indian neighbouring states **Role**: Civil law enforcement; Guarding of infrastructure **Task**: Conduct border patrol Issue permits for importation of arms and ammunitions.	Immigration act, 2007 Police Bhutan Act 2009 Explosive Act 1992 Fixed arms and ammunition act, 1990 Army Act 1979

10. RSTA / Ministry of Information and Communication.	**Role**: Provide and develop safe, reliable, efficient, cost effective and environment friendly transport services in support of strategies for socio-economic development of the country. **Tasks**: Supervise regulations applicable to road traffic (driver license, roadworthiness of truck, truck loads, truck permits for Indian trucks) Issue service license for trucks that entails them to transport goods in Bhutan, west Bengal and Assam. Issue permits for Indian trucks in Bhutan beyond Phuentsholing (normal and project equipment)	Road Safety and Transportation Act, 1999
11. BICMA / Ministry of Information and Communication	**Role:** To create a conducive regulatory environment to promote a competitive and vibrant information, communications and media sector. **Tasks**: Issue permits for imports of wireless and remote sensing telecommunication and broadcasting equipment.	Telecom Act, 1999 Bhutan Information, Communications and Media Act, 2006

Not all of these agencies are present at the border crossings and stations. Only Customs, BAFRA, the Forestry Department, and the Police (Ministry of Home Affairs) and Border protection and immigration agencies have officers stationed at the border crossings.

6.1.4. Border crossings and border stations.

All goods entering and leaving Bhutan have to be presented to Bhutan Customs. Goods can enter and leave Bhutan through any of the 16 designated border stations. All but the border station at the international airport Paro are land border stations located at the geographical borders of Bhutan[69].

The border station at the Phuentsholing gate in the town of Phuentsholing has the highest traffic flow. The freight traffic crossing this gate accounts for 73 percent of annual exports and 83 percent of annual imports (by value in Nu). This includes bulk and general cargo from India and containerized cargo from third countries through Kolkata. The other border stations are less frequented and traffic there is often concentrated in some product groups and may be seasonal. In the southern regions, Gelephu accounts for 1 percent exports and 4 percent imports, while Samdrup Jongkhar accounts for 9 percent exports and 7 percent imports70. Exports include fruits and vegetables from the centre of the country that

69 *A border crossing is any point along the borderline where a country can be physically entered; usually a border crossing is a specially established road. A border station is an official point of entry into a country, where its national sovereignty is officially and administratively established and where traffic is controlled to ensure compliance with its laws.*

70 *Figures on the number of trucks were not available for these border stations.*

are exported seasonally as well as cement. Cement is also the main export commodity in the region of Samtse (13 percent exports, 3 percent imports). Only 4 percent of exports and 2 percent of imports are transported by air through the airport in Paro. The map below shows the traffic flow at border stations.

Map 6.1 Traffic flow at border stations (exports/imports by value aggregated by region

Source: Bhutan Trade Statistics, 2010

Bhutan customs also operates a liaison office and transit office (LOT) in Kolkata, India, pursuant to the bilateral trade agreement. Twelve customs officers are posted there to prepare the transit formalities and facilitate clearance for goods imported from third countries transiting through India.

The existing border stations and their infrastructure, specifically in Phuentsholing, can barely cope with the current traffic volume. It therefore becomes pivotal to open new border crossings. This is particular important for the southern region of Gelephu, Samdrup Jongkhar and Samtse, where the Government plans new industrial zones and estates. In 2008 a border station in the Nganglam was re-opened to business, after its closure in 1998, to accommodate the export of cement from the eastern part of the country. Negotiations with India on the border crossings are on-going. Key problems are the issue of access roads, volume of trade and land expropriation on the India side. Negotiations on a second border gate in Phuentsholing, for example, are delayed because of land issues related to the planned bypass road on the Indian side. Discussions have also been ongoing for the past years on opening another border crossing closer to the Paskaha Industrial Estate and thus bypassing the town of Phuentsholing. These negotiations should have high priority and be part of a strategy to develop effective transit corridors.

6.1.4.1: Customs clearing procedures and formalities. The *Sales Tax, Customs and Excise Act* lists four customs procedures: import, export, re-import and temporary importation.

Most of Bhutan's customs legislation and practices are not aligned with modern practices such as those outlined in the RKC. Risk management is not used systematically. There is no database supporting risk management and the collection of information on risks. This leads to a high percentage of cargo traffic being inspected physically (100 percent for third-country cargo traffic, although with a more or less degree of intrusiveness) and delays in the clearance process. The possibility of allowing clearance for import and export on traders' premises should also be considered, as this would reduce the traffic pressure at the border stations. The introduction of outward or inward processing procedures and temporary importation have the potential to strengthen the development of industrial zones and promote export processing.

When all the documents are in order, the time spent for border crossing is minimal in Bhutan. Indicative time for customs clearance is about one day for goods from third countries with no intrusive inspection, about two days with intrusive inspection, and 1-4 hours for goods from India.

All goods need to be cleared by a registered customs clearing agent. There are more than 45 registered customs clearing agents in Phuentsholing, involved in the clearance of goods from India as well as from other countries. Most of these clearing agents are based in Phuentsholing.

Box 6.1 Customs clearance formalities for imports from third countries in Phuentsholing

On arrival in Phuentsholing, consignments are moved to the third-country clearing area. The clearing agent collects the documents from the transporter and lodges the declaration and one set of supporting documents with the regional Customs office in Phuentsholing. At this stage the declaration is often only hand filled. A customs officer selects the consignments for inspection, assigns a suitable inspector for the physical control and marks the name on the declaration. The clearing agent carries the documents to the clearing area where the inspection takes place. After the physical check is completed, the inspection office returns the declaration to the agent with appropriate remarks. The agent then submits the documents to the assessing officer of the regional Customs office. At this stage the information is registered with BACS by the officer; the declaration is assessed, and duties and fees calculated and paid. After payment, the declaration form is signed for release. The agent returns to the clearing area to hand over the documents to the importer or driver, and goods are allowed to exit customs for delivery. When the goods arrive at their inland destination, the regional office, the MoEA issues a landing certificate to certify the arrival of the goods in Bhutan.

The number of required documents is at least 6 and can be up to 11 for imports and at least 5 and up to 8 for exports[71].

71 *The account of export documentation requirements refers to trade with third countries. Document requirements for exports to India are reduced and*

Table 6.2 Document requirements for import and export

Import	Export
Import Declaration	Export Declaration
Customs copy of Import License (where applicable)	Commercial invoice
Special permits for restricted goods (where applicable)	Packing list
Bill of Lading / Airway Bill / duly endorsed by the importer	Certificate of origin
Invoice (where applicable, attested by the bank through which payment is made)	Insurance documents (where applicable)
Packing List	Shipping bill (where applicable)
Certificate of Origin	Business license
Marine / Air / Transit insurance policy (where applicable)	Authorization letter for the clearing agent from the consignee
Documents related to Sales Tax exemption or Excise exemption (where applicable)	
Authorization letter for the clearing agent from the consignee	

Source: Mission compilation from various legal acts and traders' manual (MoEA)

include the export declaration accompanied by the invoice only

An additional document, the so-called "landing certificate", is not required per se for the clearance process at the border station. It is issued by the regional offices of the MoEA to attest that the imported goods have arrived at destination and constitutes the last step of the import procedure for third-country goods.

These documents are regulatory and commercial documents. Their number is fairly usual. However as mentioned earlier, formalities involved in obtaining some of the regulatory documents, such as the import license, can be particularly heavy. Documents thus become a trade barrier more for the time involved in getting them, than for the time involved in processing them.

The regulatory documents are not in conformity with international standards such as the UN Layout Key and the United Nations Trade Data Elements Directory (UNTDED). Data elements on the forms are not coded and do not use international codes. All the documents have to be submitted in hard copy. The only document

that is used and forwarded in electronic format is the L/T – the transit document issued by Bhutan Customs office in Kolkata. It is sent by email to the customs office of entry to inform of the arrival of the goods.

Customs charges service fees of ad valorem 0.25 percent for the processing of the documents, and 1 percent for the transit clearance in Kolkata by the Liaison Office for Transit (LOT). Other fees, such as overtime charges, are calculated on the basis of service rendered and are Nu 60-120 per hour plus 50 Nu fixed charge.

6.1.4.2 Customs transit procedure[72]. Bhutan's trade with third countries is steadily growing in volume and value. As a landlocked country, Bhutan is dependent on transit through India to access third country markets. Transit consignments thus have to cross at least two borders. The efficiency of a transit operation and supply chains that rely on transit is closely linked to the efficiency of the customs transit procedures in the transit country or countries. India grants freedom of transit for products from or to Bhutan from third countries as part of the bilateral trade agreement. A transit customs procedure that exempts transit consignments from customs duties and other trade restrictions has been set up[73]. Transit goods are not subject to inspection and other controls in the port of Kolkata. Until 2006 no guarantee was required[74]. The Bhutan Government remains legally responsible for the transit operation. The LOT was set up in the port of Kolkata to seal containers, to initiate the transit procedure on the trader's behalf, and to assist traders, upon their request, with the Indian customs formalities. Bhutan customs uses the "shipping challan" or L/T, issued by the LOT, to monitor the transit movement. A paper copy accompanies the consignment and is stamped by the Indian customs at the point of exit. An electronic version is also sent to the customs office of clearance.

On the Indian side, the transit procedure is similar to clearance for home consumption. A bill of entry has to be lodged for transit consignments and a document check is undertaken by Indian customs. This lengthy procedure causes delays and additional formalities and should be reduced. The current transit procedure thus requires two formalities and two sets of documents; one with the LOT and the other one with Indian customs. It furthermore involves using a customs broker in Kolkata or paying the service fees of the LOT if they undertake the processing on the trader's behalf. These fees are 1% ad valorem. The initiation of the transit in the port of Kolkata takes at least two days if all documents are in order. Hence, the transit procedure should be simplified to facilitate transit.

The two governments adopted a simplified transit procedure in 2006, but its full implementation is still pending. The only element of the new procedure that is already applied is the guarantee system for goods in transit. The Bhutan Government acts as

72 *This chapter does not describe the transit procedure that is in place for goods transiting India on the journey from a point in Bhutan to another point in Bhutan. This transit traffic occurs frequently in the southern region due to bad road conditions on the Bhutanese side.*

73 *Article V of the Agreement on Trade, Commerce and Transit between the Royal Government of Bhutan and the Government of the Republic of India.*

74 *A guarantee is requested to cover the loss of customs duties and other taxes if the goods in transit are leaked into the market. A guarantee can be provided in different forms, such as cash deposits, a bond by a bank or third party insurance.*

guarantor and issues a letter of guarantee for the goods in transit. When the new transit procedure is implemented, it will lift the current clearance procedure. The letter of guarantee and the commercial documents accompanying the consignment would then be sufficient for the transit procedure. Although the procedures were agreed upon five years ago, a joint work programme for its implementation is currently missing.

Since Bhutan does not have a liaison office in Bangladesh or Nepal, traders have to accomplish the formalities for the transit on their own. The procedures are different and not regulated in a bilateral agreement. Bhutan customs issues a letter of guarantee for imports from Bangladesh. It also prepares a letter to the superintendent of customs of Bangladesh requesting him to duly comply with the necessary formalities for Bhutan's import from Bangladesh. With regard to imports from Nepal, India issues a customs transit declaration and requests a guarantee to be provided. Goods from Bangladesh and Nepal are not containerized and are carried in open trucks. They are therefore subject to controls at every customs checkpoint on route, and may be escorted up to Bhutan customs if the goods are sensitive.

6.1.5 Border management

The border infrastructure in Phuentsholing is under heavy pressure. Each day 300-400 trucks come in from India, including 5 or 6 container trucks from third countries which in peak moments can increase to 15 or 16 per day. Space limitations make it currently impossible to allow a better traffic flow and more effective design of the clearing areas, with adequate equipment and parking spaces. The clearance process for third countries is fragmented into two processes: the document processing undertaken at the customs offices, and the inspection process undertaken at the inspection area. There is no telecommunications and data connection between these two locations and traders complain that they frequently have to pay overtime hours to finish the clearance process once the inspection is terminated. The second border gate in Phuentsholing, and the distribution and warehouse centre with clearance facilities soon to be built, will ease some of the pressure. The completion of these projects should therefore be a priority for the Government.

The border area also lacks parking spaces, and trucks queue up in the urban centre of the town. The clearing areas for goods are very small and their infrastructure, in particular the third country area, is more than basic. The inspection area for third country imports has been given to customs on a temporary basis. Little investment has been made into it to turn it into an adequate clearance area. There is no loading equipment available, no electricity, and no clearly designated parking area. In addition, there is very limited covered space, the surface is full of potholes, and there are long lines of waiting trucks. All containers from third countries are unloaded in this area, broken down, and the consignments loaded onto Bhutanese trucks. As Customs inspects all containers at the same time of the unloading, the process can take four hours and only 5 containers can thus be unloaded per day.

For more than 20 years, the Government has been looking into the possibility of setting up a dry port in the urban area of Phuentsholing or close to Pasakha.

Box 6.2 Dry Port initiative

A Dry Port is an inland terminal used for the storage and transshipment of containers or conventional bulk cargo and is usually connected to a seaport by rail or road. The government policy initiative to establish a dry port should enable import and export costs to be cut down and also reduce customs tax administration. Documents, formalities and other logistical arrangements concerning import and export cargoes can be completed at the dry port. The dry port facility will also provide cold storage facilities such as reefer containers. These would enable highly perishable products to find international markets in which higher prices can be negotiated, instead of ending up in a few neighbouring countries where there is little bargaining power. The warehouse facility at the dry port will also provide consolidation and packaging services.

The need for such a dry port has grown since the initiative was first proposed and the Government is well decided to go ahead with this project. The future "dry port" will be managed in a Build, Own and Transfer (BOT) concession.

6.1.5.1 Agencies' cooperation. The different border agencies collaborate at the working level only and the collaboration is limited to specific tasks. There is no integrated clearance workflow and no sharing of data or information. Although working relationships are good, the absence of collaboration and sharing of information adds in time and burden to traders as well as to customs since the agencies have to be informed of the arrival of consignments of their interest and documentary information needs to be verified over the phone. The agencies do not undertake joint inspections and do not share documents, data or inspection results.

There is also no cross-border cooperation between Bhutanese and Indian customs. Working hours of the customs stations in Phuentsholing and Jaigaon are not aligned. Annual meetings take place at the level of the commissioner of customs, but there is no framework for cooperation at the border station level. The creation of such a framework could be envisaged in the context of developing a trade and transit corridor strategy. In 2010, SAARC members signed an agreement concerning mutual administrative assistance in customs matters. The agreement will provide the legal basis for a cross-border exchange of information in the future amongst SAARC customs administrations.

6.1.5.2 Use of Information and Communication Technology. The Bhutan Automated Custom System (BACS) currently used by the Department of Revenue and Customs (DRC) was developed in 2002 to provide trade statistics and process declarations. All regional DRC offices and customs border stations are equipped with BACS software and have the necessary IT equipment. BACS is a client server system running on Windows 2000. It is used for the clearance process, but it only allows for semi-automated clearance and does not provide real time linkages between the regional offices and Headquarters. It is furthermore reported to be slow and unstable and updates cannot be made easily, making additional manual processing necessary. It is also not clear how the system will be able to exchange data

and integrate with new IT developments in the revenue department and in other agencies, as well as with the G2C project. An assessment of the limitations of the system and the need for upgrading or replacing it is therefore an urgent priority for the DRC.

The Asian Development Bank project for the upgrading of the revenue system will start in January 2012 and the G2C project is developing a platform for the automation of the various licenses in place. It is important to ensure that the new system remains interoperable by using the same data model and standards for electronic messages. Another limitation of the BACS is that there is currently no training programme for the IT department of the DRC, and staff has to go outside Bhutan for training.

6.1.5.3 Compliance and Enforcement. Bhutan customs procedures are not considered to be a major barrier to investment and the business climate in general. Only 3.3 percent of manufacturing businesses view it as a major constraint[75]. This is far less than in other countries. Customs procedures rank far below other factors such as transport costs and labour regulations.

Bhutan customs could however do more to facilitate trade and to reward compliant traders. Customs duties contribute only 2 percent to the national budget[76]. This low figure should encourage the DRC to focus less on revenue collection and more on facilitation. Compliance can be encouraged through partnership programmes with economic operators and the systematic use of risk management that would make clearance of compliant traders faster. There are currently no partnership programmes in place that would offer facilitated procedures to regular or compliant traders, and there is also no systematic use of risk management by Bhutan customs.

Consignments are physically inspected at a rate of 100% if coming from third countries, and at a rate of 30% if coming from India. The physical inspection can have different degrees of intrusiveness. Items that are not subject to intrusive detailed inspection include, in particular, raw materials, as well as government consignments, non-sensitive goods, and single-item container loads. Consignments are selected for inspection on the basis of their composition (single or multiple items) and the consignee. Customs also uses tip-offs from informers on both sides of the border to target consignments for inspection.

Informal trade is vibrant in Bhutan, as identified by surveys carried out by RMA in 2006 and 2009 in major commercial towns along the border with India. This issue is discussed in Chapter IV of the present report, together with information on informal trade. In the future, such surveys should be carried out with the active participation of the Department of Trade.

6.2. Transport infrastructure and services

6.2.1. Transport network and cargo flows

Bhutan has witnessed the development of an extensive road network since the 1980s. Paved roads expanded from 1,500 km in 1970 to 1,763 km in 1989, and 4,393 km in 2007. During the

75 *World Bank 2010, Bhutan Investment Climate Assessment Report*

76 *Figure for 2010 in the Annual Revenue Report 2010. The figure was 4.25 % in 2003 (WCO). The collection of the Bhutan Sales Tax and excise at the border by Customs needs to be taken into account when considering this figure.*

same period, the number of registered vehicles grew at a rate of 9 percent per year. There are now 57,618 vehicles, all categories included, registered in Bhutan[77]. Traffic levels will continue to grow and are likely to increase by up to eight times from 2010 to 2040[78].

Despite the progress made, travel time is often long and dangerous: the winding mountainous roads with a general width of 2.5m have to support two-way traffic, and their physical condition is often poor. Enlargement of the roads could bring a substantial reduction in travel times and operating costs. For example, the travel time between Phuentsholing to Thimphu, one of the main arteries, would be cut by 6 to 3 hours by enlargement to a two-lane road and the construction of a new bypass.

Table 6.3 Distances and travelling times by road in Bhutan

From	To	Distance (km)	Travel times (hours)
Thimphu	Phuentsholing	174	6
Thimphu	Gelephu	272	3
Thimphu	Bhumtang	267	6
Phuentsholing	SamdrupJongkahr	400	10
Phuentsholing	Samtse	74	2
Phuentsholing	Gelephu (via Bhutan)	373	…
Phuentsholing	Gelephu (via India)	295	…

Source: DTIS Mission August 2011, based on data from different sources

The Bhutan Transport 2040: Integrated Strategic Vision presents the major challenges and the strategies to address them. These include, inter alia, the enlargement to four road lanes, tunnels and viaducts.

The southern east-west axis is the last remaining gap in the road network. The Government is committed to develop this axis, as it is an important element for the planned industrial estates along the southern border. Numerous industries are already located in this area, in particular heavy industry in the Pasakha Industrial Estate but also cement production in the Samtse and Nganglam areas. Based on the demand for industrial space, the RGoB aims to set up and develop industrial estates and special economic zones in Sarpang, Samtse, Samdrup Jongkhar and Mongar. However, because of very poor road conditions, freight traffic between these southern regions usually takes the roads on the India side. This creates unnecessary delays and costs as the traffic is escorted by India customs. Without a substantial investment, low transportation speed and poor access to the regional road network will continue to remain a barrier and a cost factor for the economic development of the southern region.

77 *Statistics provided to the mission by the RSTA in August 2011.*

78 *ADB 2011, Bhutan Transport 2040 Integrated Strategic Vision: Strategies Report Project*

Other modes of transport, such as airfreight or rail, do not play an important role for trade. Rail connections are not available inside Bhutan and the rail connection in India requires transshipment, as there is no railhead yet into Bhutan. The additional costs and the low frequency of services available outweigh potential gains from rail transportation. Airfreight does not play an important role, as only small volumes are exported by air; any significant increase in volume is unlikely in the short-medium term to make the airfreight business attractive to private service providers. The current airfreight is composed of matsutake mushrooms and cordyceps that are exported to Japan and Hong Kong, and spices and lemon grass essential oil to overseas markets. In 2011, because of the demands of tourism, the construction of two domestic airports is underway in the central and eastern parts of the country. A third domestic airport is under construction in Gelephu.

Road freight traffic in Bhutan consists of three categories: (i) mining, metal and metal based products moved as bulk cargo, (ii) agriculture and horticulture products moved as general cargo in open trucks or, rarely, in dedicated refrigerated containers, and (iii) manufactured products moved in-country as general cargo in open trucks or containerized when coming from a third country. Manufactured products are imported from India, Bangladesh or third countries. The majority of cargo shipments are transshipped in Phuentsholing for transport inside Bhutan. As the roads in Bhutan do not support a 20 or 40 foot container, the containers in transit through India have to be destuffed in Phuentsholing and the consignments moved to smaller trucks for onward conveyance.

6.2.2. Regional connectivity

6.2.2.1 Transit corridors. Bhutan is dependent on transit traffic through India for access to the sea and third-country markets. There are three main transit corridors: Phuentsholing-Kolkata, Phuentsholing-Burimari, and Phuentsholing-Birgunji. Of these, the Kolkata corridor carries the most regular and substantial freight flows, as it is used for the transit of third country goods. The performance of this corridor is however hampered by operational delays in the port of Kolkata - a lengthy clearance procedure - and by frequent strikes en route. Joint efforts by the public and private sectors and better cross-border coordination are needed to remove regulatory and other constraints to the movement of cargo along this corridor.

Bhutan has to negotiate entry/exit points for import, export and bilateral transit with India, Bangladesh and Nepal, as no sub-regional transport or transit agreement exists. India granted Bhutan 16 entry/exit points in the trade agreement negotiated in 2006. Five of these enable road connections between Bhutan and Nepal and/or Bhutan and Bangladesh. Currently, three of the transit routes are frequently used for freight traffic. These are (i) the Phuentsholing-Jaigaon-Kolkata corridor for transit traffic via seaport to third countries, (ii) the Phuentsholing-Jaigaon-Changrabandh-Burimari trade corridor to Bangladesh, and (iii) the Phuentsholing-Jaigaon-Raxaul-Birgunji corridor for Nepal.

The main transit trade takes place on the Phuentsholing/Jaigaon to Kolkata port corridor. The average travel time for the distance of approximately 750 km is three to four days. Movement of goods along this corridor faces non-physical barriers. Trucks

are often delayed because of political strikes blocking the roads, checkpoints and border stations. Other problems encountered are delays in the transit clearance in the port and numerous checkpoints. Bhutanese trucks are also blocked from carrying goods on this corridor.

Freight traffic between Bhutan and Bangladesh moves along the Phuentsholing/Jaigaon-Chengrahandha/Burimari corridor with an overall length of 177 km. This corridor is used to export horticultural and mineral products and import garments and melamine products from Bangladesh. This corridor suffers from poor equipment and a lack of electricity at the border station at Burimari, as well as the lack of a warehousing facility. Burimari is not a permanent border station and staff has to be sent from a border station 50 km away[79]. Traders also report frequent requests for informal payments.

As part of its strategy to improve regional connectivity, the RGoB seeks the opening of additional transit routes by negotiating new exit/entry points. This includes, on one hand, transit routes to the seaports of Chittagong and Mongla in Bangladesh and, on the other hand, transit routes that connect the planned new industrial estates in the eastern part of the country to international gateways. In 2010 alone, 11 new exit/entry points were put on the table of negotiations with India, including points in the Samtse, Gelephu and Samdrup Jongkhar regions.

New exit/entry points are also part of the trade and transit negotiations with Bangladesh. The objective is to establish a transit corridor from the seaports by road via (i) Burimari to Phuentsholing, (ii) Tamabil to Samdrup Jongkhar, and (iii) Nakuagon to Gelephu. In addition to road connections, rail-road links and inland-waterways road links are also discussed. The protocol to the trade agreement (under negotiation) with Nepal lists the following entry and exit points: Kakarbhita, Biratnagar, Birgunj, and Kathmandu airport on the Nepalese side, and Samdrup Jongkhar, Gelephu, Sarpang, Phuentsholing, Samtse and Paro airport on the Bhutanese side.

Transit and transport corridors do not however consist only of physical transport infrastructure. The movement of goods along a corridor also requires a legal framework that covers the movement of goods on the corridor, procedures and, ideally, an institutional mechanism for cross-border collaboration and management of the corridor. A functioning transit regime that sets the legal framework and procedures for the movement of the goods is key to the performance of the corridor. Currently, this kind of operational transit regime exists only between Bhutan and India and covers the Kolkata-Phuentsholing corridor; however, various other non-physical barriers hamper the performance of this corridor[80].

The potential option of the Bangladesh transit corridor shows the need to take into account elements other than physical infrastructure. The distance to the ports may be shorter and the ports less congested than Kolkata, but this is not sufficient for a transit corridor. According

79 *Artnet 2008, "Transit and Trade Barriers in Eastern South Asia: A Review of the Transit Regime and Performance of Strategic Border-Crossings," in Asia-Pacific Research and Training Network on Trade Working Paper Series, No. 56, June*

80 *See sectors on customs transit procedures and bilateral and transit traffic in this document.*

to the Government of Bangladesh, the ports can only offer transit facilities if major investments are undertaken[81]. The road infrastructure does not support 40-foot container truckloads, the border posts are not sufficiently equipped, and no transit regime that would cover the customs procedures and the regulations of transit traffic is in place[82]. Bhutanese trucks cannot enter Bangladesh and goods have to be transshipped at the border. These issues have to be addressed if the Bangladesh transit corridors are to provide an economically competitive solution. A key question will be finding an agreement over the cost of the infrastructures and their maintenance. Bangladesh introduced a transit fee in 2010 for goods transiting its territory[83]. The application of this fee was suspended in summer 2011. The question of fees nevertheless shows how contentious the issue of infrastructure for transit may be. Bangladesh favours a regional transit agreement over bilateral agreements. A regional transit regime would effectively underpin the operations on the transit corridors linking the sub-region. It is a reasonable approach that provides advantages for all countries, including Bhutan.

6.2.2.2 Bilateral and transit traffic. Bhutan imposes restrictions on foreign suppliers of passengers and freight services by air and by road. The neighbouring countries do the same. Officially, India has granted traffic rights to Bhutanese transporters for bilateral as well as transit traffic, which in theory allows them carry goods from Bhutan to the port of Kolkata and to the border crossing with Bangladesh, as well as to pick up goods for import into Bhutan and deliver goods for exports to India. A permit system is in place for Bhutanese trucks and the permits are issued by the RSTA in Phuentsholing. In reality, these traffic rights cannot be exercised. Transport syndicates prevent Bhutanese drivers from loading goods in India for Bhutan, while the Indian RSTA does not recognize the permit and imposes difficult negotiations for truck drivers trying to drive through. Hence, although Bhutanese trucks can carry exports to India, the empty returns place them at a cost disadvantage in relation to their Indian counterparts that can carry consignments in both directions.

Indian trucks also require a permit to operate inside Bhutan beyond the Phuentsholing / Pasakha area where they can operate without such permits. The permits are delivered by the RSTA in Phuentsholing and cost 100 INR per day. Bhutanese transport operators complain that too many permits are delivered, creating losses for Bhutanese transport operators. Bangladesh does not grant traffic rights to Bhutanese trucks. Goods therefore have to be transshipped from Bhutan-registered or Indian-registered trucks to Bangladesh-registered trucks at the border crossing.

Transit goods are moved under one bill of lading until the port of Kolkata. Once the goods arrive there, the consignee has to make a new arrangement for the onward transportation. This requires the intervention of an intermediary, usually a representative of the transport company. A through bill of lading would facilitate and speed up the movement of the consignments out of the port as the

81 *The Government of Bangladesh estimates the costs for upgrading the infrastructure at over $7 billion.*

82 *The border station at Nakuagon was transformed into a full border post only in the second half of 2011.*

83 *Rules for Customs Management of Commodities in Transshipment and Transit 2010. The rules impose a training fee for all goods transiting Bangladesh. The fee is 10,000 BDT for 1 TEU container moving by road and rail, and 1,000 BDT per metric tonne for non-containerized goods. 100,000 BDT correspond to $135 and 5,800 INR.*

shipping lines take over the responsibility for arranging the onward road transport. Shipping lines usually enter into contractual relationship with some of the transit operators to build a reliable transport change. A through bill of lading alone would however not be sufficient to speed up the process as the transit clearance formalities still take two days at minimum. Only a combination of both these factors - simplification of the transit customs procedure and a through bill of lading - could reduce times.

6.2.3 Transport and logistics industry

6.2.3.1 Transport industry. The contribution of the transport, storage and communication sector to GDP grew from 6.2 percent in 1990 to 9.9 percent in 2008[84]. Employment opportunities in the transport industry have also increased in the past years. The number of persons employed in the transport, storage and communication sector in 2010 was 9,500[85]. The transport sector accounted for 5.9 billion Nu of the GDP in 2009: 66 percent of the value comes from land transport, 17 percent from telecommunications, and 16 percent from air and other transport[86].

The transport and logistics sector is liberalized and very little regulated. Companies wanting to engage in these activities have to register for a service license and drivers have to obtain a truck-driving license. The latter does not require additional driving training.

In a recent report, the ADB pointed out that freight rates in Bhutan are higher than in the region[87]. Government agencies pay a fixed price of Nu 6.5 per tonne per km for heavy vehicles and, according to one source, the private sector asks for a markup of 20 percent[88]. Freight costs for road transport of 10 tonnes from Phuentsholing to Thimphu are approximate Nu 15,000. The freight costs for a TEU container from Calcutta to Phuentsholing are Nu 30,000.

There are several factors leading to the high costs: (i) the transport sector has relatively high fixed costs, with fuel making up 50 percent of the operating costs; (ii) staff costs are high due to a shortage of drivers; (iii) land prices for warehouses, workshops, parking and storage places are also high; (iv) the poor conditions of the road network cause long travelling times; (v) cargo volumes are low and unbalanced, and (vi) the low level of containerization is a factor that increases handling costs.

The transport industry is fragmented and dominated by small owner-operators. Only few transport companies with more than 20 trucks exist, and only three companies have more than 100 trucks. There are currently 5,000 trucks registered in Bhutan, most of them two-axle vehicles that can carry a load of 10 tonnes. Bhutanese companies usually contract external transport services or companies. Own-account operations are not standard for Bhutanese companies. Only the two warehousing companies use their own trucks for delivery and domestic transport.

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84 *EDP 2010.These figures have to be viewed with some caution as it is not possible to ascertain the contribution of the freight-related services to this growth.*

85 *Labour Force Survey Report 2010, Ministry of Labour and Human Resources.*

86 *RMA 2011. Annual Report 2009/2010.*

87 *ADB 2011, Bhutan Transport 2040 Integrated Strategic Vision: Strategies Report Project*

88 *Ibid.*

At this stage, the Bhutanese transport sector cannot provide adequate services for the trading community and cannot compete with Indian transport services on transit traffic as well as on domestic transport. Indian-registered vehicles, often 10-wheelers that can carry up to 20 tonnes, are used to move the heavy equipment of the projects, carry the transit consignments from third countries and also operate widely in the Phuentsholing area including Pasakha. Indian trucks thus transport large parts of the import and export volume. This importation of transport services is an economic loss for the Bhutanese transport sector.

6.2.3.2 Logistics requirements. Transport is the most important component of logistics services in Bhutan. Other logistics services, such as storage, handling, loading, inventory holding and planning, are not developed and available in Bhutan. There are few dedicated freight forwarders[89]. Large manufacturers and traders arrange transport and clearance services themselves and do not use the services of a logistics service provider. The demand for transport services has grown, but the transport and logistics industry has not developed accordingly and cannot offer a high-quality service. There is a lack of logistic infrastructure, such as warehouses, unloading and loading areas, dedicated equipment such as containers, and professional handling services. The government plans to bring to tender a distribution and warehouse centre in the urban area of Phuentsholing, which would combine clearing and logistics facilities and also act as a dry port, mainly for transit goods from third countries.

The lack of supporting infrastructure from storage to loading areas, workshops and parking spaces is explained by the high costs for the rent of land in Phuentsholing. Whilst the manufacturing industry can rent land for Nu 5 per square meter, the transport sector has to pay Nu 42 per square meter. The transport sector cannot compete with Indian transporters, who operate freely in the area close to the border with India and capture most of the traffic for import, export and transit. Indian transporters also play an increasing role in domestic transport as they offer better services and trucks with more loading capacity. As a result, Bhutanese transporters and trucks carry only a fraction of the freight volume. This limits the economic viability of the sector and reduces the incentives for the private sector to invest in this sector.

Another complication for logistic services is the lack of containers. Most containers that come into the country with the imports from third countries return empty to the port of Kolkata. The shipping lines allow only 14 days of use of containers for inland transport. Once this time period has passed, demurrage fees have to be paid. Exports of goods are often not readily available in sufficient volume in Bhutan; it is for this reason that most of the containers return empty to Kolkata. As a consequence, containers for exports have to be re-imported and the costs for the importation borne by the exporter.

Transport is a pivotal factor impacting the competitiveness of products and business climate. The cost and time it takes to get products to the market and the state of their

89 *Freight-forwarders are intermediaries that offer services such as booking the movement of goods, storage and customs clearance activity.*

quality when they arrive may determine whether or not a product gets entry into the market. Transport issues are considered a high constraint by Bhutanese business: 17 percent of companies, and 9.1 percent of the business context in general[90], consider transport to be the main constraint for investment. Only reliance on foreign workers and access to finance are cited as a more important constraint. The absence of a well-managed and well-functioning transport and logistics industry in Bhutan adds to the negative impact caused by the rugged topography and the difficulty of access due to the landlocked nature of the country, and further increases the transport costs and times.

Specialized freight services are important, in particular for the transport of perishable goods such as agriculture and horticultural products. If Bhutan wishes to increase its export competitiveness in these commodities, it needs to develop these services, including the freight forwarding sector. Already, farmers are complaining about the lack of sufficient trucks and transport services during the peak season.

Freight forwarders are quasi inexistent at this stage. As the majority of the consignments by Bhutanese traders are small to medium-sized, the consolidation services of freight forwarders are crucial for achieving economies of scale and bringing down transport costs. It seems necessary to develop freight forwarding and middle-sized transport companies to improve the level and quality of services. The distribution and warehouse centre in Phuentsholing will also help in storing consignments until consolidation with other consignments. The space allocated to commercial storage services should therefore be adequately large and be managed professionally.

6.2.3.3 Air transport. There is only one air transport carrier, Druk Air, that operates international and domestic flights into and from Bhutan. An additional operator, a company with Bhutanese capital, is scheduled to begin domestic flight operations by the end of 2011 and may also operate secondary routes to India. Airfreight is transported on a "space availability basis", as priority is given to passengers. The air cargo carrying capacity is therefore limited to 2 tonnes per flight on average. It frequently happens, during peak travel times and in particular at the Bangkok airport, that airfreight consignments are off-loaded and delayed for up to 2 weeks. Nevertheless, cargo freight has increased in the past five years (see table 6.4). As mentioned before, it remains a niche transport mode and is unlikely to gain in traffic volume soon.

Table 6.4 Air cargo statistics

Year	Air freight (tonnes)	Year	Air freight (tonnes)
2005	164	2008	369
2006	220	2009	320
2007	298	2010	416

Source: DTIS Mission August 2011. Interview with Druk Air

6.3. Insurance and Banking services

6.3.1. Insurance and liabilities

In international trade, goods are generally insured during conveyance. The terms of

90 *World Bank 2010, Bhutan Investment Climate Assessment Report*

trade defined in the sales contract determine who has the responsibility of arranging this insurance coverage: the buyer or the seller. Different liabilities and insurance schemes exist. According to importers and exporters, the most commonly used terms of trade are EXW (factory) for exports, Carriage and Insurance Paid (CIP) for imports from India, and EXW or CIP for imports from third countries. Under the EXW (factory) terms, the seller has no obligation to provide insurance coverage and does not pay and arrange for cargo freight and insurance. It was noted that traders have very limited knowledge of the terms of trade and their implications.

6.3.2. International payment services

As stipulated in the Regulations for Import from Third Countries, Letters of Credit (L/Cs) are the prescribed payment method for goods from third countries. Cash payment and payment by credit card are explicitly prohibited for commercial transactions. However L/Cs may not be the most appropriate payment method for the traders in Bhutan and are, de facto, little used. According to a source from the banking industry, the most commonly used payment methods for imports and exports from third countries are cash payment or advance payment by wire transfer (60 percent of transactions), demand draft (20 percent), and documentary credit (20 percent). Advance payment by wire transfer is also largely used for trade with India, although this method does not offer enough security for Bhutanese traders. Experience with other methods of payment has to be gained and knowledge increased on the impact of the different payment methods.

L/Cs are prepared using the UCP standard. Payments by L/C are executed 14 days after receipt of the original Bill of Lading in hard copy from the seller's intermediate bank. Banks request 100 percent coverage of the value of the goods that are placed under the L/C. Twenty percent of this has to be provided by account holdings with the banks and 80 percent must be guaranteed by another bank. Commercial banks also provide export credits at an interest rate of 15 percent. These comprise pre-shipment credits to purchase inputs and goods to be exported, credits to finance transportation, packing and insurance costs and charges, and post-shipment credits to cover the financial gap before receipt of payment for exports.

A foreign exchange control is in place in Bhutan; traders can only obtain foreign exchange upon presentation of a valid import license. Importers have to present the import declaration endorsed by customs and the landing certificate to the bank upon termination of the transaction. The bank provides Forex reports on the use of foreign exchange and on compliance by traders. Traders have to present the import declaration to the bank that provided the Forex.

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7 TECHNICAL BARRIERS TO TRADE (SPS/TBT)

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CHAPTER 7. TECHNICAL BARRIERS TO TRADE (SPS/TBT)

7.1. Significance of technical regulations

7.1.1. Sanitary and Phyto-Sanitary control (SPS)

The Royal Government's 10th FYP corporates ambitious goals for the increased commercialization of agriculture, with emphasis on organic production methods and the expansion of horticultural and non-wood forest product exports. Bio-security-motivated barriers to trade tend to be relatively low in neighbouring countries, which tend to have similar pest and disease profiles; this is the current situation (with some exceptions) between Bhutan and India and Bhutan and Bangladesh. On the other hand, SPS barriers to trade with more distant countries may be very significant, especially in the case of developed countries. Meeting the SPS import conditions of the European Union or Japan may require Bhutanese authorities to demonstrate a high level of knowledge about, and control over, relevant pests and diseases. Bhutan would also need to be able to supply reliable certification that exported food meets the official requirements of the importing country. Similarly, Bhutan's arrangements for the certification of organic products must be robust enough to allow international recognition.

Concerning imports, as Bhutan is a net food importer, measures to ensure the safety of imported foods for human consumption are important for several reasons. Firstly, they protect the health of the Bhutanese people. Secondly, they help to sustain Bhutan's reputation as a safe and healthy destination for international tourism a fast-growing industry in Bhutan. Thirdly, bio-security measures which limit pests and diseases ensure the productivity of Bhutan's agriculture-based industries and avoid the costs of eradicating or controlling harmful organisms that may enter the country. Finally, these measures also serve to protect the unique natural ecosystems of the country.

7.1.2. Other technical regulations

With respect to non-SPS technical regulations, Bhutan has so far concentrated on the building and construction industry, focusing on establishing norms and related regulatory activity relevant to the industry. Until now a fully elaborated SMTQ (standards, metrology, testing and quality) infrastructure has not been necessary to support the limited range of products that Bhutan manufactures for domestic consumption or export. However, as the economy continues to grow and manufacturing activity diversifies, there will be a need for the parallel development of relevant norms and a growth in testing and certification capability.

7.2. Institutional and legal framework for Sanitary and Phyto-Sanitary measures and Technical Barriers to Trade (TBT)

7.2.1. Food security and biosecurity

7.2.1.1 BAFRA. Most SPS-related regulatory activity is under the authority of the Bhutan Agriculture and Food Regulatory Authority (BAFRA). BAFRA was established in 2003 within the Ministry of Agriculture and Forests and integrates public sector responsibilities for SPS within the one body. The Authority has

a management board chaired by the Minister of Agriculture and Forests and includes other representatives of MoAF, other interested ministries and the private sector.

The Policy designates BAFRA as the competent authority to coordinate all bio-security-related activities. The concept of biosecurity, as defined in the Bio-security Policy of the Kingdom of Bhutan (2008), includes the following: food safety; zoonoses; the introduction of animal and plant pests and diseases; the introduction and release of living modified organisms, genetically modified organisms and their products; the introduction and management of invasive alien species; and the official control of significant pests and diseases.

BAFRA is responsible for the issuance of export certification for agricultural products as well as for import control over livestock, plants and their products, and food safety, including imported and domestic products. It implements its responsibilities in cooperation with other parts of the MoAF, including the Department of Livestock, the Department of Agriculture (incorporating the National Plant Protection Centre and the Department of Forests), as well as with the National Environment Commission[91]. BAFRA is also the national focal point for the *Codex Alimentarius* Commission and incorporates the National Food Testing Laboratory (NFTL). The Policy provides for the appointment of a national bio-security commission, which has now been established. Bhutan has a substantial body of modern legislation related to SPS matters[92]. A draft bio-safety law will be presented to the RGoB and the development of a bio-security law is under consideration.

BAFRA has approximately 150 staff, of which about 15 are assigned to the central office. Eleven staff members (and 3 temporary staff) are at the National Food Testing Laboratory (NFTL), and 125 are located in the field. Of the field staff, 27 are food inspectors and about 50 are assigned to border control points.

7.2.1.2 BAFRA Food Safety Project. A food safely project is under review. BAFRA anticipates that it will shortly receive written confirmation of a proposed FAO technical cooperation project on food safety budgeted at around $150,000. The project will address the following:

- The establishment of national standards for prioritized food commodities.
- Standard food inspection procedures for nation-wide implementation.
- Enhanced public awareness and education on food safety and consumers' health.
- Encouragement of food industries to adopt GMP, HACCP and ISO certification.
- The development of capacity within BAFRA to conduct risk-based food inspection and laboratory analysis.
- The enhanced capacity of BAFRA to

91 *For example, the Department of Forests says that the staff it has stationed at border entry points are there to inspect certificates of origin for imported timber in order to prevent the importation of stolen wood, and to verify quantities to ensure proper payment of duty; BAFRA staff have the responsibility to check for pests and diseases in imported timber.*

92 *The Plant Quarantine Act, 1993 (and the Plant Quarantine Rules, 2003); the Seeds Act, 2000 (and the Seeds Rules and Regulations, 2006); the Livestock Act, 2001; the Pesticides Act, 2000; the Food Act, 2005 (and the Food Rules and Regulations, 2007 and the Bio-safety Rules and Regulations, 2006); the Forest and Nature Conservation Act, 1995 (and the Forest and Nature Conservation Rules, 2006); the Biodiversity Act, 2003; the National Environment Protection Act, 2007.*

supervise, certify and accredit various certification systems.

7.2.1.3 The National Plant Protection Centre (NPPC). The National Plant Protection Centre is included under the heading of SPS infrastructure, as the plant issues managed by the NPPC are closely related to Bhutan's agricultural export ambitions. The NPPC has been designated as the national plant protection organization for Bhutan under the International Plant Protection Convention.

The NPPC is part of the Ministry of Agriculture and Forests. It has 29 staff in Thimphu, and 3 located in the regions; surveillance activities are conducted by the Ministry's 205-strong staff of extension officers. The NPPC has the primary responsibility for technical, as against regulatory, aspects of phyto-sanitary control. It incorporates a laboratory which was recognized in June 2011 as the National Referral Laboratory for Plant Health. The NPPC laboratory is mandated to carry out all diagnostic work concerning plant pests, disease organisms and weeds. It also undertakes R&D concerning the effectiveness of plant protection methods such as chemicals, bio-pesticides and botanicals, and administers quality tests of the plan protection inputs.

The NPPC has a major role to play in facilitating increased agricultural production and exports by introducing superior genetic strains (seeds, seedlings, rootstock, etc.) that are free of pests and diseases, and by assisting farmers to maintain productivity in the face of the challenges of climate change, including drought and pest/disease outbreaks.

7.2.2. Standards, certification and metrology

The Bhutan Standards Bureau (BSB) is the successor to the Standards and Quality Control Authority (SQCA). The Standards Act was passed in 2010 and regulations under the Act are currently being drafted. The appointed chair of the Bhutan Standards Board, which directs the Bureau, is the Minister of Works and Human Settlement. The draft organization chart for the Bureau is to be found in the Annexes.

The BSB is responsible for standards, metrology, and certification. It will not itself become an accreditation body, but will act as the national facilitator for organizations seeking accreditation in relevant fields via a National Accreditation Focal Point. Its total staff currently numbers 45, of whom most are qualified engineers; scientific staff may be recruited in future.

The development of the BSB and of its predecessor, SQCA, in recent years has been supported by technical assistance provided by UNIDO under the SAARC-SMTQ project begun in 2005. Phase 2 of this activity will conclude by June, 2012. The project has provided metrology equipment and training, familiarization with relevant international standards, assistance with legal drafting, etc. Institutional development has also been supported through the ADB's Micro, Small and Medium Enterprises (MSME)'s development project, focusing on the creation of structures, action planning, etc. The MSME project is also scheduled to terminate at the end of 2011. The BSB reports that there is now no further technical assistance in the pipeline. However it is establishing a web of MoUs with counterpart agencies in India, Indonesia, Malaysia and

Singapore.

7.3. Institutional strengths and weaknesses

7.3.1. BAFRA's strengths and weaknesses[93]

BAFRA has several important advantages:

- There is a well-developed policy framework consistent with stated national goals.
- In general there are clear mandates for BAFRA's activities which embrace the full range of SPS responsibilities[94].
- There is a substantial body of contemporary legislation to guide and support necessary regulatory programmes.
- Relationships with related agencies are generally cooperative rather than competitive[95].
- The prevailing level of corruption in the public sector is far lower than that of most other developing countries. Significant technical assistance has been provided and much of the required infrastructure, including quarantine facilities at the border and laboratory buildings and equipment, exists as a consequence of investment by the RGoB and donors.

BAFRA is therefore in a good position to conduct the basic regulatory activities of an official food safety/biosecurity agency, provided that it has adequate numbers of trained staff and financial resources to implement well-organized programmes. However, in reality, the necessary resources are not available to BAFRA. The major weakness is the lack of senior professional staff, since for the term of the current tenth 5-year plan, the RGoB has determined that there should be zero growth in the numbers of public servants. The number of senior managers/professionals in the central office is therefore very small, and is often reduced even further by the short and long-term absences of officers for academic or other training, as well as by delays in recruiting replacements for staff that leave the organization. As a result, the Authority has very little capacity with which to organize and manage its programme activities. More important, but less obvious, is the fact that BAFRA has no reserve capacity to cope with any kind of significant food safety or biosecurity emergency situation, or to carry out proper emergency planning and preparedness training.

A particular weakness is BAFRA's lack of capacity to conduct sound, science-based risk analysis. Potential risks to Bhutan's forests, for example, should be comprehensively evaluated and the results should inform the structuring of border inspection activities and in-country surveillance. Meanwhile, complaints may be heard about excessively strict controls at the border, such as those intended to keep out avian influenza, with the result that the domestic price of eggs supplied by the few small commercial producers within Bhutan is now beyond the means of many

93 *This analysis of BAFRA's strengths and weaknesses takes into account the conclusions reached in the FAO study 2007-2008, Bio-security Capacity Building Needs Assessment, Country Situation Report: the Kingdom of Bhutan, carried out by Dr. R. Frampton, Ms. M. Hopper and Dr. M. Takeuchi.*

94 *In the view of the National Plant Protection Centre there is a need for the clarification of roles and responsibilities between the NPPC and BAFRA concerning the conduct of pest risk analyses (PRA) and plant pest and disease surveillance.*

95 *For example, recently there has been a rationalization of laboratories within the Ministry of Agriculture and Forests that has resulted in BAFRA's relinquishing responsibility for the veterinary and seed laboratory functions that were previously under its control, retaining only the National Food Testing Laboratory. Laboratory requirements in relation to animal and plant health are now met elsewhere in the MoAF.*

households. Again, proper risk analysis is required to underpin the policies adopted. Apart from the capacity to carry out sanitary and phyto-sanitary risk analysis, BAFRA also needs its own internal capacity to incorporate risk-based and performance-based regimes into general inspection programmes so that resources can be concentrated on addressing the highest risks.

BAFRA must also be able to support exports of Bhutanese agricultural and non-wood forest products. Although the government has identified eight priority agricultural products for increased exports, there is no evident capacity to analyze in detail the phyto-sanitary risks that may impede the achievement of this goal; neither is there the capacity to explore the SPS barriers that may be encountered in markets beyond India and Bangladesh.

Staffing shortages also affect the National Food Testing Laboratory (NFTL). International accreditation of the NFTL depends partly upon the maintenance of a sufficient number of technically qualified staff. During the current critical phase of the accreditation procedure, three scientific officers have been employed on a temporary basis. Unless their employment can be continued, the Laboratory will not be able to maintain accreditation.

In relation to BAFRA's food safety responsibilities, the FAO has recently concluded that the Food Act of Bhutan and its Rules and Regulations cannot be fully implemented due to the practical problems and resource constraints faced by the sectors concerned. There are 27 food inspectors currently available to implement the Food Rules and Regulations that are posted in all 20 Dzongkhags and in the main towns and cities; this number is insufficient and more manpower is needed. Education and public awareness concerning food safety and risks to consumers' health at all stages of the food chain need to be strengthened in order to facilitate the enforcement of food rules and regulations.

7.3.2. Organic agriculture and biosecurity

The RGoB is committed to a policy under which "organic farming will be a major focus area of the Royal Government to promote Bhutan as an organic brand"[96]. The national framework for organic farming (2006) proposes that Bhutan will "become organic" by 2020. Organic farming is to be promoted through the use of viable alternative farming methods and inputs, while the use of harmful chemical fertilizers and pesticides will be phased out. Under the National Organic Programme (NOP) a national organic standard has been drafted and is under study within the MoAF. The standard has been aligned with the international norms of the International Federation of Organic Norms (IFOAM) and with the Codex Alimentarius standards for food productions and food safety). However it is not clear at the present time whether, and how, this standard will be adopted under Bhutanese law[97].

Currently there is one principal Bhutanese product - lemon grass oil - that is certified by an Indian organization[98]. Other products that may potentially be sold as organic are produced in very low volume, and apparently there would

96 *EDP 2010*

97 *This issue is not addressed in the relevant McKinsey "compact".*

98 *Aditi, based in Bangalore, certifies Bio-Bhutan's products.*

be no significant premium available for them in the market place if they had organic status. The development of export markets, especially Europe, for organic-certified sweet buck-wheat is currently under study.

It is agreed within the government administration that BAFRA will assume the role of the organic certifying agency for Bhutan. It is not yet determined who will accredit BAFRA as a certifying body with international recognition; possibly India's National Accreditation Board for Certification Bodies (NABCB) may serve this function. Meanwhile BAFRA is actively seeking to build a cooperative relationship with India's Agricultural and Processed Food Products Export Development Authority (APEDA), and with the Ministry of Agriculture and Cooperatives of Thailand, in order to learn from their experience and possibly to tap into their expertise. Future membership of the Thailand-based East/South Asian Certification Alliance (CertAll) is also under consideration.

In summary, the current situation is that while the RGoB has drawn up a clear policy to encourage and facilitate organic agriculture and the export of organic products, the necessary infrastructure is not in place. BAFRA has been identified as the national certification body, at least *ad interim*, but is apparently still at the stage of learning how to go about its tasks. The relevant RGoB authorities must now address the legal issue of whether BAFRA needs new or additional statutory authority in order to serve effectively as the organic certification body (bearing in mind that the primary function of the certification body is to certify farmers and processors, not the products themselves). There is a further legal question concerning which legal authority will prevent farmers and processors from passing off non-organic products as organic. BAFRA itself will have to follow certain processes and meet certain criteria if it is to become accredited, and these processes and criteria should be specified by the body that is to provide accreditation. Part of the pre-requisites for accreditation will include the development of suitable management structures and procedures within BAFRA, and the training of BAFRA staff to process applications for certification. Certification will have to be adapted to the circumstances of Bhutan – for example, as to the way in which cooperatives of very small scale farmers/collectors/processors are to be certified.

Considering the novelty and complexities of this development process, it would be highly desirable to formulate an action plan that would systematically identify and schedule the many steps to be undertaken. Such a plan would also facilitate the framing and costing of potential donor-funded technical assistance projects in this area.

7.3.3. Bhutan Standards Bureau (BSB)

Following the Standards Act passed by the Parliament in July 2010, the Bhutan Standards Bureau (BSB) was established as the successor to the Standards and Quality Control Authority (SQCA).

The near-term ambitions of the BSB are understandably modest, as the Bureau is yet to be fully established, with the necessary physical infrastructure and other essential resources. The Standards Act sets out the core provisions for the BSB as follows:

- Standards development, adoption, and enforcement wherever necessary.

The Bureau has planned and instituted an initial group of essential drafting committees on which relevant government agencies and private-sector stakeholders are represented to provide technical

- expertise. The role of the BSB will be to provide secretariat functions and to administer the processes for the formal adoption and promulgation of standards and associated norms[99].
- Conformity assessment programmes, certification of industrial goods and products, management systems, and inspections. At the beginning, the BSB does not intend to operate and enforce a broad system of product certification, but rather to concentrate on one area: the certification of building and construction materials. Once the Bureau has gained capability and professionalism, coverage would be extended to other areas, such as public health and safety and environmental protection.
- The establishment and operationalization of product testing laboratories and (metrology) calibration laboratories. The BSB aims to operate as the national reference laboratory, preferably leaving matters concerning the technical and administrative regulations of commercial weights and measures to another agency such as the Department of Trade, Ministry of Economic Affairs.
- The operation of accreditation focal points to facilitate the accreditation of laboratories and certifying bodies in the country. The BSB intends to facilitate the accreditation of Bhutanese organizations by India's National Accreditation Board for Testing and Calibration Laboratories (NABL) and similar bodies in the region. The BSB does not itself intend to inspect any items other than construction materials in its initial formative years.

To assist its activities, the BSB is entering into memoranda of understanding with counterpart organizations in Singapore, Thailand and Indonesia, as well as with the NABL.

In its nascent state it is difficult to make firm judgments about the strengths and weaknesses of the Bureau; much will depend upon how the organization carries through its plans over the next year. For the moment, however, no major problems are foreseen.

7.3.4. Accreditation of laboratories

There are several reasons why Bhutanese analytical laboratories should be accredited. One is that Bhutanese certificates may need to be based on tests carried out in laboratories accredited to the relevant international standards in order to meet the import requirements of countries like India, Bangladesh or those further afield. Another reason is that achieving and maintaining international-standard accreditation is an important discipline for laboratories, ensuring that they have full knowledge of the requirements for competent analytical services, and that they have adequate management, standard operating procedures, and equipment.

There are currently few demands for tests on

99 *There are to be committees in the electrical/electro-technical field; construction; wood-based products; textile products; food products and processes; health (pharmaceuticals and indigenous medicines); and management systems. At the time of writing the procedures to be followed in the elaboration of standards had not been developed.*

exported products[100]. The second of the above reasons is therefore the more important for the BAFRA and BSB laboratories. Amongst factors that limit the demand for the Bhutanese laboratory services is the proximity of commercial facilities across the border. Bhutan Agro Food Industries, for example, stated that if there were a need for testing that could not be met by their own small chemical and microbiology laboratories on site, they would not use BAFRA's National Food Testing Laboratory but instead turn to one of a number of laboratories available in India. However, in order to be prepared for potential future demands for internationally-credible analytical testing, especially in support of certification of organic exports by BAFRA, it is important for international accreditation to be obtained.

Extensive assistance was provided both to BAFRA and to BSB's predecessor organization by the UNIDO-funded SAARC-SMTQ project in order to build the capacity of their laboratories, and there are plans to carry the work through to a successful conclusion. BAFRA is confident that its NFTL will receive international accreditation by NABL (India) for a series of microbiological and chemical tests. Inter-laboratory comparative proficiency testing is being conducted in cooperation with a laboratory in Mumbai. The NFTL reported that in general it has insufficient staff resources to support accreditation; at the moment it is temporarily able to do so because three science graduates have recently been recruited on a short term-basis, but it will not be able to continue unless their employment is extended, at a cost of around $18,000 per annum. It has been decided that accreditation will have three-year validity, with semi-annual auditing; the cost of the audits will have to be met by the RGoB unless donor support is available.

Senior officers of the BSB expressed similar confidence concerning successful accreditation (also by NABL), although with some reservations: they pointed out that the existing BSB metrology laboratory building may be unsuitable because of vibration problems, and the equipment provided may be outmoded, requiring replacement.

If neither of the two laboratories successfully obtains accreditation as expected with the assistance of the UNIDO project, some additional support measures may be required according to the circumstances.

Obtaining accreditation is a step in an evolutionary process and not an end in itself. Both laboratories will need to be actively engaged in testing activities in order to maintain their competence; retaining trained staff is also likely to be a major challenge in an economy where high-level technical skills are in short supply. The maintenance and calibration of testing equipment must be provided for. Consequently the parent agencies need to turn their attention to the programme of developmental activities that should follow

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100 *Oddly, Bangladesh currently requires radiological certificates for imports of milk and milk products, edible oil, and other food items including poultry and animal feed products; a health certificate that the product is fit for human consumption is also required but fruits and vegetables (except potatoes) are excluded from this. Certificates of analysis may be required for foodstuffs. Reasonably, for Bhutanese exports, radiological certificates are issued without specific testing of consignments in laboratories or elsewhere, on the basis that Bhutan has no known sources of radioactive contamination of its agricultural products. The certificates are issued by the Ministry of Economic Affairs (BAFRA is unwilling to assume the responsibility since it has no technical capacity to support the attestation in the radiological certificates).*

the UNIDO project, and to potential sources of support for these initiatives.

In discussions conducted by the DTIS team with the managers of the two laboratories, it was not clear whether these managers had given sufficient consideration to possible future demands concerning the kinds or volume of tests to be performed, although the BSB is apparently working towards a three-year action plan. Even if it seems likely that future demand will be much like recent experience, it is important to recognize that it takes time to reach the required level of competence in new areas of testing and to obtain the requisite material. Demand forecasting and planning are therefore necessary. Both laboratories would benefit from business planning along these lines.

Further support will therefore be required for the BAFRA and BSB laboratories to ensure that future analytical requirements in relation to trade are properly met. Similar considerations will apply to the veterinary and plant health laboratories within the MoAF. Some future needs would be met by the technical assistance projects outlined above; further investigation would be required in order to identify additional needs more precisely.

7.4. Priority areas for capacity building

The capacity issues that have been identified require a mix of solutions that would involve both action by the RGoB and its agencies and technical assistance from the donor community for targeted projects. For example, as stated above, BAFRA's main problem is its lack of staff, especially at the senior technical/policy level. It is assumed that the Minister of Agriculture, and through him the RGoB, are aware of the issue. Resolving the problems would seem to depend largely on government priorities. One solution would be for the RGoB to re-prioritize so that BAFRA can recruit and retain the expertise that it needs, since there is only a very small pool of professionally-trained local staff with the capacity to work at senior level on technical policy issues, particularly in highly specialized fields like bio-security risk analysis. For functions such as this extended training is needed, of a kind that would combine classroom learning and on-the-job experience with significant input from expert practitioners from other countries. The RGoB will need both to make staff available for training and to commit to their long-term employment in the area. The aim should be to seek technical assistance for expert advice and training, while at the same time building cooperative relationships with other countries by establishing links with counterpart agencies that already have expertise. Funding should be sought to enable BAFRA risk-analysis staff to benefit from learning assignments with counterpart agencies.

Similarly, for the development of capability in the field of organics, BAFRA will need both staff and training, as well as programme design and management. A technical cooperation agreement with the relevant agencies in India and/or Thailand will meet part of this need, but project-based technical assistance could greatly accelerate progress towards the government's objectives.

7.4.1. Capacity strengthening and technical assistance for BAFRA

7.4.1.1 The preparation and implementation of a biosecurity assistance project. This would comprise:

- *The preparation of a bio-security law*. BAFRA requires expert assistance to develop a bio-security law that would deal comprehensively with animal and plant quarantine issues, consistent with the national Bio-security Policy 2010.
- *Strengthening border protection and risk analysis capability*. Senior technical staff at BAFRA, NPPC and the Department of Livestock should receive expert training in risk analysis techniques. Local and international experts in animal and plant health should develop a practical protocol for risk analyses. They should also participate in a review to identify and evaluate bio-security threats to Bhutan's agriculture and natural environment and specify appropriate, cost-effective control measures.
- *An emergency response plan.* Building on the identification and evaluation of threats, BAFRA should initiate the development of emergency response plans and systems that take into account, inter alia, the potential for assistance in emergency situations from India and relevant international organizations.
- *Facilities and equipment.* Consistent with the review of bio-security threats, equipment should be provided for the screening of passenger luggage, cargo and vehicles at border entry points.
- *Extended-term bio-security expertise*. To assist BAFRA in the development of its role as the SPS coordinating agency, both in framing strategies and designing risk-based programme activities and in staff training and development, the agency should have on-going access to relevant expertise from a contracted international expert. This expert would be present in Bhutan for extended periods over a two-year time span and available for consultation in intervening periods.

7.4.1.2 Support for organic product exporting

Funding and technical support for BAFRA's accreditation as organic certifier. These are necessary for the accreditation of BAFRA as a recognized certifying body for organic producers and products.

An extension of the term of the present long-term organics expert. BAFRA will need support to implement its responsibilities concerning the organic certification of Bhutanese farmers and processors. This support could include, for example, extending the mandate for the external Indian consultant who at present is drafting the detailed development plan for organics-related activities in BAFRA. This consultant could provide further expertise in training field staff for inspection operations, in providing guidance for developing appropriate management structures and procedures, and in helping BAFRA to frame additional proposals for technical assistance.

Maintenance of the analytical capability to support food safety. The ISO 17025 accreditation of the National Food Testing Laboratory can only be maintained if there is an adequate complement of trained scientific staff. This could be achieved with time-limited international support. An appropriate arrangement could be to provide international expert assistance for the laboratory for on-going training and development in testing expertise. During this training period, present temporary staff should be retained, subject to a commitment by the RGoB to provide budget funding for the temporary staff after an agreed date.

7.4.2. NPPC technical assistance proposals

NPPC has put forward two detailed proposals for technical capacity-building: (i) the provision of a building which has adequate capacity to house the national plant reference laboratory, and (ii) support for piloting the national plant pest and disease surveillance programme. From the perspective of trade integration, both proposals would help control plant pests and diseases that might otherwise significantly affect the productivity of Bhutan's plant-based industries. They would also help develop Bhutan's potential for exports to countries that impose strict phyto-sanitary requirements on imports.

7.4.3. BSB technical assistance proposals

BSB has requested two projects for strengthening its capacities:

7.4.3.1 Strengthening institutional development and staff training.

Institutional development: The BSB requires the assistance of an expert or experts to facilitate the development of (i) a strategic plan, (ii) subordinate legislation and (iii) laboratory quality manuals. To enable the Bureau to access and take advantage of the resources available through the web, adequate computers and peripherals are needed and a substantial upgrade of the IT infrastructure is required in order to improve connectivity and increase download speed. The BSB website should also be progressively upgraded. Other office equipment is also needed, as is transportation.

Staff training: An on-going training programme is required to enhance the skills of existing staff and integrate new staff, in areas such as:

- management training for senior staff.
- training in certification under international standards ISO 9001/14001/22000, OHSAS 18001, ISO-IEC 17021/guide 65/guide 67, etc.
- training in standardization under ISO-IEC directives part I & II; ISO Guide 21, Part I & II; and the Copyright Protection of ISO/ EIC Standards (POCOSA) guidelines.
- operationalization of the TBT enquiry point.

7.4.3.2 Upgrading of the testing laboratory:

- construction of a separate laboratory building to provide adequate space for testing and to enable the metrology and testing laboratories to be separated.
- procurement of laboratory equipment to replace inadequate and old equipment and allow training for laboratory managers on ISO 17025 and training for laboratory technicians.

7.4.4. Recommendations

The six technical assistance proposals outlined above were evaluated by the DTIS mission in order to determine priorities. The priority for each proposal was rated (1) highest, (2) very high, or (3) desirable, based on the mission's preliminary assessment of the proposal in terms of its cost-effectiveness in advancing trade integration in the area of SPS measures and other technical barriers to trade and accords.

The ratings prepared by the DTIS mission take into account a range of considerations. These include the directness of the relationship to trade objectives, linkages to previous technical assistance initiatives, potential synergies with other activities, probable success in achieving project objectives, and urgency. Higher

priority has been given to projects that can help reduce the significant bottlenecks created by the shortage in Bhutan of senior level staff capable of working at the interface between technical issues and policy development and implementation.

Table 7.1 Priority rating of technical assistance proposals

Project	Priority
BAFRA proposals	
1. Bio-security project	
Preparation of a bio-security law	(3) desirable
Strengthening of border protection	(3) desirable
Long-term bio-security expertise	highest
2.Support for organic exporting	
Accreditation as an organics certifier	highest
Long-term organics expertise (extension)	highest
NPPC proposals	
1. Provision of a building (national plant reference laboratory), (detailed project available).	**(3) desirable**
2. Piloting a national plant pest and disease surveillance programme (detailed project available).	**(3) desirable**
BSB proposals	
1.Strengthening BSB capacities	
Institutional development	highest
Training (existing staff and integration of new staff)	very high
2. Upgrading of the existing testing laboratory and procurement of equipment	**(3) desirable**

8 BUSINESS ENVIRONMENT AND ENTREPRENEURSHIP

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CHAPTER 8. BUSINESS ENVIRONMENT AND ENTREPRENEURSHIP

Introduction

Graph 8.1 Factors shaping the investment climate in Bhutan, South Asia and Lower Middle Income Countries

Graph 8.1 to the right shows the contrast between the opinions expressed by the business community in Bhutan and those expressed by business communities in South Asia and Lower Middle Income Countries with regard to the most important factors shaping the investment climate[101]. While Bhutan ranks highest for factors such as "political stability", and "low corruption", it ranks in the bottom for the categories "access to finance", "tax rates", "quality of educated workforce", "labour regulations", "transport" and "licenses & permits". What is striking is that the table shows a reverse image of the strengths and weaknesses of the two comparator groups. The concentration of Bhutan's better scores - in the areas of "peace", "stable political environment" and "low level of corruption" - is remarkable, as progress in these sectors is slow and difficult. Indeed, many developing countries take ten to twenty years to reach a similar level of stability and good governance. Conversely, progress in categories in which Bhutan's scores are lower is mainly a question of management and can be achieved rapidly, within a span of three to five years, if the political will exists to engage reforms.

Improvement has already started and has involved taking measures such as increasing access to finance, diminishing tax rates, cutting down on licenses and authorizations and facilitating trade. The country's achievements are illustrated in the World Bank's Doing Business, 2012, which shows for example that for the item "access to finance", Bhutan progressed from rank 170 out of 183 countries in 2011 to rank 126 in 2012 - a jump of 44 ranks in one single year[102]. The reforms that have been carried out successfully by Bhutan during recent years are paving the way for a more competitive economy: the country's ranking in the category "overall ease of doing business" has moved steadily upwards, from 176 out of 183 countries in 2010 to 146 in 2011 and 142 in 2012. A word of caution is needed, however, as Bhutan's results are still far from those of good performers in South Asia such as the Maldives, Nepal and Bangladesh. These countries have undertaken more extensive reforms, and at a faster rate, than Bhutan, thereby further increasing their gains in efficiency and competitiveness.

101 *World Bank 2010, Bhutan Investment Climate Assessment Report. The survey of Bhutanese enterprises took place in 2009.*

102 *World Bank 2011, Doing Business 2012*

Table 8.1 Ranking of "overall ease of doing business" in Bhutan and comparator countries

Maldives	79
Nepal	107
Regional average South Asia	117
Bangladesh	122
India	132
Bhutan	142
Afghanistan	160

Source: World Bank 2011, Doing Business 2012

As shown in Chapters V and VI of the present report, firms in Bhutan are still burdened by heavy regulations. They are also faced with a mass of complex and unclear information concerning the licenses and multiple authorizations that must be obtained in order to operate a business. Some licenses are very difficult to obtain because of stringent environmental requirements. There have been many achievements during the last three years; however, more progress is needed in order for the country to reach a level that is similar to, or better than, the level of other countries of South Asia.

This chapter will focus on the private sector and on some major constraints as perceived by the business community: (i) difficulties in accessing financing, (ii) the labour shortage, and (iii) the insufficient quality of the workforce. It will present the opinions and perceptions of the entrepreneurs who exchanged views with the DTIS mission. A review of the RGoB's policies will serve as a contextual frame. Finally, a number of trade opportunities will be explored. Aspects covered include good practice and innovations in marketing, design, and packaging; branding; green and social entrepreneurship; and the need to position products with added value rather than trying to export in bulk to countries such as India, where production factors and finished products are cheaper.

8.1. Bottlenecks as perceived by the private sector and foreign investors

8.1.1. Access to credit

The item "access to finance" used to be a major concern expressed by entrepreneurs, as reflected by Bhutan's rank in the last 10th decile of 183 countries (Doing Business, 2011). Following reforms implemented with success, Bhutan now ranks 126th in the 2012 edition of Doing Business. However, to our surprise, the interviewees met by the DTIS mission still consider that access to finance is a major concern. The policy reforms implemented by Bhutan over the past few years are summarized below, followed by an assessment of the continued difficulties in accessing finance as expressed by Bhutanese entrepreneurs.

New policies implemented by the RoGB in order to improve access to finance:

- Authorizing the establishment of two news banks in order to increase competition between banks.
- Facilitating the access of micro-enterprises to finance: the Bhutan Development Bank Ltd. provides collateral free loans to micro-entrepreneurs. The cap for these is Nu 1,000,000, or about $22,000.
- Establishing a Credit Bureau that provides a robust source of information about the credit history of potential borrowers. Sharing information among

the banks will create a level playing field, and the degree of confidence between banks and their customers should improve.

However, despite these reforms, borrowing money is still a problem according to the interviewees, as banks extend credit only on collaterals of land and buildings, without recognizing the value of receivables, inventory, export management capability, or experience. For example, for a loan of Nu 1 million, the collaterals can be in the region of Nu 2.5 million. Bhutan therefore has some of the most stringent conditions for collateral in the world. Moreover, interest rates charged by banks are high, averaging a rate of 12 percent for industrial and commercial loans.

According to the representatives of the banking industry met by the DTIS mission, the major constraints for lending are that often potential borrowers do not have their financial statements in order and/or that the quality of their business plans is poor. The BCCI could provide training for SMEs to help them to prepare business plans. It also seems that the capacity of the banking industry to assess SMEs' business plans should be strengthened and that the relative weight of variables used to assess the viability of loans should be revised.

8.1.2. Quality and availability of manpower

The labour force currently stands at 331,900, with 320,900 people employed. The unemployment rate was 4 percent in 2008, but this figure is as high as 13 percent for young people. The latter often have a diploma in general studies and are not willing to take a vocational job.

According to the ICA 2009 survey, most sectors in Bhutan experience a labour shortage. The solution so far has been to hire foreign workers from the neighbouring countries, mostly India. This is especially the case in manufacturing industries and construction firms. Foreign workers make up one fifth or more of all workers in half of the enterprises that participated in the ICA survey. The average cost of labour in Bhutan is much higher than in neighbouring countries; for example, it is 2.5 times higher than in Bangladesh. According to the ICA report, this difference is offset by the higher productivity of Bhutanese workers, especially in services[103]. This argument is difficult to accept, however, since in the case of a comparison with Bangladeshi workers, the unit labour cost in Bangladesh is half that of Bhutan, which would mean that labour productivity should be five times higher in Bhutan than in Bangladesh. Another factor countering the argument developed in the ICA report is that during the DTIS interviews, the entrepreneurs did not echo the view that productivity is higher in Bhutan. On the contrary, several complained of a "local inadequately skilled labour force" and raised issues about the quality of education in Bhutan, including a mismatch between the output of the educational sector and the needs of the economy.

In order to maintain, and if possible increase, Bhutan's competitiveness in relation to its comparators, the labour force needs to be better trained. Efforts are needed to continue to improve the quality of education, notably through building connections between colleges and the private sector. For example, collaboration could involve inviting guest

103 *World Bank 2010, Investment Climate Assessment*

lecturers from the private sector to speak in educational institutions, and providing internships for students in enterprises. The intake capacity of the country's education system should also increase, especially in engineering and business at the university level, and in the vocational training institutes. In this respect, the development of private training institutes, especially in IT, is promising. The Government of Bhutan is fully aware of the importance of entrepreneurship for Bhutan's economic development. According to the Minister of Labour and Human Resources, the Entrepreneurship Promotion programme is "the flagship programme of the ministry". Over the last two years (2009-2010), 440 people have been trained and 94 have started their own business, although none of these is in the export business. There is an increasing demand for this programme. Becoming an entrepreneur is perceived less and less as a back-up plan and more and more as a real career to follow. This programme needs to be enhanced, especially by the inclusion of an export component.

Box 8.1. Entrepreneurship Promotion Programme at the MoLHR

This programme comprises two workshops:

- A business awareness workshop (2-3 days). More than 80% of trainees are traders/retailers. The workshop is designed for traders who have significant financial resources and shows them how to move into the field of services or manufacturing.

- A business opportunity workshop (2-3 days). This workshop teaches how to identify business opportunities in the country.

In the Compact signed by the Minister of MoLHR, the number of VET graduates is targeted to increase from 500 to 6,000, and the rate of employment to increase from 50 to 80 percent.

8.1.3. Foreign investors' perceptions

The cap on employing a foreign work force. Bhutan's labour shortage has been recognized by the new FDI policy, which allows foreign workers to be employed by new enterprises, but only for the first five years of operation. After five years, the ratio of expatriates to Bhutanese employers must be reduced from 5 to 1. This figure seems stringent in view of the endemic labour shortage in the Bhutanese labour market.

Profit repatriation. Profit can only be repatriated in the currency of export earnings. Therefore a foreign company that earns rupees can only repatriate rupees. The problem is that Indian rupees are currently not convertible.

Foreigners' mobility within Bhutan. Visas are issued for whole country, but route permits are required to visit different locations within the country. Bhutanese visas are issued only for one place at a time. A foreign investor who wishes to travel to another location in the country needs to obtain a new route permit. In other terms, foreigners face internal borders with internal check points.

8.1.4. Transportation issues

An analysis of the bottlenecks created by transportation problems is to be found in Chapter VI of the present document, as well as possible solutions, showing notably how the dry port initiative, as well as improvement in the management of the existing corridors to the sea ports, could reduce the cost and time spent to bring cargo to Bhutan or to export Bhutanese goods.

8.2. Government policies

Cottage and small industries (CSIs) are an important driver for employment, growth and innovation. MSMEs are important because they tend to provide pro-poor employment opportunities. As for SMEs, small companies have several advantages over larger enterprises: they tend to be more innovative; the start-up capital requirements and operating costs are much lower; and employment in this sector is often not subject to as many formal requirements in terms of education and experience. On the other hand, SMEs face challenges in achieving economies of scale. They also experience difficulty in accessing the finance needed to start, operate or grow, and in obtaining professional services for technology adaptation, marketing, accounting, and so on. Larger SMEs tend to be more adaptable and able to innovate, which will be essential for taking advantage of new opportunities and creating competitive products and services for Bhutan's domestic and export market.

In order to encourage new enterprises to help drive economic growth and employment, the EDP contains a number of concessions and mechanisms for support, ranging from training subsidies to free land and structures and a variety of tax holidays. A simplified registration bill is being prepared for CSIs. Improved regulations in 2006 introduced a "green channel/red channel system" designed to simplify the launching procedure for SMEs and non-polluting non-harmful industries. Under this system, all companies in non-controversial fields are able to start operations on a "green light" track, while potentially harmful and polluting industries are subject to more rigorous controls. According to the industrial classification of enterprises, cottage enterprises are those with investment below Nu 1,000,000 ($22,000), small are those between 1,000,000 and 10,000,000 Nu ($22,000 to $220,000), medium between Nu 10,000,000 and Nu 100,000,000 ($220,000 to $2,198,000) and large above Nu 100,000,000 ($2,198,000)[104].

Most of the active programmes in support of CSIs are geared towards supporting small and cottage industries. For example, it is now possible to obtain a license to operate online. For micro-enterprises, i.e. those with an investment of under Nu 1,000,000, the starting procedure was significantly simplified in 2006. Cottage enterprises need only to register; they do not require licenses, do not owe fees, and do not need to pay renewal fees. There is also a SME-friendly system for intellectual property (IP) in Bhutan, by which anybody can apply locally for international trademarks. However, awareness of this process and its related benefits may be low among SMEs.

A range of support is available to CSIs through a variety of government programmes. As part of the Government to Citizen Project, there is a plan to set up community centres at the local level in order to supplement services provided

104 *Using the exchange rate of 1$ = Nu 45.5, rounded to the nearest thousand*

by the six regional trade offices. Work is also being undertaken at the village level on infrastructure development at production sites for storing and processing perishables. Some project sites are even developing micro-processing and basic dry storage units. Lemon grass oil distillation, for example, is carried out on the harvest sites. The Department of Trade has export promotion facilities that help Bhutanese exporters to participate in trade fairs, and supplies exporters and producers with certificates of origin. The DoT also provides training and knowledge on matters such as costing, pricing, documentation and procedures. However, programmes to provide support to CSIs tend to focus on smaller SMEs and are sector-specific.

While encouraging cottage enterprises is valuable and vital, it is also important to devote resources to SMEs as there may be some missed opportunities if larger SMEs find it comparatively difficult to start and grow. The advantage of larger SMEs is that they are better able to capture economies of scale and are likely to be involved in fields that micro and cottage enterprises might miss. Micro-enterprises are also seen by some stakeholders as a suboptimal norm for small enterprises; for example, the Bhutan Association of Women Entrepreneurs (BAOWE) considers that women find themselves "stuck" in cottage industries which allow them little voice or presence in policy discourse. Accordingly, BAOWE's vision is that women need to be empowered beyond the sphere of micro-industry.

8.3. Development perspectives for the private sector

8.3.1. Capturing the mark-up on exports

Numerous sectors in Bhutan are characterized by "passive exports", i.e. local companies do not search for clients themselves but rely instead on foreign middlemen. For instance, the export of potatoes, apples, mandarins and cardamoms is controlled by Indians traders: they travel far inside Bhutan to participate in auctions before taking the produce back to India, where it is re-sold to another operator. The mark-up is confiscated by the first intermediary. Throughout this process there are jobs that could be taken by Bhutanese traders. There are some signs of change: for example, the Bhutanese company that exports red rice to USA plans to become a more active exporter, to develop its own packaging and to sell its products abroad directly. However in most sectors, exporters lack support services in the form of market information, the setting up of national quality and grading standards, laboratory facilities, training facilities, etc. In many sectors, one of the major obstacles to export and the growth of export earnings is the inability of companies to process commodities, and thus to add value and diversify products.

8.3.2. Clustering industries and promoting linkages between enterprises

Owing to Bhutan's space problem and the small size of Bhutanese companies, industrial policy needs to promote the clustering of industries. The areas in which it is possible to set up factories in Bhutan are limited because of the country's rugged and mountainous geography. Bhutan's industrial development has so far essentially taken place around Thimphu and Phuentsholing. The government has created industrial estates in Bjemina (Thimphu), Phuentsholing and Pasakha. The Pasakha Industrial Estate, which is located in a suburb of Phuentsholing, is the largest: with 18 industries currently operating there and

an average of 100 employees per company, it employs about 2,100 people. Other estates are at different stages of allotment, construction, or a change in activity.

Phuentsholing is situated on the border with India and represents the gateway for the 20 districts of Bhutan. For the time being, there is only one gate at the border, although a second gate is planned in the near future for heavy vehicles that can proceed directly to Pasakha. Exporting industries are concentrated at this point. However the town is still more a platform for imports than for exports.

The Phuensholing and Pasakha industrial estates have almost reached full capacity, and there is very limited space left in which to establish new companies for exports. The objective of the government is to create a southern continuous industrial belt (economic zone). As a next step, industrial estates are planned along the southern border in Gelephu, Samtse and Samdrup Jongkhar, as well as to the east, in Mongar.

8.3.3. High-value agriculture, entrepreneurship and economies of scale

The main cash crops exported by Bhutan are mandarins, potatoes, cardamoms, and apples. These provide only seasonal incomes. According to the NSB 2009, the Ministry of Agriculture and Forests has maintained three basic objectives over successive five-year plans: (i) to conserve the environment, (ii) to enhance rural income, and (iii) to attain self-reliance in cereals and essential oil crops. Two additional objectives are part of the new vision of agriculture: the development of commercial farming and that of organic farming. The government is offering tax incentives to achieve these two objectives: a five-year tax break for farmers or companies that engage in commercial farming and an additional five-year tax break for cultivating organic produce.

Table 8.2 Main exported products in agriculture and forestry (2010)

Product	Export value in million dollars	Main market destinations
Mandarins	7.2	1. Bangladesh 2. India
Potatoes	4.3-5.9	1. India
Particle board	5.7	1. India
Cardamoms	4.8	1. India 2. Bangladesh
Apples	2.5	1. Bangladesh 2. India
Cordyceps	1	1. Hong Kong 2. Taiwan
Red rice	0.14	1. USA 2. Switzerland
Matsutake	0.07	1. Japan 2. India

Source: Bhutan Trade Statistics

Despite these incentives, there are challenges both for commercial and for organic farming. According to some of the entrepreneurs interviewed by the DTIS mission, commercial farms will have difficulty in finding the necessary land. As for organic produce, the national strategy is not yet ready. Organic certification is technical and expensive. A very small amount of pesticides is enough to disqualify a crop; even if only a few farmers have used pesticides, the whole production can be disqualified. Products that grow in the wild, such as mushrooms, are of course easier to certify as organic. However, the shift to organic produce will take time to implement and will be very gradual. The major question is whether the farmers will capture the premium. The policy shift towards "all organic" also prevents the country from benefiting from the "green revolution" that is being experienced by most developing countries, as without pesticides and fertilizers Bhutan's agriculture will necessarily remain low yield.

A very interesting development is that of entrepreneur-led agricultural innovations. Many discussions have revolved around the challenges that face Bhutan in attempting to achieve economies of scale in agriculture. However it is precisely in this area that there are examples of entrepreneurs who are leading the way for the development of new high-value agricultural products. Currently, there are two enterprises that develop coffee and hazelnut cultivation, respectively, in Bhutan:

- The development of the first large-scale coffee plantation is being driven and financed by a local Bhutanese entrepreneur who sees an opportunity in organic agriculture. The Samden group originally specialized in auto parts, building a multifaceted business with retained earnings that were significant enough to allow them to branch out into agriculture according to a market opportunity they had identified. Three hundred acres have been approved for planting, tree nurseries have been established and farmer groups have started receiving training in coffee cultivation and the planting of seedlings. The programme is established within the framework of the Economic Development Policy and constitutes environmental rehabilitation as the coffee trees are largely being planted on degraded land. The MoAF is formalizing the Memorandum of Understanding (MoU) that the plantation will use to cooperate with local farmers involved. The first coffee crop is expected in 2013. The objective is to produce 800 tons a year, with the aim of expanding to a second location. The coffee will come from high-quality Arabica beans using well known strains, and the initial marketing plan is largely aimed at trade in green (unroasted) beans to be sold to India.
- In another comparable case, a foreign entrepreneur identified a market opportunity, then financed and pursued its development: Mountain Hazelnut Venture Limited, a Hong Kong Company run by an American entrepreneur, is financing the planting of hazelnut trees and guaranteeing the purchase of produce according to an agreed price structure. According to the company website, "hazelnuts are second only to almonds in global value and continue to expand as consumers increasingly

turn towards nutritious foods. Bhutan is ideally suited to growing top quality nuts, with clean Himalayan water and thousands of dedicated farmers." This partnership represents Bhutan's first and only 100 percent foreign direct investment, financed by IFC.

- These two projects are a clear example of the way in which some entrepreneurs have been able to leverage the opportunities they have identified to develop large-scale commercial projects. Both projects have significant potential to improve local farmers' incomes in a sustainable and market-led way. These examples, and the experience acquired by the government in working with these entrepreneurs, should help to define how to encourage more of this type of venture in the future.

8.3.4. Moving up the value chain to innovative finished products

In order to move up the value chain, it will be important to promote innovative finished products from the agricultural, craft and other materials being produced in Bhutan. Instead of selling these in raw form, whether certified or not, there is scope for capturing more value by creating finished, branded products. A range of entities in Bhutan is already active in creating finished branded products and some companies are beginning to capture their potential value.

One of these companies is Bio Bhutan, which produces and markets products from wild and cultivated organic lemon grass, turmeric and ginger spice in a range of herbal teas and other products. Bio Bhutan began as a start-up in 2005, helped by a loan from Helvetas (Swiss Association for International Cooperation). The company also received technical assistance in product and packaging design and sourcing. One of the best examples of its results is its popular line of lemon grass sprays. The packaging is sophisticated and communicates brand identity by evoking mountains and organic produce while positioning the product geographically through the use of Bhutan in the brand name.

Another example of branding success is the commercial line of products developed by Menjong Sorig Pharmaceuticals, a unit of the Institute of Traditional Medicine Services in the Ministry of Health. This group is petitioning for administrative independence similar to that of APIC in order to pay for overtime and meet deadlines, as well as to have more flexibility to expand, improve and market product lines. The line of teas being produced by the Menjong Sorig company has also benefited from the advice of an external consultant in the area of design and product development. The packaging is attractive, with three clear brand identification features: a product that comes from Bhutan, is socially responsible, and is good for health. The title is simple – "Safflower & Cinnamon Tea" – evoking flowers that sound pleasant and harmonious. One side of the packet describes the socially responsible production of the tea, another, the health benefits of the flowers included in the packet, while a third indicates the sell-by date and reproduces the Menjong Sorig logo.

The success of Menjong Sorig products contrasts with other examples of local teas, where packaging is developed in-house and where design and product development knowledge is less professional. For example,

the Bio Herbal Tea packet developed in-house at Bio Bhutan uses a much lower quality of lemon grass oil as well as inferior design and packaging that do not promote brand identification. It is hard to understand what type of tea is in the box, the colors are distracting and clash with the original Bio Bhutan brand colour identity, while only the scientific names of the plants are listed – a source of confusion for customers who do not have sufficient botanical knowledge.

For small business such as those above, there is a significant need for affordable professional services in design, packaging and product development as well as for marketing expertise in order to refine product lines.

Producing only basically finished products is not making good use of Bhutan's competitive advantage. Bhutanese agricultural produce is much more expensive than produce from neighbouring India, so that in order to make a viable product from more expensive produce, value addition is essential. Bhutan Agro is a typical example of a business with the potential to develop. Currently its processing facility in Thimphu adds little value to basic products. The company produces jams, juices, bottled water and other products from Bhutanese produce which are sold both locally and in India, where they are targeted at Indian mass market consumption. This is a sub-optimal marketing strategy, given the more expensive Bhutanese production costs and the boutique size of the production facility.

While a number of groups are engaged in production that can lead to higher added value, there are several hurdles. Chief among these are a lack of confidence and inadequate marketing knowledge. Producers prefer practices that they are used to and that do not require much knowledge. This creates a preference for commodities trading, especially when producers are struggling to create demand for their finished products. This situation can be seen even in successful businesses such as those described above: despite their achievements, a bolder entrepreneurial initiative is needed for companies such as the Samden group, Bio Bhutan and Bhutan Agro. For example, initial plans by the Samden group for their coffee plantation are focused on the commodities trading of green beans that are not fully processed. Similarly, despite a strong finished product for the Bio Bhutan lemon grass spray, Bio Bhutan sells most of its essential oils in bulk. This indicates that Bio Bhutan needs a marketing partner to promote the unique features of its product; the company also needs to recruit staff with experience in product development, marketing and packaging design in order to create other product offerings once market channels are established. As for Bhutan Agro, the company can boast a factory that is well run and has a good history of pro-poor, socially responsible and local buying practices; however the business does not experiment with or expand on these strengths. Marketing campaigns and positioning exercises have the potential to create new markets for a product. Bhutan needs to support further innovation and development in this area.

8.3.5. National and firm-level branding and marketing

Official policy discourse recognizes the importance of government support for national branding and the provision of facilities for marketing national produce. However there is little discussion of enterprise-level branding

and marketing strategy.

At the country level, there is a commitment to innovate in terms of developing Bhutan branding, as well as to develop a credible high-quality organic certification programme. To improve market channels and increase the value of potential export products such as crafts and agricultural goods, a range of possible approaches is being promoted. These include creating new marketing platforms or strengthening existing ones; developing community branding; encouraging and facilitating certification (organic, fair trade and a number of new smaller labels); and reinforcing the use of geographical indication, trademarks and company-level branding. Marketing platforms in turn can be provided by branded retailers, crafts emporiums, trade shows, hotel and airport tourist shops, e-commerce and a range of other venues.

Bhutan's present approach towards developing and making use of a nation-based brand is innovative and is potentially a source of strong competitive advantage for Bhutanese products and services. The success of this approach is already evidenced by the strength of the tourism sector and popularized images of Bhutan as a pristine Himalayan kingdom with remarkable monasteries and a culture of happiness.

However, there is also scope for promoting branding development at the industry and firm level. Individual firms are traditionally the source of innovation in marketing and branding. In India, private enterprises such as Fabindia and Anoukhi have led the way in promoting India craft and fabric for fashion and home ware. These enterprises have developed strong branding and identity as well as a wide network of retail shops across India. Each enterprise stands for a particular look, feel and corporate social responsibility culture, which is incorporated into the story of their brand and products. Branding at the firm level can also be supported by Intellectual Property tools such as trademarking and patenting. However at the present time there is less focus on branded marketing platforms by individual companies in Bhutan. It is unclear whether this is due to lack of entrepreneurial initiative or whether the focus on nation-level branding is not leaving much room for the development of firm-level branding and marketing.

8.3.6. Training needs for producers' groups of potential "Brand Bhutan" products

Training needs for Bhutan Brand products will depend on the product in question. Needs will vary according to the sector concerned, whether or not the product is finished and branded, and whether it is new to Bhutan or is already being produced. For traditional crafts and basically-processed agricultural goods, training needs are both varied and sector-specific. The training needs for positioning value-added products, whether at country or individual firm level, are considerable. For example, Fabindia's proposal for the training needed in order to launch Bhutan handicraft and agricultural corners in their Indian retail shops sets out, in detail, an extremely wide range of requirements: the setting up of a Design Development Centre (DDC) for wood, textile and jewelry products; introducing laser-cutting technology for woodcraft; and technical expertise in processing and developing packaged products.

Working with branded marketing platforms,

or encouraging similar indigenous enterprises, has an advantage in terms of letting the training needs be defined by the market. The enterprise interacts more closely with the market and has more empirical knowledge of what customers wish to buy. Training needs as defined by the enterprise are more likely to be targeted and efficient. This provides some scope for public/private partnerships, such as the proposed cooperation with Fabindia, and cooperation between the MoAF and entrepreneurs to begin the cultivation of coffee and hazelnuts, as discussed above in more detail in section 8.3.3.

8.3.7. GNH-friendly livelihoods: social enterprise and green jobs

The Gross National Happiness philosophy encourages projects, programmes and policies that would contribute towards well-being and happiness. While this approach does not preclude private enterprise, it also does not provide unquestioning support for it. The Government's GNH philosophy as such is more compatible with increasingly popular concepts such as social enterprise and green jobs.

There are various definitions for the term "social enterprise", the most usual being that of a company that aims to achieve more than "just" profit making. Social enterprises are therefore run according to a double or triple bottom line that includes social and/or environmental achievement as well as financial gain. Today, social enterprise is gaining traction as a business model in both developing and developed economies. The potential for indigenous Bhutanese social enterprise is strong, as the cultural platform and government strategy are aligned with this concept.

Similarly, there is significant scope for green jobs in Bhutan, as the GNH philosophy encourages the growth of areas that would create these kinds of jobs. The GNH philosophy places emphasis on preserving and protecting the natural environment and promoting livelihoods in areas that do not have known adverse effects on the environment. The definition of green jobs used for this discussion is that of ILO/UNEP: "Work in agriculture, manufacture, research and development (R&D), administration, and services that substantially contribute to preserving or restoring the quality of the environment"[105]. Jobs that would be included in this definition are those that: (i) protect ecosystems and biodiversity, (ii) reduce energy, materials and water consumption through high-efficiency strategies, (iii) de-carbonize the economy, and (iv) minimize or avoid generation of waste and pollution[106].

From this point of view, it may be noted that many jobs that currently exist in Bhutan and are targeted for increase in the future may be categorized as "green jobs". These include work in the hydropower sector as well as in organic farming, recycling, and ecotourism. Hydropower makes up a huge proportion of the Bhutanese economy and contributes about 40 percent of government revenue. The Druk Green Power Corporation , for example, employs 1700 people; this number is planned to rise to 6000 for the operation and maintenance of hydropower plants, and the company will hire a further 60,000 people for the construction phase. Taking this considerable job-creation

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105 *UNEP 2008, Green Jobs: Towards decent work in a sustainable, low carbon world, UNEP/ILO/IOE/ITUC, p.3*

106 *Ibid, p.35*

factor into account would reinforce the social mission of the hydropower sector. Apart from large, organized projects there is also scope for encouraging and supporting more enterprises that have social and/or green leanings.

Box 8.2 Greener Way: an environmental social enterprise

The lack of eco-friendly waste management poses a threat to Bhutan's reputation as a natural and pristine "happy country". Currently, waste management in Bhutan is in a nascent phase. There is still open dumping of solid waste along with landfills, and communities are still not sensitized to the problems of littering. Some waste is sold to India to be processed in Indian recycling plants. Sweepers in cities commonly burn plastics.

Greener Way was founded in 2010 to preserve the environment in the face of rapid development, for a "clean, green Bhutan". Its business proposition is to process recyclable paper and plastic waste for export to India. Concerning plastics, the company pays for collected recyclable waste and processes it into plastic and paper products that are then exported to India for further processing. It also provides clean-up services and waste collection, and participates in public awareness campaigns.

Greener Way plans to build a transfer station for waste management in Thimphu in 2012, benefiting from a Government lease of nominally priced land. One of the capabilities of this plant would be to recycle paper into finished products to be sold in Bhutan. Greener Way aims to privatize waste management to make it a profitable business while at the same time providing more effective protection for the environment. It is effectively making money through greening waste management while producing an export product that is a higher step up the value chain from its previous policy of only exporting waste with recyclable content. Greener Way's main challenge is to sensitize and educate the general public on waste management practices, which is a new topic for Bhutan.

Source: DTIS mission, August 2011

Incorporating terms such as "social enterprise" and "green jobs" into the policy discourse will have the advantage of reinforcing commitment to GNH, while at the same time encouraging social and environmental positioning by giving Bhutan the opportunity to define itself from a marketing and branding perspective. The country's plan to become "100 percent organic" by 2020 is similarly useful. The cultivation of organic produce is a natural fit with Bhutan's positioning and also reinforces its reputation as a country that is happy, natural, and ecologically and traditionally intact. Bhutan could also position itself as the home of the largest proportion of social enterprises, with a nameable percentage of green jobs.

8.3.8. Opportunities from indigenous intellectual property

Other opportunities may arise from building on local traditional knowledge and traditional design. Bhutan possesses vast resources of

traditional knowledge in areas ranging from medicinal plants to the design features of Kira patterns and Bhutanese Thanka painting. Initiatives such as the plan to create catalogues of this knowledge at the Intellectual Property Division are an important step to protect and support local people's right to benefit from this knowledge.

Creating catalogues is important, but there is also scope for encouraging entrepreneurial or even government-led efforts to connect this knowledge with economic endeavours. Examples could be:

- Bio-prospecting and drug discovery. This would be facilitated by the existing body of traditional knowledge of the uses of various plants for healing purposes.
- Developing the use of motifs and patterns from traditional textiles. At present these are commonly used in fashion design to inspire new looks, or in packaging design that aims to create a feeling of the place from which the pattern or imagery originates. Further development could include branding exercises at the firm level for Bhutanese products to incorporate these motifs using a similar approach.

9 TOWARDS A MORE INCLUSIVE TOURISM

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CHAPTER 9. TOWARDS A MORE INCLUSIVE TOURISM

Introduction

While the volume of Bhutan's tourism industry is still small, it is highly significant in terms of its current contribution to GDP, its "tremendous potential for future expansion" and last but not least, its ability to position and raise the international profile of "Brand Bhutan" and the country's national identity in the global market place[107].

In the 10th Five-Year Plan, the expansion of tourism is a major pillar of the national growth and poverty reduction strategy. An ambitious objective of 100,000 tourists per year is set for 2012, and while different options are outlined to increase the number of tourists, diversify products and improve infrastructure and transportation, the Plan also places significant emphasis upon increasing community participation and providing opportunities to deliver benefits to rural communities.

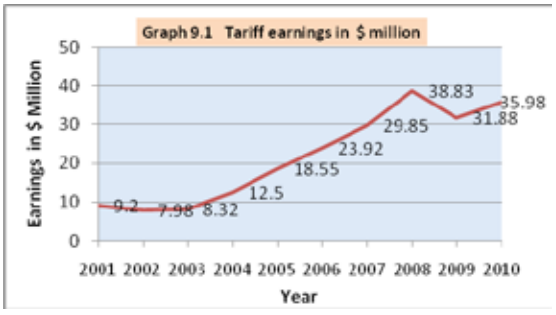
After an overview of the development of the tourism market during the period 2002-2010, this chapter describes Bhutan's unique tariff policy, its advantages and weaknesses. This is followed by a review of the national tourism policy, its inflexion towards more equitable and inclusive forms of tourism, and the results achieved. The last part of the chapter explores different avenues to facilitate and support pro-poor tourism. These include shaping new policy tools; developing community-based products; strengthening supply chains; enhancing cross-sector coordination; and positioning Bhutan as a carbon neutral destination.

107 *RMA 2011, Annual Report 2009/10*

9.1. Development of the tourism market 2002-2010

9.1.1. Income

In 2010 Bhutan earned just under $36 million through the tourism tariff[108]. Figure 9.1 illustrates the growth in tariff earnings since 2002, which peaked at $38.83 million in 2008 and fell back in 2009, largely due to the global financial crisis.



In addition to earnings from the tariff, the sector generates income through spending on air-tickets, stays in 4 and 5-star hotels, and out-of-pocket expenses such as handicrafts, souvenirs, etc. Income is also generated through regional tourists, mainly Indian, who are not required to purchase the all-inclusive tariff. In 2010, the Tourism Council of Bhutan (TCB) estimated that these additional sources earned a further $54 million; if this figure is taken into account, a conservative estimate for the sector total would then total $89.69 million[109]. With a

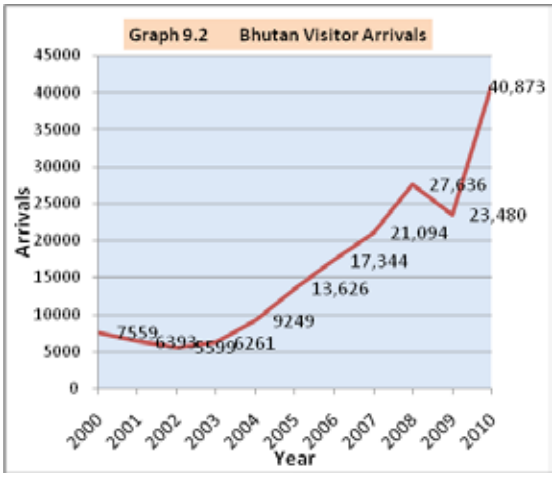
108 *The Tourism Council of Bhutan prepares an excellent compendium of statistics in its annual Bhutan Tourism Monitor (BTM). All data presented in this report are for 2010 and are from BTM 2010, unless otherwise stated.*

109 *This figure excludes earnings from business and official as well as the regional "low-end" visitors.*

2010 annual real GDP of $1.483 billion, tourism therefore represents a large slice of total GDP. Section 9.4.1 below examines the strengths and weaknesses of the methodology used to calculate tourism's contribution to GDP, and makes recommendations to refine and present policy-oriented data.

9.1.2. Tourist arrivals

Turning to visitor numbers and an analysis of market data, Graph 9.2 depicts the growth in Bhutan's international visitor arrivals from 7,559 in 2000 to 40,873 in 2010. The considerable jump achieved between 2009 and 2010 is partly explained by the decision to include Indian "high spend" arrivals for the first time.



Out of the 40,873 international visitors in 2010, 27,196 visitors were from the wider international market and constituted the tariff-paying component of the overall market. The remaining 13,677 was made up of three main categories: high-spending regional (mainly Indian) visitors, MICE tourists, and visitors on familiarization tours[110].

Tariff-paying tourists are the RGoB's primary target market for its unique tourism brand. As shown below in Graph 9.3, the USA, Japan, Germany, UK and China make up the top five source markets for the "high-yield low-impact" market.

Significantly, however, and as shown in Table 9.1 - which illustrates total bed nights, average length of stay and an estimate of the total tariff yield by nationality - China falls to 10th place in the league of most lucrative markets[111]. This result clearly illustrates that total bed nights (or yield) should be used as the definitive indicator to measure industry performance and the positioning of source markets, rather than the number of visitor arrivals. This said, it is also noted that compared to 2009, Chinese arrivals increased by 20.26 percent in 2010. Due to the performance of the Chinese economy and the volume of tourists on the country's doorstep, this sector constitutes one of the fastest growing and most significant future markets.

110 *The TCB defines high-spending regional visitors as those who arrive by air rather than land. MICE tourism refers to visitors arriving for meetings, incentives, conferences and exhibitions. Familiarization tours are typically undertaken by journalists or tour company representatives sampling a tour itinerary or product.*

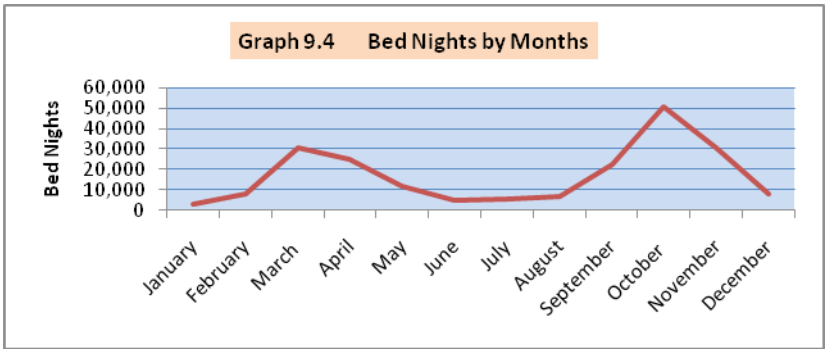
111 *Estimate calculated on the basis of tariff yield per night at $200 per night – true yield would be higher when taking into account small group surcharges, stays in 4 & 5 star hotels and out of pocket expenses.*

Table 9.1 Total bed nights, average length of stay and estimated tariff yield

Country / Market	Total bed nights	Average length of stay (nights)	Estimated yield @ $200 per night (total $1,000)
USA	43,666	8.4	8,733
Germany	20,040	8.9	4,008
UK	16,400	9.3	3,280
Japan	15,743	5.3	1,149
France	13,175	9.1	2,635
Australia	11,606	8.8	2,321
Netherlands	8,785	10.4	1,752
Italy	8,327	8.1	1,665
Switzerland	8,244	10.4	1,649
China	7,354	4.9	1,471

9.1.3. Seasonality: a key issue

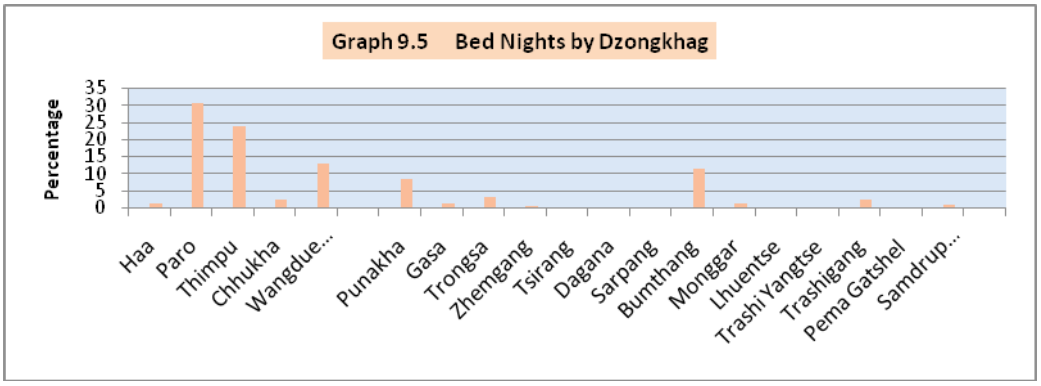
Seasonality is a constraint for tourism earnings and potential in many destinations, and Bhutan is no exception. The high dependency upon cultural tourism, and the strong appeal of Thimphu and Paro Teshechu, are largely responsible for the seasonal peaks depicted in graph 9.4, which shows that the vast majority of arrivals and bed nights are compacted into the months of March, April, May, and September, October, November.



9.1.4. Product and geographical spread

The TCB estimates that just under 90 percent of tariff-paying arrivals are primarily cultural tourists. In 2010, a total of 2,753 visitors were trekking tourists (10.13 percent of the total); of these, about 50 percent joined either the Jhomolhari or Drukpath Treks. Eight other treks attracted between 60 and 243 visitors in 2010, illustrating the low volume of tourists entering rural areas. Reinforcing this point, Figure 9.5 shows the distribution of bed nights across Bhutan's 20 Dzongkhags (from the west to the east of the country). As can be seen, Paro and Thimpu attract over 50 percent of all bed

nights, while about 88 percent of all bed nights are spread over the five Dzongkhags of Paro, Thimphu, Wangde Phodrang, Punakha and Bumthang. In other words, tourism is largely focused in the west of the country and the remaining 14 Dzongkhags receive less than 13 percent of all bed nights.



9.1.5. Access to Bhutan

Access is a key variable influencing the development of tourism. Bhutan currently has only one international airport, at Paro in the far west of the country, and three road access points at Phuentsholing, Samdrup Jongkhar and Gelephu. The vast majority of tariff-paying tourists therefore enter and leave the country via Paro, which largely explains the concentration of bed nights around Paro and Thimphu[112]. Despite the introduction of larger aircraft in 2004, and recent adjustments to schedules and routings, most of the tour operators and 5-star hoteliers interviewed by the DTIS mission noted that difficulties associated with ticketing and seat availability are the biggest constraint to business growth.

The opening of three domestic airports – at Yongphula in the east, Bumthang in the centre and Gelephu in the south – and the introduction of new Druk air flights and aircraft as well as Tashi Air, will improve access to and around the country. The Yongphula and Bumthang airports opened in late 2011. Although each of these services will have a dramatic impact on the nation's tourism industry, it should be noted that their full effect is uncertain. An increase in international flights can be expected to result in a growth in tourist arrivals, and the opening of an airport in Yongphula (Trashigang) can be expected to increase visitors to the east. However, some observers argue that fewer visitors will spend time travelling overland, which may result in a decrease in the average length of stay and thus a drop in income and employment opportunities[113].

9.2. Bhutan's unique tariff policy

Bhutan's tourism product is unique, due to GNH and its "high-yield low-impact" approach. The country has more than 70% forest cover, and a greater percentage of its

112 *About 85% of all visitors enter and leave via Paro, about 37% via Bangkok, 20-22% via Kathmandu and 17% via Delhi.*

113 *This possibility suggests that attention needs to be given to both developing and strengthening products and services: (i) along transit corridors and circuits; and (ii) around key air-hubs – as different tourist types will inevitably demand a different mix of experiences.*

ecosystems intact, than any other nation on the planet. It is also the only Buddhist kingdom in the world.

Bhutan's tourism is also unique because of the tariff and royalty policy adopted by the RGoB, whereby each visitor from the wider international market is required to book through a tour agent and pay an up-front all-inclusive fee. The all-inclusive tariff includes accommodation (except stays in 4 and 5 star hotels), food, transport around Bhutan, a guide and activities such as trekking. It is a minimum base payment; visitors can pay extra for stays in 4 and 5 star hotels and special personalized activities.

In addition to paying the tariff, international visitors need a visa. By way of contrast visitors from India do not need a visa and enter without buying the all-inclusive tariff. This policy is not practiced anywhere else in the world. The tariff and the requirement to book through a tour operator are the key policy instrument to promote high-yield low-impact tourism.

Because international tourists are required to book all-inclusive tours, tour operators play a key role in Bhutanese tourism. The tariff system allows tour operators to capture the lion's share of tourism revenue. In 2010 there was a total of 676 licensed tour operators, but only 318 of these were operational. Sources report that about 50 local operators dominate the market, while TCB data indicate that the top twelve operators handle almost 50 percent of total tariff-paying arrivals, and the top six just under 35 percent.

Through the tariff, tour operators control the itineraries, the flow of tourists and the products. A small number of products, such as attendance at the Teschus held at Thimphu and Paro, dominate the tourism offer. This creates a difficult situation for product and destination development, especially in terms of engaging and benefiting rural communities. Firstly, as the great majority of tour groups are focused upon the Teschus, few visitors frequent rural areas. The number of visits to rural areas is generally insufficient to provide a regular or reliable income source, or a business incentive to rural households and local entrepreneurs. Secondly, many tour operators lack the market knowledge or motivation to innovate and develop new products; this in turn stifles competition and creates little if any incentive for hotels and restaurants to innovate and develop competitive offers. In particular, tour operators have shown little interest in working with rural communities, which they perceive as difficult to organize and manage, and a source of less profit. In this way the privileged 'top-down' role of tour operators serves as a barrier and disincentive for rural households and communities to engage in product development. Opportunities for rural communities to benefit from a free tourism market are therefore rare.

These issues are well known. Debate as to whether Bhutan should continue with the tariff has been rife for at least 10 years[114]. More recently, in 2005, the RGoB formally adopted a comprehensive sustainable tourism development strategy which recognized the limitations of the tariff and offered two detailed and carefully explained alternatives. However, neither of these proposals was

114 *See, for example Rogers 2002, Bhutan's Tourism Tariff: review and recommendations for change, SNV/DoT.*

adopted. Similarly, interviewees report that the McKenzie consultants who had recently worked with the TCB and the RGoB also strongly advocated abandoning the tariff. The tariff has not, however, been dropped. On the contrary, as from 2012 it will increase to $250 per day for the six-high season months, although remaining at $200 per day for the six low-season months. While most of the tour operators interviewed for the DTIS advocated keeping the tariff, most government officers interviewed recommended that only the Royalty component be retained (to maintain Bhutan's globally unique policy approach) while the tariff itself be dropped. It is clear that most observers believe that the tariff is retained due to the power and political influence of tour operators.

Given Bhutan's emerging tourism trends and practices, and the recently renewed commitment to the tariff, there is increasing onus upon tour operators to take on the responsibility of finding new ways of doing business. However it is not clear whether Bhutan's tour operators have the tools, capacity and ability to meet this need, or whether efforts they do make in this regard will be enough to satisfy the expectations of central and local governments and rural communities.

9.3. Government tourism policy

9.3.1. Policy developments and challenges

As referenced in the 10th FYP, current specific objectives for the tourism sector are to: " (i) promote Bhutan as a unique, exotic, cultural and unspoilt destination; (ii) maximize the use of resources and capacities; (iii) improve the regional and local spread of benefits; (iv) improve the quality of services; (v) develop and upgrade tourism human resources; (vi) diversify and develop new tourism products; (vii) increase community participation; (viii) broaden the base of demand; and (ix) improve infrastructure."

Consistent with the 10th FYP, the goal for the future is to develop the industry so as to maximize tourism-related income and employment opportunities for households and rural communities in provinces other than Paro and Thimphu. Yet for the reasons stated above, the current form and structure of Bhutan's tourism model are not always conducive to this goal[115]. A review of the literature provides little evidence of any direct link between tourism and poverty alleviation in Bhutan. There is therefore a need for an improved enabling policy environment with more clearly targeted regulatory frameworks, and a solid business commitment to Corporate Social Responsibility (CSR) principles and practices. The latter would be consistent with Bhutan's GNH policies.

The Plan goes on to outline implementation strategies for these objectives, with significant emphasis on increasing community participation and providing opportunities to deliver benefits to rural communities. Government representatives and key informants viewed these objectives to be important in order to provide economic development across the country and, not least, to stem a growing tide of rural-urban migration.

115 *One interviewee – a tour operator – suggested that government policy to develop forms of tourism that benefit rural communities directly contradicts the regulatory environment, which prevents this from happening.*

9.3.2. Achievements

In line with the above objectives of the 10th FYP, there have been major achievements in the areas of infrastructure, tourism facilitation and institutional development:

Infrastructure:

- Road improvements in the east and the construction of three new domestic airports.
- Ongoing hydropower projects and electrification of rural areas.
- Improved connectivity throughout the country (mobile phone and internet).
- The opening of new treks in the east.
- At least four approved 5 star hotel / resort FDI projects under construction.

Tourism facilitation

- Recently introduced RGoB on-line visa and Druk Air air-ticketing services, together with improved internet and mobile phone connectivity in all key towns.
- Introduction of credit card services and ATMs in tourist hubs.
- A hotel and guesthouse classification system, and incentives for hoteliers to upgrade hotels to a minimum 3 star standard.
- The launch of a tourism branding logo (the blue poppy) and tag-line "Happiness is a Place".
- The opening of the Royal Institute for Tourism and Hospitality (offering 2-year internationally recognized diploma level courses with specialization in either tourism or hotel management – and a mandatory 50 percent male and female annual intake).
- Opening the eastern part of the country to tourism.

Institutional development

- The drafting of a Tourism Bill setting out a framework, systems and regulations for tourism development, due to be discussed and approved by the RGoB by early 2012.
- On-going TCB financial support to the fledgling Guide Association of Bhutan and the Hotel Association of Bhutan to build capacity and professionalism in these groups.
- Evaluation of the recently opened community-based Nabji Khorphu Trek and, based upon lessons learned, the opening of the Merak Sakteng Trek in the east.
- Studies undertaken by the MoAF and NGOs to assess hotel demand for agricultural products and map out produce and service supply chains.
- TCB's collection of data profiling industry employment numbers, disaggregated by both position and gender (tour operators, hotels, restaurants, guides, Druk Air, TCB...).
- Dialogue between TCB, the MoAF's Nature, Recreation and Ecotourism Division and NGOs to set out criteria for tourism to lodges and resort in protected areas and to determine the necessary technical standards.
- The opening of new cultural festivals during non-peak months for tourists.
- TCB goal to attract 100,000 high-end international and regional arrivals by the end of 2012[116].

116 *This goal is interesting, but clarity is needed to identify target percentages for (i) the regional non-tariff paying market and (ii) tariff-paying visitors from the wider international market, not least because this*

9.3.3. Challenges and constraints

The above actions confirm that the RGoB, the TCB Secretariat and industry players are robustly and professionally setting about the further development of the tourism sector as a major pillar of the national development strategy. At the same time, however, there are a series of factors that challenge and constrain the development potential and the ability of the government and private sector to promote more equitable and inclusive forms of tourism. These factors include:

- A lack of experience and understanding of the international tourism industry and its market-oriented dynamics among national and district government line agencies and bodies.
- A lack of qualified and experienced tourism-related professionals working in both the government and private sector.
- The commercial imperative for most big and medium-sized local tour operators to conduct 'business as usual' to obtain their customer base, market share and business security; and the lack of incentives and know-how for these operators to develop alternative products and / or more equitable business models.
- Low awareness of Bhutan in the industry's global market place, together with misunderstandings about the all-inclusive tariff and the policy of booking through tour operators[117].
- The high capital costs of, and time span needed for, infrastructure improvements, and an absence of any detailed tourism investment for the destinations linked to the new airports.
- A lack of rural community exposure to tourists and the tourism industry, and an associated lack of capacity to engage in entrepreneurial activity to meet market expectations and simultaneously exploit income and employment opportunities.
- The low volume of tourists visiting rural areas which, in many scenarios, is insufficient to provide a reliable income and business incentives to households and local entrepreneurs.

This list is not intended to be exhaustive, but rather indicative of ongoing development issues. The last three points summarize particular challenges presented by the tariff policy that, as long as it remains in place, will require tailor-made solutions to meet the restrictive conditions it imposes on all stakeholders[118].

9.4. Enhancing yield and sustainability

9.4.1. Sharpening tools for policy making: tourism's contribution to GDP and district economies

Until the recent introduction of the luxury hotel market, the all-inclusive tariff system accounted for the great majority of visitor spending. The RGoB presented Bhutan's tourism earnings solely in terms of the income generated through tariff receipts. The 2010 Bhutan Tourism Monitor (BTM), for example, presents earnings generated through the tariff from 2002 to 2010 (see Figure 9.1 above). It also calculates the income received by the

will influence marketing budgets and strategies.

117 *The tariff is perceived to serve as an entry-fee system to cap arrivals.*

118 *While advocating the merits of the tariff, several tour operators interviewed acknowledged that the tariff stifles product development and prevents rural communities from directly engaging in the sector.*

government from the royalty portion of the tariff ($65 per person per day), which amounted to $11.43 million in 2010, and discusses issues associated with calculating the sector's true contribution to GDP. Similarly, 2010 figures quoted by the RMA include references to tariff earnings, hotels and restaurants, the transport sector and Druk Air – but not to the sector as a whole[119].

The TCB Secretariat has taken steps to calculate the overall contribution of tourism to GDP, which in 2010 was conservatively estimated to be around $90 million. This figure was calculated as set out in Table 9.2 below. The TCB recognizes that this calculation is fairly crude and that there is a need to look at alternative options to determine with greater accuracy both total income from the sector and benefits to the wider economy.

Table 9.2 Calculating total tourism earnings

Income source	Earnings in million $	Notes
Tariff income	36	Includes Royalty payment and income received by tour operators
Druk Air	21.59	Total revenue ($38m) x non-Bhutanese arrivals (57%)
Regional high-end tourists	9.93	12,410 visitors x 4 days (av. stay) x $200 (av. spend per day)
4 & 5 Star hotels	7.42	Assuming 35.81% of total occupancy (207,290) x $100 for each bed (conservative figure compared to pricing of hotels up to $1,800 per room per night)
Out of pocket spending by 76% tariff-paying tourists (on handicrafts, souvenirs, extra drinks)	8.65	Surveys suggest that 76% of visitors spend $1-500 : $400 was taken as average
Out of pocket spending by 11.38% of tariff-paying visitors	2.43	Surveys suggest that 11.38% spend $500-100 : $750 was taken as average
Out of pocket spending by 8.59% of tariff-paying visitors	3.67	Surveys suggest that 8.59% spend more than $1,000 : $1,500 was taken as average
TOTAL	**89.69**	

Source: TCB

For any country, calculating the real contribution of tourism to GDP is complex and challenging. It requires a comprehensive economic database that includes detailed tourist consumption/expenditure data, sector-specific investment data and a national accounting matrix (input-output table/social accounting matrix) highlighting the flow of economic activities, along with considerable expertise in economic modelling. Despite the absence of such details and expertise, the above approach is appreciated as the first attempt to measure the contribution of tourism

119 *Since a considerable percentage of tariff income also includes spending on hotels and restaurants, it is assumed that there is some cross-over and double accounting for these figures.*

to Bhutanese GDP and a first benchmark for assessment. Other positives include simplicity and cost effectiveness in the estimation process. However, as recognized by the TBC, the proposed methodology is a fairly crude if not gross measure of the tourism contribution to GDP; it ignores several elements of the tourism economy that could lead to overestimating or underestimating actual contribution. For example, it fails to consider:

- Undercutting on the tariff and commissions paid to overseas agents[120].
- The fact that many tour agents sell packages above the tariff rate to accommodate special requests and itineraries, especially where 4 and 5 star accommodation is booked.
- The true earnings of the 4 and 5 star hotels, whose room prices can be more than ten times higher than the $100 figure used in the above calculations.
- Linkages between tourism and the wider Bhutanese economy based on a modelling strategy (such as input-output modelling).
- Economic benefits flowing to the Bhutanese people in terms of employment generation and regional development.
- Leakage(s) from the tourism economy, as many hotels rely heavily upon imports (car, petrol, food, etc.), which implies that a considerable percentage of earnings passes straight out of the country.

Each of the areas above is important and should be factored in to measure the overall size of the tourism economy, as well as its component parts. The information is critical to developing policy and regulatory measures that will maximize the overall contribution of tourism to GDP and national development objectives. As noted above, the RGoB and TCB have publicized the aim to attract 100,000 tourists in 2012. Less attention is given to the goal to increase the sector's contribution to GDP to $215 million in 2012; however, this should arguably become the key target to aim for in maximizing linkages with other sectors of the economy and minimizing leakage of the tourist dollar.

Other critical issues over and above tourism's contribution to GDP also need to be considered in relation to tourism earnings. As stated above, government objectives are to significantly increase visitor numbers and open new areas of the country to tourism, and in so doing to provide new income and employment opportunities for rural households and communities. It is therefore important to measure (i) the extent to which tourism earnings are benefiting individual Dzongkhags, and (ii) the flow of income and employment opportunities along different supply chains to households and rural communities. This information is critical because the link between tourism and poverty alleviation "is neither automatic nor straightforward"[121]. To determine policy, it is necessary firstly to understand the extent to which current practices are delivering income and employment opportunities to

120 *Undercutting of the tariff has been rife (see Rogers 2002) and continues to be practiced by some operators – it is also considered standard business practice to offer in-bound agents a 10 percent commission on the tariff.*

121 *UNDP 2011, Tourism and Poverty Reduction Strategies in the Integrated Framework for LDCs, p. 37*

local communities. An investigation should be made to identify, on the one hand, what works in terms of the size and significance of financial flows, and where benefits are gained, and on the other hand what does not work and where few or no benefits are earned or distributed. This information is fundamental for several reasons. Firstly, it can help to replicate or improve current practices in different subsectors and supply chains. Secondly, it is essential for the formulation of policies and regulatory frameworks. Finally, it provides a basis for improving CSR and inclusive, responsible and pro-poor tourism.

To measure tourism's contribution to GDP and national development adequately, a more accurate methodology is required in order to estimate total annual earnings generated by Bhutan's tourism sector and to make this information more relevant to policy formulation. A sound methodology is also needed to estimate the total annual income and employment generated by the tourism sector in different Dzongkhags.

9.4.1.1 The option of Tourism Satellite Accounting. In order to reach a better understanding of the contribution of tourism to GDP, the TCB is considering the option of developing Tourism Satellite Accounting (TSA), which is a standardized system recommended by the UNWTO. There are very few countries in the world with fully functioning TSAs: they include Australia, New Zealand and Canada, all of which have taken about 10 years to develop their TSAs. These and other countries currently developing TSAs have far greater volumes of tourists and considerably larger tourism economies than Bhutan.

Given the time-frames and sizeable budgets involved in rolling out a TSA programme, it does not seem advisable for Bhutan to choose this option at this point in time. It is recommended rather that a tourism economist and accounting specialist with experience in TSA systems be contracted by the TCB in order to (i) review the current method used in estimating overall tourism earnings, (ii) assess alternative options to more accurately calculate tourism earnings and contribution to GDP, and (iii) make recommendations for the selection and preparation of policy-oriented data.

Meanwhile, efforts could be made to fully collect and publish the basic tourism statistics reported in the UNWTO's Compendium of Tourism Statistics (http://statistics.unwto.org/en/content/data-and-indicators).

9.4.1.2 Tourism's contribution to Dzongkhag economies, particularly those beyond Paro and Thimphu. Other than Paro and Thimphu, the three provinces that attract significant bed nights from tariff-paying tourists are Wangdiphodrang, Bumthang and Punakha. A consultancy firm should be contracted through the TCB Secretariat to review the tourism economies of at least two, or all three, of these Dzongkhags, working in close collaboration with the TCB Secretariat and the district administrations. In particular the review should:

- Estimate total tourism-related spending in the Dzongkhags, in particular on agricultural produce, labour, local transport, accommodation, retail and handicrafts. Supply-chain maps should be developed to ascertain the level of spending that both stays within

and leaves the Dzongkhag. Key to the success of the assignment will be the establishment of a standardized methodology. The study should also identify areas where spending into the Dzongkhag economy might be increased.

- Assess the number and type of local jobs created within the Dzongkhag-level tourism economy. The study should consider both direct and indirect employment opportunities and the extent to which tourism serves as general stimulant to the local economy.

Both studies should describe any innovative schemes in place (or completed) to increase spending within the Dzongkhags or create tourism-related employment, and assess the prospects for replication. It would also be useful to identify areas where employment opportunities are being lost due to skill and knowledge shortages.

Some work in this area has already been started including, for example, a value-chain study in Paro by the SNV Netherlands Development Organization, and a study entitled "*Demand Analysis of High-End Hotels in Thimphu* by the MoAF's Agricultural Marketing Services. Priority should be given to a study of tourism in the Phobjikha Valley - a primarily nature-based destination with a growing tourism economy. Studies should be repeated on a two or three-year basis to compare and contrast data, understand lessons for replication and identify areas where policy, regulatory projects or CSR interventions could be applied.

9.4.2. Fostering cross-sector coordination

International tourism is a complex, diverse and fragmented industry. It is made up of five key sub-sectors (accommodation, transport, restaurants and retail, entertainment, financial and tour operator services) with products and services supplied by the private sector. Government agencies are also key players in the industry's development and promotion. Some actors, such as immigration officials and tourist police, interface directly with tourists, while others play a behind-the-scenes role, for example in coordinating transport and investment, or promoting policy and enabling environments across different sectors and government-line agencies. Developing consistent and compatible policy and regulatory environments across each sector requires design and understanding both across government agencies and at multiple levels within each agency. In other words, there is a need for tourism-industry related knowledge and understanding within a range of government agencies other than only national tourism organizations.

Table 9.3 below provides a summary overview of the roles and responsibilities of Bhutan's government agencies with regard to the development and promotion of the tourism sector.

Table 9.3 Summary of government agency roles and responsibilities in the tourism sector

Government agency	Tourism interests
Tourism Council of Bhutan	A range of responsibilities associated with: • **Policy issues** • **Product and service development** • **Management and regulation** • **Marketing and promotion** • **Research and evaluation**
Ministry of Agriculture and Forests	A range of responsibilities to ensure: • **Tourism activity supports biodiversity conservation in and around protected areas** • **Producers and suppliers of grains, meats, dairy produce, vegetables and fruits can benefit from trade links to the tourism economy**
Ministry of Education & Ministry of Labour and Human Resources	A range of responsibilities linked to: • **Training skilled and semi-skilled employees suited to the needs of the industry** • **Developing teaching and training courses suited to the needs of the industry** • **Encouraging educational institutions to undertake quality tourism research**
Ministry of Economic Affairs	A range of responsibilities related to: • **The promotion of handicrafts and souvenirs** • **The promotion of MSMEs to service and supply tourism-related businesses** • **The promotion of tourism as trade and facilitating foreign direct investment in the sector**
Ministry of Finance	A range of responsibilities related to: • **Evaluating income generated from the tourism sector** • **Allocating funds to government agencies with tourism-related agendas** • **Implementing tourism investment incentives** • **Promoting access to credit and business loans** • **Collection of tariff Royalty payments**
Ministry of Foreign Affairs	Setting of tourist visa fees, rules and regulations
Ministry of Home and Cultural Affairs	A range of responsibilities related to: • **Immigration** • **Managing and promoting cultural and heritage properties as tourism resources** • **Promoting and maintaining the authenticity of cultural festivals**
Ministry of Information and Communications	A range of responsibilities related to: • **Road safety and transport** • **Air transport policy and management** • **Tourist access to mobile and internet networks**
Royal Bhutan Police	• **The safety and welfare of tourists**

Interviews with a variety of stakeholders revealed the existence of a series of issues and concerns relating to sub-optimal and inconsistent sector coordination. To help address these concerns, it is recommended that UNCTAD's *Train for Trade* programme in Sustainable Tourism Development should be adopted. The purpose of the training is twofold. Firstly, it would promote a deeper understanding of the nature and structure of sustainable and responsible tourism, together with its benefits and limitations, for officials within different government line agencies and for senior local government officials at the Dzongkhag level. A deeper level of industry understanding – including knowledge of market-oriented mechanisms and practices – would facilitate more coherent expectations as to what tourism activity is capable of supporting and delivering. Secondly, through this deeper understanding, the programme would strengthen cooperation and coordination in the planning and management of sustainable and responsible tourism across line agencies and between the centre and district levels. In addition, the timing of the programme could be structured to ensure that the new 2011 Tourism Bill is accurately explained and worked through with government line agencies and officials at the Dzongkhag level.

9.4.3. Product development and community-based tourism

As noted above, Bhutanese tourism is primarily dependent upon its cultural heritage. Its festivals, with almost 90 percent of visitors, focus primarily on this heritage. The Paro and Thimphu Tshechus are largely responsible for the seasonal spikes shown in Graph 9.5. The festivals are extensively marketed by both small and large tour operators and result in over-bookings and congestion for Druk Air and hotels. To address these concerns, the 10th FYP specifies the objective of spreading arrivals throughout the year and across the country, and identifies the following product development strategies:

- While continuing to be portrayed as a cultural, hiking and trekking destination, innovative activities will be promoted to draw upon Bhutan's natural and cultural heritage –bird watching, adventure sports, spiritual experience, wellness, happiness, peace, pilgrimages, etc.
- To promote Bhutan as an ideal destination for MICE (meetings, incentives, conferences and exhibitions), an appropriate Convention Centre of international standard will be built in Thimphu.
- Old heritage sites such as Drugyel Dzong, Drapham Dzong and Zhongar Dzong will be conserved and protected.
- In addition to normal Tshechus, other festivals will be instituted in various regions.
- Greater access to cultural and natural wealth, such as Dzongs, Tshechus, religious ceremonies, Neys, parks, rivers and mountains shall be facilitated with proper rules to ensure safety, sanctity and dignity of people and tourism resources.
- Special support will be provided to promote tourism in eastern and southern Bhutan, with Sarpang and Samdrup Jongkhar to be included as entry and exit points for tourists.

In general terms, there is wide acceptance

that the role of government is to provide an unfettered enabling environment for product development that includes both well-formulated policies and regulations and incentives to guide expansion. Private sector actors collaborate and invest in this endeavour by physically providing tourism-related products, goods and services. An example of this progressive collaboration in Bhutan has been the policy to introduce 4 and 5 star hotels and resorts. According to MoEA data, eight FDI projects have been approved to date, with a total estimated investment value of $48.5 million. Two other domestic investments have also ventured into this market[122]. There are currently five operating luxury hotels in Paro, three in Thimphu, two in Punakha, one in Phobjikha and one in Bumthang. These include Amman with five facilities, Uma with two, and other investors set to develop facilities that will allow clients to travel and stay with them as they journey through the country.

On the positive side, these facilities are extending the boundaries of product development in Bhutan. They include in their offerings, for example, spas, meditation, wellness and fitness classes (with internationally renowned instructors), conference facilities, special interest talks, adventure sports, photography classes and more. They also operate in a local business and community setting and their guests often seek personal yet staged interaction with local people to understand more about Bhutanese culture, lifestyles and customs. As the businesses and their clientele are increasingly aware of the need for socially and environmentally responsible business practices, these facilities are arguably better placed than tour operators both to deliver socio-economic and environmental benefits to their surrounding and local communities, and to further extend product development.

On the negative side, these facilities have been introduced into the market at a time of turmoil in the global economy. Several facilities are operating - perhaps struggling - with annual occupancy rates below 30 percent. With uncertainty continuing in global markets and the number of luxury hotels set to increase, there is genuine concern among the managers as to how businesses will evolve. While all managers look forward to Druk Air's introducing new aircraft and the commencement of Tashi Air operations, others have concerns about the tariff regulations. The tariff system does not allow hotels to accept direct bookings from guests; bookings must be managed through a local tour company. For some luxury hotels this is not an especially cumbersome process[123] but for others it is considered a very significant business impediment that can artificially inflate room prices[124]. The need for prior payment and visa processing through a tour operator can inconvenience guests to the point where bookings and business are frequently lost[125]. The final outcome is that "Brand Bhutan", with an image that seeks to cater to

122 *While Taj Hotels and Resorts manage the Taj-Tashi, the property is an investment by Tashi Group Holdings. The Zhiwa Ling is also a domestic investment.*

123 *Different hotels have different practices – some are partnered or closely associated with tour companies, others have started their own in-house tour company, while at least one has no association with any tour company.*

124 *Tour operators do not need to use the tariff payment to pay for the accommodation as they do with 3 star hotels, so tour operator profits can increase when clients stay in luxury hotels.*

125 *A number of hoteliers interviewed also complained that some tour operators regularly make exceedingly late payments for rooms provided, while others fail to pay altogether.*

high-end travellers, loses brand equity due to quirky regulatory practices and poor attention to customer service.

The present chapter has identified a number of other challenges that constrain Bhutan's product development potential. Many of these are typical of developing countries and emerging destinations. To overcome product development obstacles, many governments have worked with donor and development agencies to design community-based tourism programmes. Results, however, have been mixed. Typical errors of community-based tourism programmes include:

- A failure to consult with the private sector, especially tour operators, who play a key role in marketing, promoting and selling products and services in the global market place.
- Developing products in remote locations with poor accessibility.
- A tendency to place too much emphasis upon community ownership, community decision-making, and community responsibilities, which over time leads to several disadvantages: a lack of accountability, poor coordination, low incomes for key actors, and a mismatch between the product and the expectations of visitors and tour operators.

This is not to say that community-based tourism projects are totally misguided. Any form of destination development work that seeks to create and embed visitor experiences in host communities should be consultative, inclusive and generate income, employment and entrepreneurial opportunities for local households. It does however need to be recognized that, in a business environment, there are limitations as to what can be achieved with community-based decision-making and profit-sharing. For example, despite successes and a relatively healthy flow of visitors, Bhutan's Nabji Khorphu Trek has suffered from some of the issues noted above, and efforts are underway to resolve start-up problems with more market-oriented solutions, including greater efforts by tour operators to advertise and promote the trek[126]. Lessons from this exercise are also informing the development of the Merak Sakteng Trek in the far east of the country.

From meetings with the TCB, local governments, economic operators and community leaders, it appears that there is a need for (i) delivering assistance to the regulatory, incentive and enabling environment, (ii) facilitating private sector and entrepreneurial activity in the field of product development, and (iii) providing funding for implementation. Assistance, mostly T.A, will build government capacity and improve the enabling environment. Ideally, specific interventions should be chosen that link directly with support to entrepreneurs and MSMEs to facilitate product and enterprise development in the market place. Action might involve, for example:

- Developing interpretation facilities, hides or wildlife-viewing infrastructure in protected areas, training village or national guides, and working with specialized tour companies to develop new product itineraries that are consistent and in line with new national

126 *See TCB 2010, A Critical Analysis of CBT in Bhutan – Guidelines Based on the Pilot Project Nabji Khorphu*

park regulations and protected area management plans.

- Working with the TCB Secretariat to source investors for eco-lodges in protected areas, or working with new investors to provide training to local communities so as to equip them with the skills and understanding to respond to income-generation and employment opportunities.
- Working with selected tour companies on aspects of product development and business planning with local entrepreneurs and MSMEs to develop market-oriented products, and assisting those operators to market themselves and build business-to-business linkages with out-bound operators in emerging and expanding source markets that are interested to start selling tours to Bhutan[127].
- Providing specific targeted technical and financial assistance to product development components of the Fabindia initiative.

In addition to the above, suggestions were made to provide technical or organizational support to the Guides' Association of Bhutan and the Hotel Association of Bhutan to help build the collective capacity of their members and put these fledgling associations on a more professional footing.

9.4.4. Strengthening supply chains

Strengthening the accommodation and restaurant supply chains that link tourism to Bhutan's Labour market (households, farmers and entrepreneurs), is important for several reasons. It would restrict the passage of tourism-related earnings out of the country; it would provide income and employment opportunities for a variety of households including poorer and marginalized families; it would increase GDP; and finally, it would provide a more wholesome offering more worthy of "Brand Bhutan".

However, supply and demand issues associated with these chains – especially the food sector – are extremely complex. Current linkages are weak and there appear to be few easy solutions to current challenges. Problems include identifying which of the previous efforts should be built on and where the greatest opportunities lie before prescribing specific projects worthy of programme support. Some observers suggest, for example, that linkages are weak because visitor volumes are low and insubstantial, and predict that they will automatically strengthen as volumes increase[128]. Others argue that the small size of landholdings and the percentage of total land area suited to farming are too small to justify costly interventions, so that substantial linkages will never be developed. Against this view, it is interesting to note that one of the five-star hotels imports 90 percent of its vegetables from India, while another ensures that 100 percent of its vegetables are locally sourced. This example seems to suggest that supply chains can be strengthened. However, interventions need to be based upon a mindset to succeed, a thorough and detailed analysis of supply and demand variables, and innovative and targeted support once there is a verified

127 *At least two of the larger tour companies interviewed were either interested in, or in the process of, discussing and negotiating with local households and entrepreneurs to try to develop home-stay experiences.*

128 *The oft-quoted saying that direct linkages between tourism and poverty alleviation are "neither automatic nor straightforward" is relevant here – there should be little room for complacency!*

market demand.

9.4.5. Positioning Bhutan as a carbon-neutral destination

Climate change will increasingly impact on Bhutan's tourism industry in a number of ways: both economically, through increased costs of travel to and around the country, and psychologically, as visitors from its key long-haul markets of North America and Europe weigh the climatic and environmental costs of breaks and holidays in Bhutan. Viewed in this way, it is inevitable that some potential visitors will make alternative travel choices. To counter this scenario proactively, it is strongly recommended that Bhutan should clearly state its positioning on the global tourism market place as one of the few countries in the world that is a net sequester of carbon and also one of the few countries to be taking proactive measures to promote a carbon-neutral tourism sector.

This recommendation is proposed for the following reasons:

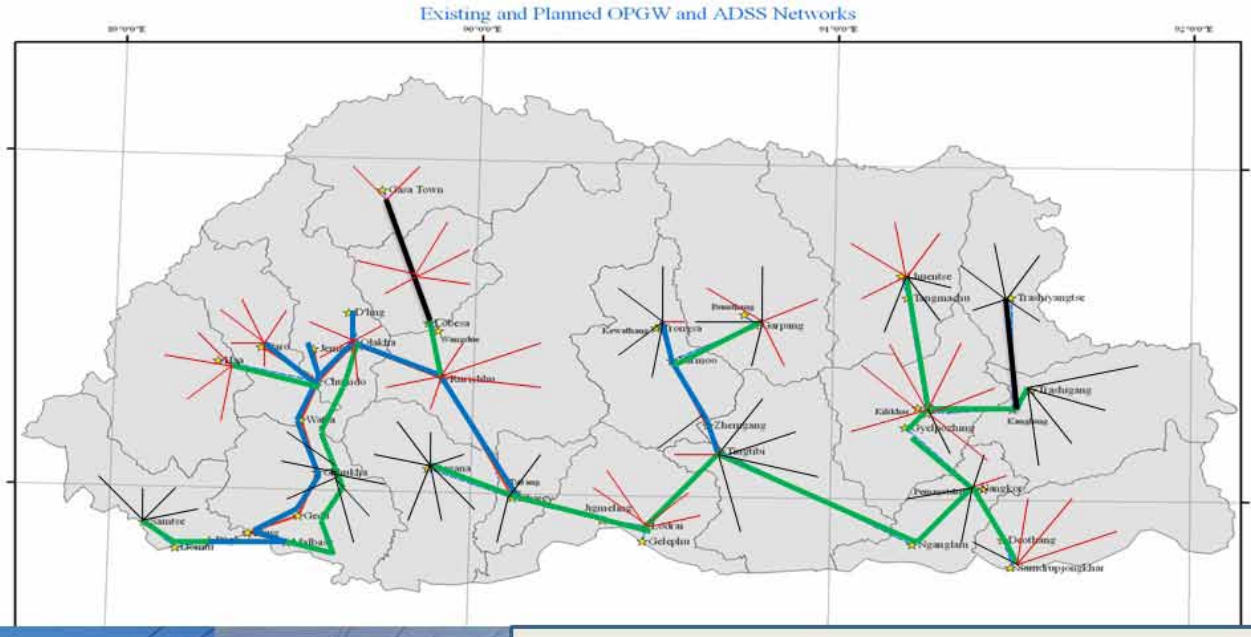
- In line with its GNH policy and its mission to promote "Brand Bhutan" to the world, there is also a political and moral imperative to reduce the carbon footprint of Bhutan's tourism industry.
- Compared to most countries, Bhutan's tourism industry has a very small carbon footprint. It is therefore possible to find far less sophisticated solutions than those needed by most destinations in order to design and implement a road map for carbon-neutral tourism.
- Aircraft emissions are a key contributor towards greenhouses gases. Bhutan has only one airline, a national carrier, so that it will be relatively straightforward to measure emissions and take mitigating actions. Even with the addition of the approved second airline, mitigation steps will be relatively straightforward.
- Bhutan places a high value on its carbon neutrality, which is viewed as key pillar of its GNH policy. Tourism can help promote this aspect of "Brand Bhutan".
- Surveys suggest that about 30 percent of all visitors to Bhutan learn about the destination through friends who have visited the country. Positioning Bhutan as a carbon-neutral destination offers the opportunity to develop a smart media campaign capable of generating considerable global "free media" attention and positioning in the international marketplace.
- Almost 40 percent of Bhutan's land area is covered by protected areas, which easily makes Bhutan the global leader as the country with the highest proportion of its land area dedicated to protected areas. Similarly, some 70 percent of Bhutan's land area is forest covered. As with hydropower, these basic facts can be promoted as part of a strategic 'feel good' media campaign. The increased attention focused upon Bhutan's protected areas and forests could also translate into increased interest and a rise in visitors drawn to the country's natural heritage.

To sum up, this branding, as well as the pro-active steps to set Bhutan on a path towards carbon neutral tourism, are viewed to be central and critical to the success and credibility of "Brand Bhutan". They are also designed to promote Bhutan's GNH agenda in

the international arena, and to build Bhutan's international profile and standing in the global tourism market place. A key purpose of this recommendation is, however, to attract more visitors to Bhutan and to meet the government's ambitious growth targets.

The National Environment Commission has recently developed Terms of Reference for "Technical Assistance to Develop a 10-year Strategy and Action Plan for Bhutan to Maintain Carbon Neutrality". Tourism should feature as an integral component of this national strategy. It is also noted that the Association of Bhutanese Tour Operators (ABTO) currently has a grant application pending with the EU's Switch-Asia "Promoting Sustainable Consumption and Production" programme. The initiative is seeking to develop a voluntary low-carbon footprint scheme for hotels, guest houses and restaurants.

NBMP: Fiber Schematics



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Existed/being put prior to the project

Completed OPGW

ADSS completed

ADSS to be connected

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10 INFORMATION AND COMMUNICATION TECHNOLOGY AND DEVELOPMENT

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CHAPTER 10. INFORMATION AND COMMUNICATION TECHNOLOGY AND DEVELOPMENT

Introduction

Information and Communication Technology (ICT) continues to develop worldwide, with wireless diffusion being particularly important, according to the most recent data from the International Telecommunication Union (ITU)[129]. The global information economy is increasingly a digital or Internet economy, and is continuing to grow as the global economy grows. More and more people are adopting ICT applications and devices, especially mobile devices and the financial, social networking and other services that they enable[130]. The diffusion of mobile devices (there are over 1.5 billion mobile handset users in the developing world) has democratized access to financial services, including banking services, across the developing world. It is generally recognized that investments in ICTs in general, and in broadband infrastructure especially, stimulate economic development[131],[132].

The diffusion of ICTs is responsible for these changes and for transforming the way we do business globally. It is making business more efficient and less error-prone by streamlining and automating business processes. It is also increasing worker efficiency. Countries that do not exploit ICTs to the fullest extent are increasingly at a disadvantage.

ICTs in trade facilitate the processing of payments and the clearing of goods through customs. The yearly World Bank Doing Business report now ranks countries based on the speed with which they clear goods - a factor that is increasingly associated with the automation of all steps in the customs clearing process - while at the same time integrating e-commerce services.

ICTs also provide options in the way business is transacted, by allowing the displacement of work from areas of high business costs to locations where the cost of doing business is lower. This is the basis for the multi-billion dollar Information Technology-enabled Services (ITeS) industry. ITeS represents a substantial business opportunity for Bhutan.

The ITeS market place is varied but is generally considered to include business process outsourcing (BPO), which in turn includes Information Technology Outsourcing (ITO) and higher-value services grouped under the heading of knowledge process outsourcing (KPO). It can include contact centre services, content development, IT infrastructure services, human resources management

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129 *ITU 2011, Measuring the Information Society, Geneva, p. 174 . See http://www.itu.int/ITU-D/ict/publications/idi/2011/*

130 *Rueda-Sabater, E. & J. Garrity 2011, "The Emerging Internet Economy: Looking a Decade Ahead," in Dutta, S. & I. Mia, eds., Global information Technology Report 2010-2011, Transformations 2.0, World Economic Forum, Geneva, Chapter 1.2, p. 33-45. See http://reports.weforum.org/global-information-technology-report/*

131 *Zhen-Wei Qiang, Christine and Carlo M. Rossotto 2009, "Economic Impacts of Broadband," in World Bank 2009, Information and Communications for Development: Extending Reach and Increasing Impact, Washington, D.C., Chapter 3, p. 45. See http://go.worldbank.org/NATLOH7HV0.*

132 *Broadband Commission for Digital Development 2011, Broadband: A Platform for Progress – Executive Summary, ITU/UNESCO, p. 8. See http://www.broadbandcommission.org/report2/executive-summary.pdf.*

services, consulting, engineering services, etc.

The market ranges from lower-value services provided by call centres and contact centres, all the way up to highly valuable services such as system integration services, engineering consulting, architectural or animation design consulting, research and development outsourcing, etc. Clients come from all sectors: financial and banking, insurance, legal, manufacturing, the media, health, the public sector, etc. The main clients are located in North America, Europe and to a lesser extent Japan. In India and China, a growing middle class is contributing to the growth of outsourcing services. The same can be said of outsourcing services in most countries where the larger service providers such as government and public utilities, as well as large consumer products companies, rely on call centres. This is also the case in Bhutan.

Regional (India) and international ITeS markets are very large and very dynamic. The international market opportunity is extremely significant both in India and beyond[133]. The global information technology (IT) market was valued at $3.6 trillion globally in 2011, with IT services valued at $ 818 billion (2011) and the ITeS market valued at $ 425 billion (2010), of which $124 billion is the value of all offshore destinations with India, accounting for $54 billion and a growth rate of 14%. Other offshore destinations are growing even more rapidly, with China increasing at 30%.

The India IT industry has 450 delivery centres operating in 60 countries. The industry hires specialized talent in developed markets, but costs are rising in India. The main market for Indian outsourcing services is the USA. The top three companies in India are Tata Consultancy Services, Infosys and Wipro, which are expected to hire 100,000 people in 2011, while the Indian IT sector as a whole will hire 200,000 people. Along with these companies, there are several other important providers of ITeS services including IBM, Accenture, HP and others. These companies compete with the Indian outsourcers. All firms in the outsourcing sector have outsourcing service centres in many destinations around the world. However, "India's dominance in the outsourcing market has begun to show weakness in recent years due to market expansion, rising costs and high attrition rates. This is paving the way for other countries such as the Philippines, Ireland, Romania, Malaysia, and more importantly China to show their capability to provide outsourcing services".

Bhutan could realistically and initially account for several hundred jobs in this sector, and these could grow to much greater numbers over time.

The provision of data centre services is another market opportunity for Bhutan to consider. This market is valued globally as a component of "computing hardware" at about $391 billion. The global "cloud computing" trend is encouraging the development of data centres that are more energy efficient. In 2011, Microsoft projected that annual data centre growth, estimated at $50 billion for 2011, would grow to $80 billion by 2020[134].

133 *International Business Times 2011, Global Outsourcing: Opportunities and Risks, 2011 Special Report, p. 10. See http://www.scribd.com/doc/47942398/Special-Report-Global-Outsourcing-Opportunities-and-Risks-2011*

134 *Belady, C.L. 2011, Projecting annual new data centre construction market size, Microsoft, Global*

Several of the largest ICT transnational corporations, including Google, Facebook and others, are looking to renewable energy sources such as hydropower and solar energy to cool their data centres[135]. Given that data centres are considered to represent about 1.3 % of total global electricity consumption, the market opportunity is significant. Bhutan is in an enviable position to leverage its significant hydro-electric power resources to take advantage of this trend and opportunity. Compared to competing countries (Nepal, India Sikkim and India Assam as well as China), Bhutan has many advantages in meeting the needs of the India and of other foreign markets.

10.1. Bhutan's relative position

The Internet is coming quickly to Bhutan. The investment by the Royal Government of Bhutan in deploying aerial fibre-optic cabling using the power line infrastructure of the Bhutan Power Corporation is nearly complete, and while only a few Gewogs are now connected to the Internet via Community Centres (CCs), funding has been made available to build CCs in 160 of the 205 Gewogs across the country. At the same time, Bhutan is actively negotiating with India telecommunication service providers to add more separate fibre-optic cable connections from Indian service providers as a way of ensuring reliability, providing redundant connections and achieving the necessary quality of service (QoS), i.e. the 99.9% reliability and uptime as well as the mean time between failures (MTBF) that is essential to secure investments from foreign ICT firms in the ITeS as well as data centre sectors.

At present, while the diffusion of wireless ICT services is growing considerably and reaching most parts of the country, the availability of wireless broadband services such as 3G is limited to Thimphu and uptake is very slow. PC and Internet penetration is low, and Bhutan scores at the lower end on major ICT indices such as the 2011 edition of the ITU Internet Development Index, where its position is 119th out of 152 countries[136]. Wireless broadband is associated with the migration to higher-end mobile payment solutions as well as to social networking services, and offers easier access to the Internet and to the hundreds of thousands of applications developed for smart phones, tablets and other handheld devices.

Bhutan is in the process of implementing an ambitious plan to computerize several government services through the G2C (government to citizen) project, and is recognized for its successful implementation of telemedicine in e-government deployment and use. However, Bhutan's rank is only 152 out of 183 countries in the 2010 edition of the e-government Development Index of the United Nations Department of Economic and Social Affairs[137]. The United Nations Conference on Trade and Development (UNCTAD) Information Economy Report 2011 shows that the implementation of an "enabling framework to promote e-business

Foundation Services, p. 9.

135 *Fehrenbacher, K. 2011, Facebook's Swedish data centre mostly powered by clean energy, Oct. 27. See Gigaom.com, http://gigaom.com/cleantech/facebooks-swedish-data-centre-mostly-powered-by-clean-energy/*

136 *ITU 2011, Measuring the Information Society, ITU, Geneva, p. 174.*

137 *United Nations 2010, United Nations e-government survey 2010: Leveraging e-government at a time of financial and economic crisis, United Nations Department of Economic and Social Affairs, New York, p. 140. See http://www.unpan.org/egovkb/global_reports/08report.htm*

by the year 2009" has been slow[138]. One of the problems is the reliance of ICT firms on foreign expertise, although this is changing rapidly as a result of the increasing number of Bhutanese graduates with ICT skills entering the marketplace.

In the 2012 edition of the Doing Business report published by the World Bank, Bhutan ranked 169th out of 183 countries in terms of "trading across borders", a situation that is compounded by a lack of implementation of a unified and networked e-customs solution that would facilitate trade and border clearance for goods[139].

A further problem is posed by the business registration process. At present, all business registrations are carried out manually and no database has been available until recently. The situation is changing and will involve automating the whole registration process as well as re-engineering the complete business registration process. The procedures will be simplified and the information provided will be digitized. At present, only 174 companies are registered corporations because many firms register as sole proprietorships. This situation is changing as the law and procedures are modernized.

The RGoB has made ICT a development priority and is investing heavily in improving access to ICT use, as well as considering ways to enhance access to public services through the implementation of the G2C project. It is also taking steps to make it easier to register businesses and is establishing a credit bureau - factors that have been shown in other economies to be important in attracting foreign investment in general and in the ITeS sector in particular[140], [141]. The Ministry of Education, as well as the Royal University of Bhutan and the Royal Institute of Management, have aggressive programmes to train graduates with the requisite IT skills that will permit them to perform in a modern office environment. Similarly, IT technical training and computer sciences curricula have been modernized, and educational institutions in Bhutan remain well aware of the needs for ICT teaching.

10.2. ICT policy and legal framework

To support the review of the Bhutan Information, Communication and Media Act 2006, two independent experts with legal expertise in dealing with ICT and related issues such as e-commerce were asked to review the Act[142].

In general, the two experts agreed that the Act is comprehensive and covers most aspects of concern, but they also indicated that it should be updated to reflect current practice. Some aspects of the law appear to be excessively detailed for primary legislation and more detailed provisions may be best set out in regulations or rules that can be updated more easily than primary legislation. Furthermore, it is likely that at the same time, some basic provisions concerning consumer protection

138 *UNCTAD 2011, Information Economy Report 2011: ICTs as an enabler for private sector development, Geneva, p. 164.*

139 *World Bank 2011, Doing business 2012*

140 *World Bank 2011, Doing business 2012*

141 *UNCTAD 2011, ICT Policy Review Egypt, Geneva.*

142 *Steve Rawson, a telecommunications legal expert from the Toronto, Canada-based firm Great Village Consulting, (http://www.greatvillage.com/) and Margot Priest, a legal expert who is Head of Governance, Regulatory and Legislative Reform at Icegate Solutions, a Canadian company (http://www.icegate.ca/) .*

law may need to be updated. The existing provisions for online privacy stop well short of what is expected today by government and the private sector. It is recognized that a solid records and archives management system is key to a well-functioning system of data protection and electronic service delivery; however, it is unclear whether there is an Archives Act that would support the solid management of records as a legal obligation. General data protection principles have long been agreed upon and should be integrated structurally and organizationally into any proposed right-to-information act.

Concerning intellectual property rights (IPR), the assessment of the two experts was that "ICT law is far from being a complete framework for intellectual property protection, and presumably is complemented by other laws of Bhutan".

On issues related to cyber security, the law under section 171, "Provisions regarding Cyber Security issues", and following sections, is evaluated as being a "reasonable implementation of cyber issues current to 2006, but should be updated". The experts agreed with the recommendation made below in this report for the creation of a Certificate Authority (CA) for Bhutan and for the establishment of a Computer Emergency Response Team (CERT) / Computer Incidence Response Team (CIRT) to further secure the Bhutan Internet.

A review of legislation would not be complete without an assessment of the Bhutan InfoComm & Media Authority (BIMCA), because of its overarching role. The review should cover BIMCA's effectiveness, organization and relevant legislative provisions as well as its responsibilities. The determination of its responsibilities necessitates an examination of the actual and functional independence of the BICMA in light of the broad ICT powers assigned to the Minister under Chapter 2, section 35, which suggest that the minister has power to issue directions. It would also require an investigation into the absence of a clear budget approval process which would provide the BICMA with secure funding that is less subject to possible government interference.

Other areas have been identified for review, including the sections concerning anti-monopoly provisions. The law does not appear to include a "Western European" framework for determining significant market power (SMP) or even dominance in the market. A more detailed listing of recommendations for updating the Bhutan Information, Communication and Media Act 2006 will be included in the final ITC report.

The Royal Government of Bhutan has made a strong commitment to use ICTs and to develop the ICT sector for development purposes. This commitment is captured in the Economic Development Policy (EDP) of the Royal Government of Bhutan. Of interest in the EDP document is the objective of making Bhutan "an attractive destination for FDI in R&D, data processing and high end BPOs through a highly trained talent pool"[143].

10.3. Relations between GNH and an ICT-enabled economy

ICTs have significant benefits that are consistent with the GNH concept and its application. E-commerce and e-government have the effect of limiting environmental impacts by localizing

143 *Royal Government of Bhutan 2010, EDP*

service access and delivery. The environmental impact of using a computer and the Internet is far less than manual and physical alternatives, including travel to secure access to the services desired. ICTs in general make the economy run more efficiently by enhancing the efficiency and reach of markets and by cutting the costs of unneeded travel. ITeS services and e-commerce in general also allow people to work locally instead of forcing them to relocate to where the work may be centred.

ICTs are considered essential tools to help abate climate change and otherwise limit environmental impacts in general. A 2008 study has demonstrated the significant benefits of ICTs in this regard[144]. The use of fast Internet connections, invariably based on direct fibre-optic links, allows the delocalization of various business services to areas where energy is abundant, relatively inexpensive and green. As mentioned above, locations such as Bhutan, with access to significant and relatively plentiful and therefore relatively inexpensive renewable energy resources, are at an advantage. Localization of energy-intensive data centres to cooler climates with plentiful reserves of renewable energy is being privileged by large ICT transnational corporations, as also mentioned previously[145]. The ITeS industry also allows the delocalization of work to areas where wages are lower. Bhutan stands to be able to profit from this tendency.

Green Growth, which is associated with the need to develop technologies which are much more energy efficient in the first place, and which also contribute to reducing greenhouse gas (GHG) emissions, is another trend Bhutan could tap into that is consistent with GNH. Many of these technologies require ICTs to make them smart and green. Investments in "cleantech" were valued at $243 billion in 2010[146]. Bhutan could develop the human skills to offer Green Growth-related services and possibly even technologies, although this would require developing the manufacturing industry. Many of these smart services could be offered as ITeS. Their development in Bhutan could strengthen Brand Bhutan by associating the country with efforts to promote Green Growth and abate climate change.

10.4. Institutional framework for ICT and the development sector

ICT use by the Royal Government of Bhutan is increasing. However, to take full advantage of the power of ICTs and to further increase process efficiency and enhance service delivery, the Royal Government of Bhutan needs to consolidate and streamline ICT use and encourage the adoption of shared services. These measures would enhance national competitiveness and the trade position of Bhutan, as well as the quality of public services delivered, by establishing an effective, systematic and productive e-government system.

The government also needs to develop and implement government-wide enterprise technology plans, and develop and maintain a government-wide enterprise

144 *The Climate Group 2008, SMART 2020: Enabling the low carbon economy in the information age, Report on behalf of the Global e-Sustainability Initiative (GeSI), p. 87. See http://www.smart2020.org/publications/*

145 *Fehrenbacher 2011, ibid*

146 *Pew Charitable Trusts 1911, Who's winning the clean energy race, 2010 edition, G-20 Investment powering forward, Philadelphia. See http://www.pewenvironment.org/news-room/other-resources/investing-in-clean-power-329295.*

view and governance model to oversee the e-government transformation that still needs to be completed. The government also needs to develop an e-procurement system that will strengthen the capacity of the private sector, in particular enabling Bhutanese small and medium-sized enterprises (SMEs) to use ICT trading platforms as a way of doing business that will make them more efficient in business and more trade and export ready.

An enterprise-wide IT plan will lead to the promotion and adoption of a common and consistent IT architecture based on currently accepted enterprise standards, which invariably are based on open standards. This model will need to focus on strengthening accountability and on measuring value and performance. Appropriate metrics will have to be developed and applied for this purpose. Project management, customer relationship management (CRM), content management systems (CMS) and tracking projects and resources will be required. These measures will help the government to acquire a better understanding of the needs of its citizens and of other customers and clients of government services, including government suppliers of goods and services.

Shared services and a standards-based approach will ensure that all government ministries and departments use common and interoperable standards and operating systems, procedures and - most importantly of all - applications and data structures. To do this, the government has to develop a solution similar to that put into place in promoting the G2C (government to citizen) project, i.e. a central executive organization under the Committee of the Secretaries.

Shared services apply to the following business processes and services: IT, finance, human resources, supply chain purchasing, property and facilities management, documents, archives and records management, customer integration and CRM, a common CMS, and a common e-procurement platform. The integration of these services under a common government-wide information system will be required. From a trade development perspective, the e-procurement platform is especially important, for reasons that are further explained below.

Community Centres are central to the development of an e-procurement platform. Although 205 CCs have been planned, funds are available only for 160 communities. Sixty-five CCs have been constructed so far; at present, only a handful of these are nearly operational (16 in September 2011). The first phase of construction aims to build 100 CCs by the end of December 2011. Fifty of the CCs will also have Hole in the Wall (HiTW) facilities for children and young people.

Of the 160 most important G2C services that are being developed, only 13 are presently available, but this figure is expected to grow rapidly to over 100 over the coming months. CCs are essential for the roll-out of G2C services. From a trade development perspective, they will provide access to a range of public and private sector opportunities for business and trade development. In order for the CCs to have any chance of success, they must meet the needs and demands of community dwellers. Invariably, people want information and services that deal with government, jobs and other employment and business opportunities, as well as access to information about health

issues and about education.

Each community needs to be made aware of uses to which the CCs can be put. In order to put the operation of the CCs on a sound business basis, the following needs to done:

- Undertake a demand study to assess the information and other needs that a CCs can provide to the local community. Presumably some of this information is already available as a result of the work done under the G2C project.
- At the same time, promote awareness of the services currently available at the CCs. At present, these services are mostly G2C services.
- Develop an e-commerce platform that local businesses can use to sell local goods and services, in order to help local businesses realize the benefits of access to the Internet and to local and distant markets. Marketing associations exist in many if not most Gewogs and villages, and Internet access can be used to facilitate access to information about market prices and opportunities, etc. While mobile devices may already provide similar services, an Internet connection can provide digitally enriched information.
- Develop, as part of the business plan for each Gewog, an assessment of the markets that could take advantage of an e-commerce platform for doing business.
- Post information designed for the local and community-level business groups that would benefit the most from trade-related services available over the Internet: local marketing associations (dairy, forest products, other agricultural, local and community-based tourism services), job marts and malls listing job and tender opportunities. Conversely, encourage people to use the Internet to post their resumes, advertise the services they provide, etc.
- Promote access to information about procurement and job opportunities. This will be a key application for people at the local and community level, and is the reason why an e-procurement platform is a priority.
- Other opportunities: use the CCs to help extension agents as well as farmers and local business operators themselves to obtain market and technical information.

The priority at this time is to find funding for the remaining 45 Gewogs. Demonstrating the success of CCs and of the services they offer will depend on the kind and quality for the services themselves and on the demand for these services.

10.5. Recommendations

The use of ICTs in Bhutan is growing rapidly. With the diffusion of fibre-based Internet connections to all Gewogs, the country is poised to reap the significant benefits of the information society. However, there remain challenges. While Bhutan offers a business-friendly environment, there is a need to further enhance the role of the private sector in the economy so that local businesses are ready to take advantage of ICT-enabled trade opportunities and can form viable joint venture partnerships.

Similarly, to encourage e-commerce, mobile payment systems should continue to be

encouraged and Internet banking further developed. E-procurement has been demonstrated to be a modernizing application that can help achieve this objective. On this basis, it is strongly recommended that the Royal Government of Bhutan establish as soon as possible a compulsory, uniform and government wide e-procurement service. None of this is possible without a high-speed and secure Internet backbone complemented by redundant high-speed, secure, and dedicated access to the global Internet backbone. In order for the benefits of the information society to be made available for all, operating CCs with high-speed fibre connections need to be established in all 205 Gewogs.

10.5.1. Secure the ITeS opportunity for Bhutan

There are two separate but related projects under this heading. The first project is to market Bhutan as an ITeS destination. The second is to continue to enhance the attractiveness of Bhutan as a foreign direct investment (FDI) destination for ITeS providers and investors.

10.5.1.1 Marketing Bhutan as an ITeS destination. Objective: to raise awareness of the country as an ITeS destination. Bhutan has real advantages that need to be documented and communicated to potential investors. As the ITeS market is well developed, several market research firms have established themselves and specialize in assessing market potential in given markets, whether existing ones such as India, the Philippines and others, or new market entrants such as Bhutan.

10.5.1.2 Actions and measures to be taken. Objective: to identify and confirm ITeS niches for Bhutan: low-end service delivery, data centre hosting and other opportunities. Substantiate and document advantages. Actions to be taken:

- Identify those niches that are most appropriate among the several sectors or market niches in the ITeS market that have been previously mentioned.
- Develop a road map that, over time, will explain how Bhutan will move up the ITeS value chain to offer higher value services. An ITeS roadmap and strategy would be required for this purpose. Hire a high-profile firm or entity that would attract attention to the results and point out the relative advantages of Bhutan as an FDI destination for ITeS. The London School of Economics (LSE) carried out this assignment for Egypt, but others with ITeS expertise could also undertake this assessment for Bhutan.
- Develop a marketing plan to promote ITeS off-shoring and outsourcing in Bhutan based on the niches and opportunities identified.
- Implement the marketing plan: (i) identify venues and opportunities for communicating the marketing plan and objectives of the ITeS business plan, and (ii) participate in NASSCOM and other international venues to showcase Bhutan as an ITeS destination(in particular) and FDI destination (in general). Attendance should be encouraged at Davos, WEF, and international ITeS meetings, and not just in India.
- Ensure that Bhutan is included in global market analyses published by various firms and associations specializing in this sector.

These actions should be considered as a

high-priority intervention that requires the involvement of many Bhutanese ministries and agencies, including the Ministry of Foreign Affairs, the MoIC, the MoEA, the Ministry of Finance and the DHI. For this purpose, the Royal Government of Bhutan needs to establish a multi-level communication campaign to increase the visibility and profile of the national service industry in the export sector. MoEA is responsible for attracting foreign investors; it needs to develop an awareness promotion campaign for this purpose. Foreign expertise can also be consulted: some of the firms with international expertise in this area include A.T. Kearney, which is responsible for producing the annual Global Services Location Index (GSLI)[147]. In countries such as Egypt, similar efforts have demonstrated their success: Egypt has been able to show progress in its rankings in the GSLI as well as in the World Bank Doing Business report and this has boosted the country's attractiveness as an FDI destination[148].

The government also needs to develop a coherent long-term strategy to promote ITeS. Especially importantly, the RGoB should develop partnerships with ITeS and other multinationals that depend on ITeS. The government also needs to work much more closely with business groups such as the World Economic Forum (WEF), the International Chamber of Commerce, etc.

The estimated cost for an international marketing campaign is of the order of $250-500 K for the regional market and probably around $1 to 2 M for implementing the plan, participating in global venues, contracting ITeS marketing firms to undertake business assessments of Bhutan, and for including Bhutan in market reports.

10.5.2. Enhance the attractiveness of Bhutan as an FDI destination

Together with its global marketing effort, Bhutan has to enhance its position as an ITeS destination by continuing and extending the policies that attract FDI. Specifically, the RGoB should continue to:

- Provide incentives to foreign firms to establish themselves in Bhutan in general and in the IT Park in particular.
- Include these incentives as part of the ITeS marketing plan for the IT Park and other ITeS opportunities.

Link the marketing of the IT Park to the marketing on the Education City. These are mutually supporting endeavours and equally attractive to potential investors and IT Park occupants, as they play off and reinforce each other.

- Make special provisions for facilitating transit through customs, including facilitating the transit of goods, and to a lesser extent of services, across the border with India. This would facilitate construction and the trade in physical goods and related services that may be required, in particular, by the tenants of the IT Park and of the Education City. It would also facilitate the fulfilment of e-trade transactions requiring the shipment and/or import of physical goods across the border.

147 *Kearny, A.T. 2011, Global Services Location IndexTM (GSLI). See http://www.atkearney.com/index.php/Publications/global-services-location-index-gsli.html .*

148 *UNCTAD 2011, ICT Policy Review Egypt*

- Facilitate access to labour, especially to management and technical experts. This includes facilitating the employment and residence of foreign experts to help establish, manage and operate the ITeS businesses dependent on FDI or resident in the IT Park and the Education City.
- Continue to provide training incentives to prepare Bhutan graduates for the ITeS and related business and technical sectors.
- Continue to align formal education and vocational training services with the needs and circumstances of business in general and of the ITeS sector in particular.

This is a high-level priority to be implemented by the MoEA, DHI, the Ministry of Education, the MoIC and the Ministry of Finance (Revenue and Customs Department), and the MoLHR. A high-level governance mechanism must be put into place, as was the case for the G2C project, and/or responsibilities must be delegated to an executing agency. It is estimated that training incentives for firms entrusted with training Bhutanese employees, and those provided to citizens, may cost the equivalent of $500 K to 1 M a year.

10.5.3. Continue to develop broadband infrastructure

The objective of this endeavour is to continue to develop the national fibre-optic network backbone and to meet other existing and near-term broadband infrastructure needs in order to connect communities throughout Bhutan and to connect Bhutan globally and to the Internet backbone.

A key challenge facing Bhutan's efforts to promote the IT Park as an ITeS destination is the need to ensure access to high-speed and secure fibre-optic connections to the Internet backbone. As a landlocked country, Bhutan is at a disadvantage because it must cross a third country to get access to marine fibre-optic cables such as the FLAG sub-marine cable that links Asia to Europe and beyond, i.e. linking Asia to the Internet backbone.

The specific activities required to meet this objective include the following:

- Complete the fibre-optic network in Bhutan. Most of the fibre has been deployed across the country, and it is now necessary to connect existing CCs as well as government ministries and departments throughout the country.
- Continue to secure several redundant fibre-optic connections to the main Internet backbone in collaboration with India telecommunication service providers.
- Continue to seek and to develop QoS guarantees for backbone data services from Bhutan (Bhutan Power Corporation) as well as Indian service providers.
- Continue to explore options and secure commitments to ensure 99.9% reliability and QoS for Internet connections to the IT Park and the Education City. This is essential for attracting real-time ITeS service providers to the IT Park, such as contact centres and data centres, etc.
- Continue to negotiate for connections to the main Internet backbone through other countries as well as India, and specifically via Bangladesh (Grameen Telecom) in order to connect to the

FLAG sub-marine fibre-optic cable landing point at Cox's Bazaar.

- Continue to research and track market developments in ICT infrastructure and related innovations as well as in fibre-optic and other network developments, especially in India but also internationally.

Costs involved include the on-going costs of deploying the fibre-optic connections to all Gewogs, an activity that has been nearly completed. The cost of travel and that of telecommunications consultants to assist the Government of Bhutan is estimated at between $250 K to 500 K per year.

10.5.4. Establish CCs in all Gewogs

The objective of this project is to connect all communities in Bhutan to the Internet by establishing CCs in each gewog. This will help promote greater community participation in the social, economic and cultural life of Bhutan and enhance the capacity of all communities in the country to become self-sufficient.

The activities required to meet this objective include:

- Complete building and connecting community centres (CCs) in each of the Gewogs.
- Focus specifically on the 45 Gewogs for which funding is not available.
- Undertake a study of the demand for telecommunications services (or use the results of a universal access market study if available). Study the feasibility of having private sector telecommunication service providers participate in funding the CCs as part of an updated Bhutan Universal Access Strategy, where universal access is defined as access to broadband via a CC in rural areas.
- Develop a community-access business plan based on demand study and on the resulting marketing plan. This will involve working closely with Gewogs to help them understand the business case for community access and the building and operating of a CC.
- Undertake a comparative analysis of CC deployment and operation in rural areas in India and Brazil in order to better understand the business opportunities. India has a rich experience of providing e-enabled public and private services to rural locations. Bhutan has an advantage over India in this regard because the Gewogs will already be connected to the national fibre backbone.
- Seek to integrate this analysis with activities that promote using the Internet for marketing local skills and resources, especially businesses such as local crafts and local and community-based tourism (see some of the other projects or activities recommended below).
- Integrate these measures with the activities of the Education City project. Distance learning and related activities provided by the education market in Bhutan as well as by the Education City project could be used to enrich the attractiveness of Bhutan as an ICT / FDI destination.

The plan to establish CCs in all Gewogs is a high-level priority project that needs immediate and ongoing attention. The MoIC is the main responsible ministry along with

the Ministry of Home and Cultural Affairs as well as the Ministry of Works and Human Settlement. The Bhutan Power Corporation as well as Bhutan Telecom and Tashi Cell are also partners in this project.

The estimated budget is of the order of $1million, but could be higher depending on the costs associated with construction as well as the cost of connecting CCs. Costs will vary from community to community, depending on factors such as the proximity of a CC to the fibre-optic connection, the readiness, structural integrity and security of the CCs concerned, as well as the cost of the last mile connection between the fibre network and the CCs. More detailed costing is required.

The need to establish a tender for a consultant should be considered. The consultant would assist in (i) developing the marketing plan for individual Gewogs and CCs, (ii) developing a training plan, (iii) training the trainers who will administer the training, and (iv) developing a business plan for Gewogs and CCs to adapt to their specificities. The all-inclusive cost for establishing the tender would be about $ 75 K to 120 K, depending on the extent of consultation sought with Gewogs.

10.5.5. Create an enabling legal and policy environment

The objective of this activity is to continue to enhance the legal and policy environment to further encourage the adoption and use of e-commerce and ICT-enabled business.

This will require the following:

- Hire ICT and telecommunications legal experts to help modernize and strengthen the legal and regulatory framework by redrafting the Bhutan Information, Communication and Media Act, 2006, in order to better reflect current best practice, to take into consideration new developments in technology and business, and to strengthen components of the act.
- Review the intellectual property rights provisions under law.

Several other recommendations concerning the need to enhance the legal and regulatory environment to better reflect current practice have already been made previously. The key players here are the MoIC, BIMCA and the ICT & Media players. The cost of researching, consulting with key stakeholders, and rewriting the act to better reflect current best practices in this sector would require between $30 to 300 K depending on the extent of the services required over a period of 1 to 6 months.

10.5.6. Put into place an e-procurement platform and streamline procurement

The objective of this recommendation is to encourage SMEs to use computers and the Internet for business. Given that the Government of Bhutan is the main market for goods and services in Bhutan, computerizing procurement will drive small business operators to the e-procurement platform that is to be put into place. As the e-procurement platform is an e-commerce platform, this will encourage private sector operators to learn about e-commerce in order to secure government contracts. Experience in other jurisdictions that have tried to encourage the private sector, and especially SMEs, to use PCs and the internet and to adopt e-commerce suggests that this is one of the best ways to

accomplish this aim[149].

E-procurement systems have other benefits as well. They improve the efficiency, transparency and reach of government procurement, and enhance access to government tender opportunities for SMEs and for anyone with an Internet connection. E-procurement promotes e-commerce in government and beyond, and encourages SMEs to modernize. E-procurement also promotes the growth of the ICT ecosystem in a fashion that is consistent with the Bhutan's ITeS and trade development ambitions.

The following activities are proposed:

- Automate procurement: undertake a business process analysis (BPA) of the procurement process with a view to streamlining, increasing efficiency, consistency, transparency and access to opportunities for all across the country.
- Reengineer the procurement process accordingly, to make the best use of automation.
- Set procurement policies: all ministries must use the Government of Bhutan's e-procurement platform and do so by a certain date. Ministries and other government organizations must be required to use the system and will not be able to undertake procurement in any other way. This will ensure that the system attracts users, and that common procedures and standards as well as processes are followed throughout.
- Test the system by running a pilot project. This is important in order to properly set up an e-procurement system.
- Raise awareness among SMEs and train SMEs to better understand the ways in which they will benefit from e-procurement.
- Tender the operation of the e-procurement service on a PPP basis (if possible).

The priority for implementing an e-procurement platform on a pilot project basis is high. The sooner such a system is put into place, the sooner Bhutan SMEs and individual contractors will develop the skills and knowledge to use e-commerce for enhancing trade and development in Bhutan.

The key ministries for implementing an e-procurement project are the Ministry of Finance, working in collaboration with all Government of Bhutan ministries and agencies. The e-procurement project is an e-government project that is a shared service for the government and which has added benefits in terms of promoting e-trade for SMEs and enhancing the competitiveness of Bhutan in the international trading system.

Indeed, a Government of Bhutan e-procurement system can also include links to other global, i.e. Internet-accessible, e-trading platforms across the world. Platforms include those of the international development agencies (both multilateral and bilateral donors) and increasingly, private sector operators around the world. An e-procurement platform could encourage Bhutanese businesses to expand their market reach and secure new partnerships and markets around the world. Some of the steps involved include establishing

149 *Personal communication J. Fagan, Oct. 2011. Joe Fagan is an expert in e-procurement who works for the Asian Development Bank, the World Bank and other agencies as well as countries. He can be reached at: jbfagan@rogers.com*

policies; bringing all ministries/agencies on board; awareness promotion; training; putting incentives in place; developing a pilot project on a tender basis; testing and reviewing the results of the pilot; tender for implementation.

E-procurement platforms have been developed and implemented on a public private partnership (PPP) basis in Canada, with great success, and the Canadian model has been implemented in the Philippines. Costing for an e-procurement system similar to the one used by the Government of Canada, would cost about $150 K per year over a period of 3 to 4 years. This would entail "starting small" and growing the system once it has been piloted successfully. For more details on implementing this system as a PPP, see Module 8 of the United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development (APCICT) where the Merx system of the Government of Canada is further described[150]. A more up-to-date version of Module 8 will be published shortly.

10.5.7. Develop the Bhutan Innovation and Technology Centre (BITC)

The objective of this intervention is to nurture Bhutanese entrepreneurs in the ICT sector by developing the Bhutan Innovation and Technology Centre (BITC) and the Thimphu TechPark.

The Ministry of Education, as well as the Royal University of Bhutan (RUB) and the Royal Institute of Management (RIM), have all recognized the importance of computer training and education. High school students graduate with some basic IT skills and these are further developed at university. The RIM also provides graduate diplomas to high-school leavers. The Chiphen Rigpel project ("enabling a society, empowering a nation"), undertaken by the Indian National Institute for Information Technology (NIIT), is also having a significant impact and is a further indication of the commitment of the government to ICT learning and education.

The activities to be undertaken under this project include the following:

- Assess market opportunities for Bhutanese entrepreneurs working in the ICT sector in the local, Indian and global market places:
  - A growing opportunity is the creation (conceiving and programming) of applications for mobile devices such as the iPhone, Android, and other handheld devices and operating systems.
  - Another application area is the development of content in Dzongkha, the national language. Given the small market size, the way forward may be to start with developing e-government applications for the mobile ecosystem that provide another channel for accessing G2C services and e-government services in general.
  - An important market opportunity will be the mobile payment market in Bhutan and abroad.
  - Part of the assessment should

150 *United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development. 2010, Update of Academy Module 8 on Options for Funding ICT for Development. See http://www.unapcict.org/news/update-of-academy-module-8-on-options-for-funding-ict-for-development*

include looking critically at the various programming and marketing platforms offered by the various mobile operating systems and measuring the opportunity to take advantage of demand in this increasingly important and commercial market space.

- Develop a business incubation strategy for the Bhutan Innovation and Technology Centre and beyond. This strategy should be focused on meeting local needs as well as the needs of the Indian market and beyond.
- Develop a marketing plan for the BITC.
- Consider the opportunity provided by the Green Growth market for environmentally-friendly applications and technologies. This is a very large market and, as discussed previously, one that is likely to grow significantly in the coming years.

The key players in developing this strategy will be the Thimphu TechPark, the Bhutan Innovation and Technology Centre, the MoIC, MoEA and DHI. Clear collaboration linkages should be established with the Education City. Estimated costs to undertake this study will be about $150,000 in year one.

ANNEXES

ANNEX 1: GRADUATION FROM LDC STATUS

A country qualifies as an LDC if it satisfies certain threshold levels with respect to 3 criteria: GNI per capita, the human asset index (HAI)[151] and the economic vulnerability index (EVI)[152]. For a country to graduate, it must exceed the thresholds on two of the three criteria for graduation in two consecutive triennial reviews conducted by the CDP, whose secretariat is provided by the UN Department of Economic and Social Affairs (DESA). The thresholds are determined by the Committee for Development Planning (CDP) for each triennial review[153]. For the 2009 review, the thresholds were: a GNI per capita of above $1,086.00; a HAI of 10% above the inclusion threshold; and an EVI of 38, which is the value of third and fourth quartiles of 65 countries (the LDCs plus 15 island developing countries).

In 2009, with a GNI per capita of $1,770, Bhutan qualified under the first criterion but did not meet the second and third criteria[154]. The current HAI threshold is 64. Bhutan scores 58.6. Its EVI index is 52.9 as against the threshold of 38. The situation of Bhutan will probably be the same at the next review due in 2012, but Bhutan is likely to meet the threshold under the HAI index by 2015 and therefore be found eligible for graduation for the first time. A similar finding may be expected at the subsequent review in 2018, when ECOSOC and the GA may be expected to act on the CDP's recommendation to graduate, and the graduation will become effective after a further 3-year period, i.e. in 2021. In the three years between a decision to graduate and the effective graduation date, the country is expected to prepare a transition strategy. The transition period proper would be after 2021.

The results of the 2009 CDP review are shown in the following table:

Table 1: LDC review results for 2009

Indicators	Results
EVI	52.93
Exposure index	61.74
Population	666 918
Remoteness	54.813
Structural index	36.84
Export concentration	0.39
Shares of agriculture, forestry and fisheries	23.8
Shock index	44.13
Natural Shock index	37.92
Percentage of homeless	0.187
Agricultural instability	6.22
Export instability	19.11
HAI	58.6
Prevalence of undernourishment in total population (%)	20.018
Under 5 mortality (per 1000)	78
Literacy rate	56
Secondary enrolment ratio	48.8
GNI per capita ($)	1 487

Source: United Nations Department of Economic and Social Affairs

151 *Consisting of the average of (i) percentage of undernourished population, (ii) mortality rate for children below 5 years, (iii) gross secondary school enrolment ratio and (d) adult literacy rate.*

152 *The composition of EVI has evolved over time. For the 2009 review, it was composed of the average of exposure index (EI) and shock index (SI). EI comprises (i) population size, ii) remoteness, (iii) concentration of merchandise exports and (iv) share of agriculture (including forestry and fishing) in GDP. SI comprises of (i) homeless due to natural disasters, (ii) instability of agricultural production and (iii) instability of exports of goods and services. This was slightly amended in 2011, for implementation at the 2012 Triennial review. (See CDP REPORT, thirteenth session, Chapter III, Document E/2011/33).*

153 *See Handbook, chapter III for the calculation of thresholds*

154 *World Bank 2009, Bhutan Country Profile*

Implications of LDC graduation

The implications of LDC graduation are the loss of trade-related support measures that are likely to be threefold: (i) Official Development Assistance (ODA), (ii) trade preferences, and (iii) WTO membership, should Bhutan accede.

(i) Implications for ODA

On average, Bhutan received ODA of Nu 10,104 billion ($222 million) a year between 2008 and 2010, each year representing about 18% of GDP in current prices. ODA increased by 41.5% over the three years. Given Bhutan's likely graduation, most donors are considering an exit strategy, and the IMF (2011) has warned of the likely impact of a reduction in aid on the balance of payments[155]. Public debt stands at around 80 percent of GDP and is projected to exceed 110 percent in 2014/15, although the risks of large public and external debt are mitigated by the commercial viability of hydropower, which benefits from India's strong energy demand. Around half of public debt arises from hydropower investments[156].

Whilst donor funding is unlikely to diminish as quickly as some expect, over the next 10 years, strategies must be developed for the replacement of aid. This places increased importance on the successful implementation of the FDI policy and export growth under the EDP, as well as development of the financial sector.

(ii) Implications for trade preferences

Because of Bhutan's very liberal agreement with India and the predominance of trade with that country, the implications of the ending of preferences as a result of LDC graduation are likely to be minimal unless significant geographic diversification of trade occurs within the next decade.

- As noted above, Bhutan exports very little to the EU under the EBA initiative. Although some improvements can be made, this situation is unlikely to change very much for the following reasons: the dominance of trade with India, high transport costs, difficulties in achieving standards, and an absence of traditional trading relationships with Europe. The loss of LDC status will therefore be unlikely to have many implications. Bhutan will still be able to benefit from access to the US and EU under the GSP.
- Under SAFTA, Bhutan as an LDC is likely to have completed its tariff reduction programme by 2018, three years before its expected LDC graduation. Trade with non-Indian SAFTA countries is, in any case, small.
- Services negotiations under SAARC are likely to result in fewer commitments for LDCs. Bhutan has indicated its intention to use the same strategy as in its WTO accession package. It seems likely that negotiations might be completed within 10 years, meaning that Bhutan can retain the flexibility of its current LDC status.
- BIMSTEC commitments are country-specific, and tariff reductions are due to

155 *As per capita income grows, and irrespective of whether Bhutan remains an LDC or not, it will become ineligible for concessional borrowing from the International Development Association (IDA). The conditions for IDA borrowing are poverty and lack of creditworthiness for borrowing from commercial markets. In other words, IDA is totally disconnected from the criteria for LDC status. Per capita income is a proxy for poverty, while creditworthiness is defined as: "the ability to service new external debt at market interest rates over the long term." Bhutan is already under stricter criteria for lending by the World Bank and it may be placed under the 'blend' category of countries (eligible for both IDA and IBRD loans) from 2015. Bhutan will be increasingly pushed to borrow from the IBRD at prevailing LIBOR market rates*

156 *IMF 2011, Bhutan: Article IV Consultation, p.7.*

begin in July 2012 and be completed by the time of Bhutan's likely graduation.

(iii) Implications for WTO

Although accession looks unlikely in the near future, it is worth outlining some of the implications of the loss of LDC privileges. The only precedents for LDC graduation so far are Botswana (1994), and, more recently, Cape Verde and Maldives. Samoa will graduate in 2014. Equatorial Guinea's graduation is also expected soon and other countries are expected to graduate before Bhutan.

By 2021 several more LDCs are likely to have graduated, and it will be useful to study both their roadmap for graduation and the arrangements for the transitional period that they will manage to obtain from the WTO members through the Committee for Trade and Development. There will thus be plenty of time for Bhutan before its probable graduation in 2021, to study the precedents of these other countries and develop its own transition strategy for the post-2021 period.

A possible disadvantage of graduation is the loss of technical cooperation. Several WTO agreements and provisions, including Enhanced Integrated Framework (EIF), encourage trade-related technical assistance and support to LDCs to enable them to fulfil their obligations. Accordingly, after graduation Bhutan risks losing access to technical assistance and support.

In some WTO agreements, the benefits for LDCs take the form of non-binding commitments. These provisions simply encourage developed members to provide "special consideration" to these countries, without any specific details or legal commitments. They include Article XI(2) of the Marrakech Agreement; Article 10(1) of the SPS Agreement; Article 12.8 of the Technical Barriers to Trade Agreement; Article 3(5) of the Agreement on Import Licensing Procedures; Article IV(3) of GATS; 6(d) of the annex on Telecommunications in GATS; and Article 66 of TRIPS.

Several provisions, such as Article 11.8 of the Technical Barriers to Trade Agreement and Article 67 of the TRIPS Agreement, encourage support and the provision of technical assistance without any commitments.

Two provisions are the same for developing countries as for LDCs, but LDCs are specifically mentioned in Article 8 of the Understanding of Balance of Payments Provisions and Article 5(3) of the TRIMS Agreement.

This leaves five areas to date where LDCs receive specific and concrete benefits greater than other developing countries:

- Under *Article 15(2) of the Agreement on Agriculture,* LDCs are not required to reduce subsidies or agricultural import tariffs.

Box Annexe 1: The WTO Agreement on Agriculture

"Relevant multilateral disciplines, such as the Agreement on Agriculture, would allow considerable leeway for implementing domestic support schemes in favour of farmers, including rural women. The Agreement would not put any restrictions on the use of measures that do not or only marginally distort trade, such as research and development, extension outlays, rural infrastructural services and regional assistance programmes. Such measures fall under the green box in WTO jargon, and are exempted from reduction commitments. Other relevant trade policy measures, including subsidization of inputs and price-support schemes, would qualify as trade-distortive measures, or amber-box measures, normally subject to reduction commitments. However, as an LDC, Bhutan would be exempted from taking reduction commitments. In the event of graduation from LDC status, some of these measures, for example, non-product specific agricultural input and rural investment subsidies would continue to be permissible under the development-box exemption granted to developing countries (Agreement on Agriculture, article 6.2). Budget allocations for other trade-distortive measures, both product- and nonproduct- specific, would meet WTO requirements only within a de minimis threshold: for developing countries, 10 per cent of the value of production of individual products (product-specific support) or total agricultural production (non-product-specific support)."

Source: UNCTAD (2011)

Under *Article 27(2) of the Agreement on Subsidies and Countervailing Duties,* the prohibition on the use of export subsidies is not applied to Annex VII countries (Least Developed).

- *Article 66(1) of the TRIPS Agreement provides a 10-year implementation period for* LDCs that can be extended subject to agreement from the Council on TRIPS. The Council has granted further extensions to LDCs that have not yet fully implemented their commitments. As mentioned in the section on intellectual property, full TRIPS-compliant laws have not yet been passed and transitional arrangements would have to be put in place.
- *Article 24(1) and (2) of the Understanding of Procedures Governing the Settlement of Disputes* provides for more consideration to be given by members to LDCs and procedures which allow arbitration by the Director-General of the WTO to resolve any dispute amicably in the interests of an LDC.
- LDCs have less frequent trade policy reviews, and the WTO Secretariat provides technical assistance in the preparation of the government's report. Since most developing countries are reviewed on a six-yearly basis, this is unlikely to provide Bhutan with any problems after graduation.

Finally, under the modalities adopted for the Doha Development Agenda negotiations on non-agriculture market access, LDCs are not expected to make any commitments other than to bind existing tariffs. Bhutan would still be able to apply this provision assuming it graduated and that the Doha negotiations are completed before the country's graduation as an LDC.

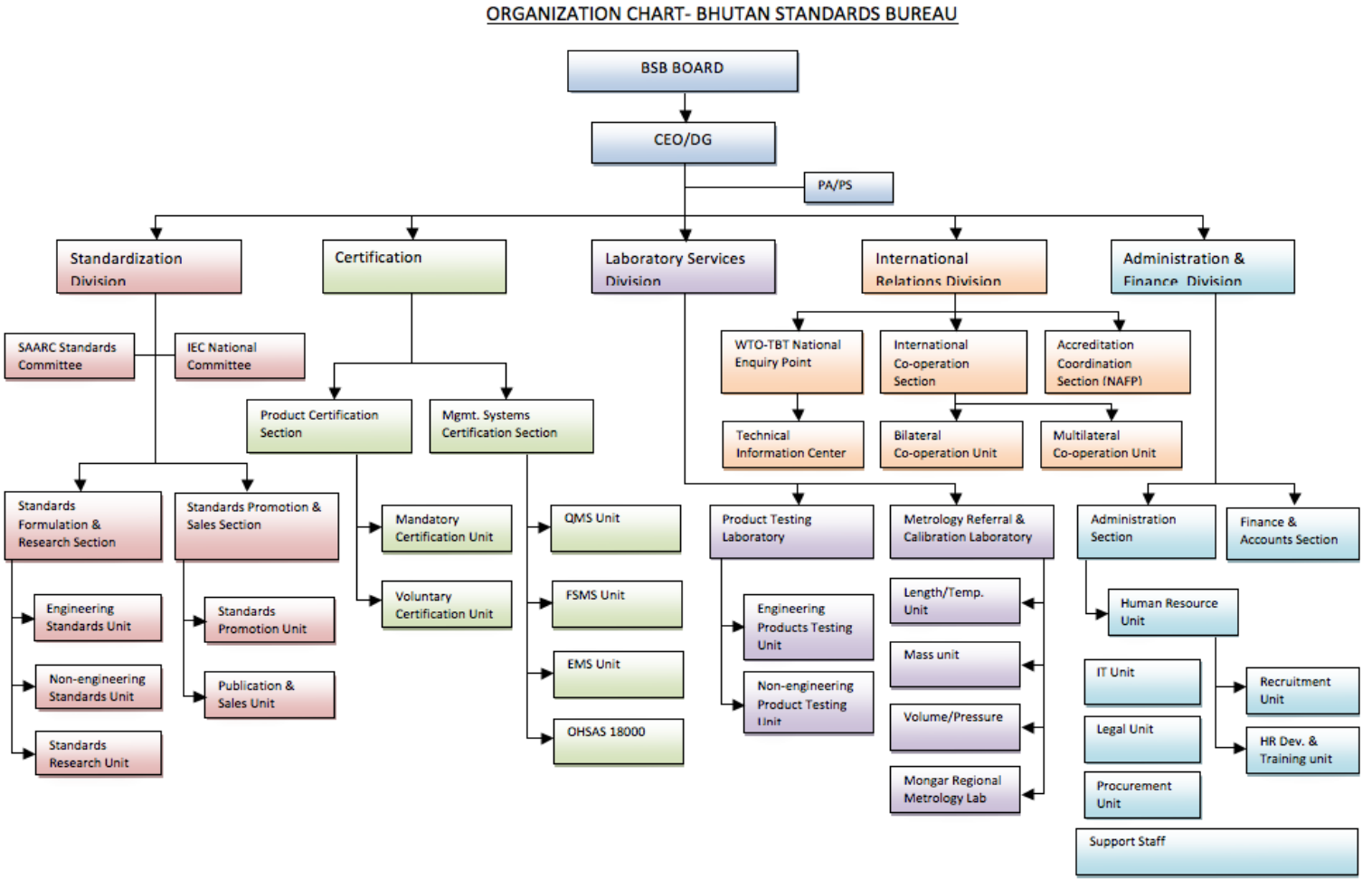
ANNEX 2: PROGRESS TOWARDS ACHIEVING MDGS

Box 2.3 Goals, Targets and Indicators	1990	2000	2007	2015	Status of Progress
Goal 1: ERADICATE EXTREME POVERTY AND HUNGER					
Target 1: Halve, between 1990 and 2015, the proportion of people living below the poverty line					
Proportion of population below the national poverty line (%)	-	36.3%	23.2%	20%	On Track
Target 2: Halve by 2015, the proportion of people who suffer from hunger					
Proportion of population below minimum level of dietary energy consumption	-	3.8%(03)	5.9%	1.9%	Needs attention
Percentage of underweight under-5 children	38%('89)	19%	-	19%	Achieved
Percentage of underheight under-5 children	56%('89)	40%	-	28%	Insufficient data
Goal 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION					
Target 3: Ensure that by 2015, children everywhere, boys and girls alike will be able to complete a full course of primary schooling					
Gross Primary Enrolment Ratio (%)	55%	72%	106%	100%	Achieved
Net Primary Enrolment Ratio (%)	-	62%	83.7%	100%	On Track
Proportion of Pupils starting grade 1 who reach grade 5 (%)	73%	91%	92.4%	100%	On Track
Proportion of pupils starting grade 1 who reach grade 7 (%)	35%	81%	85.4%	100%	On Track
Goal 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN					
Target 4: Eliminate gender disparity in primary and secondary education preferably by 2005, and to all levels of education by 2015					
Ratio of girls to boys in primary education (%)	69%('91)	82%	99.5%	100%	On Track
Ratio of girls to boys in secondary education (%)	43%('91)	78%	97.2%	100%	On Track
Ratio of females to males in tertiary institutes(%)	12%('91)	41%	54%	100%	Needs attention
Goal 4: REDUCE CHILD MORTALITY					
Target 5: Reduce by two-thirds between 1990 and 2015, the under-five mortality rate					
Under-5 mortality rate (per 1000 live births)	123	84	62	41	On Track
Infant mortality rate (per 1000 live births)	90	60.5	40 (05)	30	On Track
Proportion of children covered under immunization programme	84%	85	90%	>95%	On Track
Goal 5: IMPROVE MATERNAL HEALTH					
Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio					
Maternal mortality ratio (per 100,000 live births)	560	255	-	140	On Track
Births attended by skilled health personnel	15%	24%	55.9%	100%	On Track

Goals, Targets and Indicators	1990	2000	2007	2015	Status of Progress
Goal 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES					
Target 7: Halt and begin to reverse the spread of HIV/AIDS					
HIV cases detected	0	38	144 (08)	–	Needs attention
Contraception prevalence rate	19%('94)	31%	35.4%	60%	Needs attention
Target 8: Halt and begin to reverse the spread of Malaria and Other Major Disease					
Number of Malaria Cases per 100,000 population at risk	3,687	875	115*		On track
Number of Tuberculosis Cases per 100,000	720	168	127*		On track
Goal 7: ENSURE ENVIRONMENTAL SUSTAINABILITY					
Target 9: Integrate the principles of sustainable development into country policies & programmes and reverse the loss of environmental resources					
Proportion of land area covered by forest	72.5%	72.5%	72.5%	-	On Track
Ratio of protected area to surface area for maintaining biological diversity	23%	26%	29%		On Track
CO2 (per capita) emissions					Insufficient data
Proportion of population using solid fuels (i.e. wood, charcoal, dung		75%	70% (2005)		On Track
Target 10: Halve between 1990 and 2015, the proportion of people without sustainable access to safe drinking water and sanitation					
Proportion of population without access to an improved drinking water source	55%	22%	19%	27.5%	Achieved
Proportion of population without access to improved sanitation	33%	12%	10%	17.5%	Achieved
Goal 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT					
Target 14: In cooperation with developing countries, develop and implement strategies for decent and productive work for youth					
Youth unemployment rate	-	2.6%(98)	9.9%		Needs attention
Target 18: In cooperation with the private sector make available the benefits of new technologies, especially information and communication technology					
Fixed Telephone Lines in Service	4,052	16,580	35,420		On Track
Telephone density (per 100 persons)	0.68	2.4	15.6 (05)		On Track
Computers in use (per 100 persons)	-	0.58(01)	2.3 (05)		On Track
Internet users (per 100 persons	-	0.43(01)	1.2(05)		Insufficient data

Sources: PHCB 2005, MDG Status Report 2005, AHB 2008, BLSS 2007, General Statistics 2007, MoE, PAR 2007
*Provisional Estimates

ANNEX 3: ORGANIZATION CHART OF BHUTAN STANDARDS BUREAU



(Footnotes)

1 *International Monetary Fund 2011, "Bhutan: 2011 Article IV Consultation-Staff Report," in IMF Country Report No. 11/123, Washington, p.3*

VOLUME II:
NATIONAL EXPORT STRATEGY

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ACRONYMS

ADB	Asian Development Bank
BPO	Business Process Outsourcing
BCCI	Bhutan Chamber of Commerce and Industry
DHI	Druk Holding & Investments
EDP	Economic Development Policy
FDI	Foreign Direct Investment
FTEE	Full Time Equivalent Employment
FY	Fiscal Year
FYP	Five Year Plan
GATS	General Agreement on Trade in Services
GNH	Gross National Happiness
Ha	Hectares
IT	Information Technology
ITC	International Trade Centre
KGM	Weight in kilograms
LDC	Least Developed Country
MoEA	Ministry of Economic Affairs
RGoB	Royal Government of Bhutan
NTTA	National Technical Training Authority
NEC	National Environmental Commission
PPP	Public Private Partnership
SAFTA	South Asian Free Trade Area
SDR	Special Drawing Right
SME	Small and Medium-sized Enterprises
TCB	Tourism Council of Bhutan

EXECUTIVE SUMMARY

At the request of the Government, the National Export Strategy (NES) was prepared in parallel to the drafting of the DTIS. The NES is built on the findings, analyses and recommendations of the DTIS. However the aim has been to make the NES a self-standing document of immediate practical use. It goes further than the DTIS, as its preparation was informed by a prospective view of development. Its aim is to establish a dialogue with private sector operators; it includes very concrete proposals to respond to the needs identified by business operators.

The first section of the NES is a synthesis of the DTIS and therefore repeats some of its analyses. The most relevant discussions and tables are reproduced here for ease of reference.

One option advocated throughout the document is that the NES will not try to select "champions", considering that this is the private sector's role. A good strategy should develop an enabling environment, identify sub-sectors which have a strong potential for growth if appropriate policy measures are adopted, build a consensus on priorities between public and private actors and seek leverage effects through carefully planned interactions among sectoral policies.

The priority actions identified in the NES are an integral part of the Action Matrix which is attached to the DTIS. These priority actions could be financed by the national budget, resources available under Tier 2 of the EIF Trust Fund, or bilateral and multilateral donor programmes. In this regard, the EIF Action Matrix will also provide the foundation for a future Aid for Trade programme.

One important feature of the NES is that it is a "living" document that will be updated periodically to take into account achievements, new market opportunities and alliances, threats from competitors, technological innovations, and changes in the international environment or in the policies of the Royal Government of Bhutan.

1. Diagnostic

Nineteen products or product groups were examined.

The export potential was estimated by taking into account current export performance and export readiness as well as domestic supply conditions. The potential appears to be highest for hydropower, base metals and metal products, minerals, chemical products and tourism. Medium potential is shown for mandarins, potatoes, cardamoms, apples, agro products, cordyceps and IT services. The following appear to have only low potential: handicraft, red rice, matsutake mushrooms, lemon grass, handmade paper, and education and health services (at least in the medium term for the last two sectors).

The GNH impact was estimated by a simple average of the impact of the industry on five of the domains that have been defined for GNH: "psychological well-being", "education", "conservation of the

environment", "preservation and promotion of culture", and "community vitality". The GNH impact appears to be positive for hydropower, tourism, handicraft, handmade paper, education services and health services. It is neutral for most agricultural or forestry products (mandarins, cardamoms, apples, agro products, cordyceps, red rice, matsutake mushrooms, and lemon grass); uncertain for IT services; and negative for metal products, minerals and chemical products.

The socio-economic impact, estimated in terms of job creation, appears to be high for hydropower, tourism and handicraft, medium for cardamoms, mandarins, potatoes and IT services, and low for the remaining sectors.

Table 1: Export potential, GNH impact and socio-economic impact by sector

	Sector	Exports in value ($ million)	Share in export (%)	Export potential	GNH impact	Socio-economic impact (job creation)
1.	Hydropower	226	34	High	Pos.	High
2.	Base metals and metal products	214	32	High	Neg.	Low
3.	Minerals	55	8	High	Neg.	Low
4.	Chemical products	37	5	High	Neg.	Low
5.	Tourism	36	5	High	Pos.	High
6.	Mandarins	7	1	Medium	Neut.	Medium
7.	Cardamoms	5	0.7	Medium	Neut.	Medium
8.	Potatoes	4-6	0.6	Medium	Neut.	Medium
9.	Apples	2.5	0.3	Medium	Neut.	Low
10.	Agro product	2.3	0.3	Medium	Neut.	Low
11.	Cordyceps	1	0.1	Medium	Neut.	Low
12.	Handicraft	0.1[1]	<0.1	Low	Pos.	High
13.	Red rice	0.14	<0.1	Low	Neut.	Low
14.	Matsutake	0.07	<0.1	Low	Neut.	Low
15.	Lemon grass	0.04	<0.1	Low	Neut.	Low
16.	Handmade paper	0.006	<0.1	Low	Pos.	Low
17.	IT Services	0	<0.1	Medium	Pos.	Medium
18.	Education services	0	<0.1	Low	Pos.	Low
19.	Health services	0	<0.1	Low	Pos.	Low
	Subtotal	590	88			
	Total (hydropower, goods and tourism)	673	100			

Source: Bhutan Trade Statistics

2. Vision and objectives of the Royal Government of Bhutan

Based both on the main official documents such as EDP 2010, as well as on interviews with several Bhutanese high officials, the Government's vision of macro and sectoral objectives can be summarized as follows (Table 2):

Table 2: Bhutan's vision of macro and sectoral objectives

Category	Vision
Macro objectives	To achieve a self-reliant economy and full employment by 2020.
Sectoral objectives:	Services as top priority.
• Services	An IT-enabled knowledge society as a regional hub for high-end services (education, IT), and a thriving high-end tourism industry.
• Agriculture and forestry	A shift to commercial and organic production that would preserve Bhutan's forest heritage.
• Energy	Electricity as the driving force of the economy and of development.
• Manufacturing	To target green high-value and low-volume industries.
• Mining	Process before export.

The following table (Table 3) combines export potential and GNH impact and identifies trade-offs that can assist the choices made by policy makers. Some sectors considered as having high export potential show a negative GNH impact: these include metallic products, mineral products, and chemical products. Conversely, some sectors with low export potential show a positive GNH impact: these include handicraft, handmade paper, education services, and health services.

Sectors demonstrating the best positioning are hydropower and tourism, which combine high potential and high GNH impact. These are followed by IT services which show medium export potential together with a positive GNH impact. Then come agro products, potatoes, mandarins, apples, cardamoms, and cordyceps, with medium export potential and a neutral GNH impact.

Table 3: Sector positioning according to export potential and GNH impact

	Negative GNH impact	Neutral GNH impact	Positive GNH impact
High potential	Metallic products Mineral products Chemical products		Hydropower Tourism
Medium potential		Agro products Potatoes Mandarins Apples Cardamoms Cordyceps	IT services
Low potential		Red rice Lemon grass Matsutake mushrooms	Handicraft Handmade paper Education services Health services

The following table (Table 4) presents an analysis that combines export potential and socio-economic impact as measured by job creation. Again, possible trade-offs for policy makers are identified. Three sectors show both high export potential and a high socio-economic impact that favours job creation: hydropower, tourism, and handicrafts. However there are three sectors with high export potential that create few jobs: metallic products, mineral products and chemical products. There is also the opposite case: the handicraft sector, for example, has low export potential but a high socio-economic impact. Some products are interesting in that they show both medium export potential and a medium socio-economic impact; these include potatoes, mandarins and cardamoms.

Table 4: Sector positioning according to export potential and socio-economic impact

	Low socio-economic impact (fewer than 2,000 jobs)	Medium socio-economic impact (between 2,000 and 10,000 jobs)	High socio-economic impact (more than 10,000 jobs)
High potential	Metallic products Mineral products Chemical products		Hydropower Tourism
Medium potential	Agro products Apples Cordyceps	Potatoes Mandarins Cardamoms IT services	
Low potential	Red Rice Lemon Grass Matsutake mushrooms Handmade paper Education services Health services		Handicraft

3. Shaping actors and shaping factors to design a national strategy for exports

Shaping actors (labour force, entrepreneurs): "There is no wealth but men"	
Increase labour force	Pro-birth and selective immigration policies.
Improve labour productivity	-Include a training component in the incentives offered to foreign investors, notably in the IT park. -Increase intake capacity of the country's education system, especially in the vocational training institutes. -Improve the quality of the country's education system. -Generalize internship programmes in colleges and vocational training institutes.
Build a class of entrepreneurs (SMEs)	Enhance the Programme of Entrepreneurship Promotion at the Ministry of Labour and Human Resources, and include an export component.
Building a national system of innovation: connecting the actors	
Link shaping actors and initiatives	Integrate Education City and IT Park: train engineers and technicians in the city, who could be employed by companies located in the park. Ideally, locate the Education City and IT Park side by side.
Prepare a reverse brain drain	Encourage the creation of a national expatriates' community as future leverage for development.
Linking NES with complementary policies	
NES and trade policy and trade negotiations	See chapter on trade policy in the DTIS.
NES and industrial policy	Cluster industries.
NES and the exchange rate policy	Investigate leeway to allow move towards a more pro-export exchange rate policy.

INTRODUCTION

There is an obvious need for Bhutan to develop a strategic approach to exports. However, strategy is a pragmatic art that needs to adapt to constant change: the environment, the actors, their decisions, etc. Strategy is not the same as planning: it has to be based on principles, but these must be revised at any time if the need arises. Strategy therefore needs to remain as flexible and opportunistic as possible in order to be able to react properly to any change; it is a never-ending story. For this reason, a document that aims to design a national export strategy should provide only guidelines, firstly because otherwise it risks being rapidly outdated, and secondly because the execution stage, which is the core of the strategy, will require numerous adjustments. This is the philosophy that has been followed as the basis for the design of Bhutan's national export strategy.

The structure of the report is as follows:

Chapter I consists of a trade diagnostic which evaluates Bhutan's position in terms of comparative advantages and export performance. It identifies sectors that have significant potential for export growth, and compares and ranks 19 selected products or product groups.

Chapter II describes the vision and the objectives of the government at macro and sectoral levels. It identifies trade-offs that the government will have to consider when making decisions concerning the national export strategy, since different sectors have different prospects in terms of export potential, GNH impact and socio-economic impact. It then presents the different options that the RGoB can choose from, according to its vision of Bhutan's future development.

Chapter III examines the major actors and major factors that need to be mobilized to achieve the objectives described in Chapter II.
This report is designed for stakeholders who are participating in the definition and implementation both of the national strategy and of export development programmes. It aims to provide a consistent conceptual framework that would enable decisions to be made taking into account both quantitative and qualitative information; it therefore combines desk research with fieldwork in the country. Quantitative information includes trade and other statistics. Qualitative information includes a review of the relevant literature as well as information collected from interviews with enterprises and business associations.

The report has a strategic focus: it aims to guide the government, the private sector and civil society towards the most promising sectors in terms of export potential, GNH impact and socio-economic impact (job creation).

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1 DIAGNOSTIC: WHERE DOES BHUTAN STAND?

©Tshering Wangdi

CHAPTER 1. DIAGNOSTIC: WHERE DOES BHUTAN STAND?

Considerable diagnostic work has already been carried out through the preparation for the 10th Five Year Plan (FYP), the equivalent of a Poverty Reduction Strategy Paper (PRSP), and through the Economic Development Policy (EDP) 2010. Although all these documents recognize that trade is a critical ingredient for sustained economic growth, a trade diagnostic is missing. The present chapter aims to fill this gap.

A trade diagnostic of Bhutan's present position requires an examination of the following elements: (1) factor endowments, (2) macroeconomic strengths and weaknesses, (3) export performance, (4) the most promising sectors in terms of export potential, (5) the business environment, and (6) companies' export readiness.

1.1. Bhutan's factor endowments: comparative advantage in electricity-intensive industries

1.1.1. Geographical location: landlocked, insufficient road network connections

Bhutan's area covers 38,394 square kilometres, sharing borders with China and India. The country consists mostly of mountainous or hilly land; its difficult terrain and its geographical location are a constraint for the movement of both people and goods. As a land-locked country, Bhutan exports most of its produces by road, which is the most costly means of transport. In addition, Bhutan faces a myriad of logistical and trade hurdles in transporting goods for export to India or for transit at Kolkata Port. Due to the difficult terrain and the condition of roads in Bhutan, trucks cannot operate with high-axle loads on most parts of the road network. During the rainy season and in snowy winters, traffic slows down. For almost all agro-sectors, the unavailability of all-season roads hampers the transport of produce to the next step in the supply chain. On the Indian side, Highway 32 has been expanded and is now within 50 kilometres of the border. Given these factors, Bhutan suffers from inevitable high transportation and transaction costs. Bhutanese enterprises are disadvantaged in processing inputs and producing goods that are heavy or voluminous, or in transporting goods for which delivery time is a major issue. The distance from major world markets reinforces this disadvantage. Fast-moving markets demand short response times to buyers' requirements.

The tremendous constraints of transportation and transportation cost are often mentioned as Bhutan's major hurdle to trade. However it is important to determine whether in fact it is transportation that creates trade or whether, on the contrary, trade creates transportation. All the evidence suggests that when a potentially profitable business appears, transportation infrastructure follows. This is particularly the case with Foreign Direct Investment (FDI). Numerous examples taken from all around the world show that multinationals finance the necessary transportation infrastructure when they want to exploit a resource in a country (e.g. Intel in Costa Rica).

1.1.2. Political and geopolitical situation: stable and reliable

The country offers a political and geopolitical situation that is stable and reliable, in a region where some areas of neighbouring provinces in India are politically disturbed.

1.1.3. Labour force

Bhutan's population of about 700,000 people is scattered throughout its rugged and mountainous terrain. A majority of the population lives in rural areas, notably in the eastern part of Bhutan, whereas economic development takes place in the western part. This creates internal migration. Most sectors experience a labour shortage, with the result that Bhutan needs to import labour from neighbouring countries, notably India. In addition, a mismatch between labour skills and job requirements is on the rise: young people are generally unwilling to take up vocational occupations, wishing rather to be engaged in a stereotyped "office-goers' culture" which appears to them socially more prestigious. Bhutan therefore has a comparative disadvantage in labour-intensive industries, whether workers are skilled or unskilled.

1.1.4. Capital

The country suffers from a lack of capital. Credit facilities are limited and according to the interviewees, banks extend credit only on collaterals of land and buildings, without recognizing design, inventory, export management capability or experience. Moreover, interest rates charged by banks are high, averaging a rate of 12 percent for industrial and commercial loans.

1.1.5. Natural resources: huge water reserves and some minerals

Bhutan's major resource is rivers, which can produce electricity through hydroelectric power facilities, although currently only a small percentage of these rivers have been harnessed to generate electricity. Bhutan therefore enjoys a comparative advantage in electricity-intensive industry, as is reflected by the proportion of hydropower, processed metallic products and calcium carbide in Bhutan's total exports. In addition, the generation of electricity is an incitement to investment: the major reason mentioned by foreign companies interested in investing in the IT Park on the outskirts of Thimphu was the supply of cheap and reliable electricity. However, in order to harness this potential, a huge capital investment is required that is not locally available. Foreign capital, whether through loans, grants or FDIs, therefore plays a critical role.

Bhutan is also known to have some metallic mineral resources such as beryllium, copper, iron ore, lead-zinc, precious metals, and tungsten. Its industrial mineral resources include asbestos, clay, dolomite, graphite, gypsum, cement, limestone, phosphate rock, quartzite, and talc. Some exploration for hydrocarbons was being carried out in the southern border areas. Foreign capital is required to tap into these resources.

1.1.6. Size of the country

The small demographic and geographical size of the country translates into a limited amount of all production factors (labour force, human capital, capital, land), and accordingly into a low domestic supply capacity. Likewise, local companies are very small, so that they have

little production capacity and face a problem of economies of scale. The domestic market is too limited to be capable of responding to a representative demand to test products, and cannot benefit from economies of scale in order to compete on international markets. This translates into difficulties in penetrating major foreign markets because of price competitiveness and volume. In most sectors, export markets appear too big for Bhutan's supply. Bhutan's small size also entails low bargaining power for Bhutanese exporters and importers: as the country has insufficient productive capacity and a small domestic market with low purchasing power, Bhutan can be considered a price-taker both for inputs and outputs. Individual enterprises in Bhutan are therefore disadvantaged in sectors based on economies of scale since they tend to produce small volumes.

Table 5: Main characteristics of Bhutan's economy

Production factor/ resource	Characteristics	Main conclusions
Geographical location	Landlocked between the People's Republic of China (PRC) and India. Low connectivity.	Conveyance essentially by roads: high transport costs. Except for India, remote from major developed markets. Disadvantaged in processing inputs and producing goods that are heavy or voluminous and for which delivery time is a major issue. Consequently, industries have to be located at the India border, for example Phuentsholing.
Political and geopolitical situation	Internal political stability and security. Unstable region with guerrillas on the Indian side.	Because of the political instability in the neighbouring region, the Samtsé industrial estate is a risky location for foreign investors; travel to Samtsé requires travel through West Bengal, India, which is subject to frequent road blockage by bandits (political parties).

Labour force	Small population: 700,000, mostly rural, unskilled, and scattered. The education system does not emphasize vocational training. Opportunities are limited to the study of engineering sciences and business at the university level.	Lack of management and technical skills. Labour shortage in most sectors. Low labour productivity. Higher cost compared to neighbouring countries (e.g. Indian and Bangladeshi labour).
Capital	Shortage of national savings. Enterprises complain about the difficulty of accessing finance. High levels of collateral are required to borrow money for investing.	Dependency on international aid and FDIs.
Land	Small country, with a land area of 38,394 sq. km. Heavily forested (72.5 percent of the country). Mostly mountainous or hilly; 10 percent covered by year-round snow and glaciers. Nearly 8 percent is permanently cultivated or used for human habitation; another 2 percent was used for shifting cultivation (tsheri), a practice now banned by the government; 4 percent consists of meadows and pastures, while the rest is either barren and rocky or scrubland.	Difficult topography and geographical location impedes the movement of both people and goods. Space constraints for most activities.
Natural resources	Numerous rivers: huge water reserves. Large forest: huge reserve of logs, although mostly not commercially usable, and of non-wood forestry products.	Huge potential in hydropower and electricity-intensive industries (e.g. the steel industry, chemicals, call centres). Potential in medicinal plants.
Cultural resources	Unique cultural identity with architectural and artistic heritage. Country largely unknown outside Asia.	Cultural tourism. Lack of authentic arts and crafts available on the market. High cost for original arts and crafts. compared to neighbouring countries.

1.1.7. Foreign Direct Investment attractiveness: an indicator of comparative advantages

FDIs are likely to be the best indicator of Bhutan's comparative advantages. As investors are rational and usually have a preference for their own country, the choice to invest abroad must be motivated by expectations of higher profit. There are two main reasons that attract FDIs to another country. The first attraction is the possibility of access to a unique resource which may be natural (commodities) or cultural (tourism), or to a production factor such as a skilled or unskilled labour force, capital or land. The second attraction is access to an effective demand.

On the supply side, Bhutan has a unique cultural heritage and natural resources, notably abundant water which can be used to generate electricity thanks to the government policy to develop hydropower facilities. On the demand side, the main reason to invest in Bhutan is to have access to the Indian market, especially since Bhutan enjoys a free trade and transit agreement with India. To a lesser extent, the possibility of access to Bangladesh and the SAFTA and BIMSTEC markets is also important. The preferential treatment granted by developed markets such as the EU or the US (General System of Preferences - GSP) to Bhutan as an Least Developed Country (LDC) can also be an attraction, even though this is an artificial and temporary incentive owing to the inevitable erosion of preferences. Other factors identified by the EDP 2010 - such as political stability, peace and security, a unique GNH development philosophy, a natural and pristine environment, a low level of corruption and pro-business policies – are not in themselves sufficient reasons to invest in Bhutan; however they significantly reinforce Bhutan's FDI attractiveness.

The revised Foreign Policy 2010 made substantial improvements in the effort to attract FDI investors. From a diversification strategy perspective, the shift from a positive list approach (with only 15 sectors open to foreign investors in FDI 2002) to a negative list in 2010 (with all sectors open except for those on the negative list and only 3 sectors prohibited) is a positive development. However, this negative list includes "mining without value addition", while according to a representative of the mining industry interviewed for the present report, there is currently no land available to set up facilities to process minerals.

During the period 2006-2009, the majority of FDIs aimed to exploit the cultural or natural resources available in Bhutan. These included tourism (6 hotels) and electricity-intensive industries (7 companies in steel, ferro-silicon, calcium carbide, silicon carbide, tin and aluminium. Since the revision of the policy in May 2010, Bhutan has approved only four FDIs. Two of these benefit from the country's cheap and reliable electricity (Lhaki Steel and Rolling Private Ltd, Dagachu Hydropower Corporation Ltd.) and the other two benefit from tourism (Bhutan Hotels Private Ltd. and Manidhee-pa-Moshin Hotels and Resorts). In addition, another eight projects that focus mainly on Bhutan's natural endowments have been approved in principle[1]. These projects include water bottling (water), cement paint (minerals), dairy products (livestock), a hotel (tourism), building material (minerals), wood industry (forests) and pharmacy (forests). In

1 *The FDI committee has given general approval to the overall idea, but has not yet looked into the details.*

2010, foreign direct investment (FDI) projects amounted to Nu 1.1 billion ($23.6 million), including the IT Park[2].

Table 6: List of FDIs by activity, foreign investor and amount invested

Sl.	Project Name	Activity (Date of approval)	Foreign Investor (FI)	Investment (million Nu)
1	Bank of Bhutan Ltd.	Banking (approved prior to FDI Policy implementation)	State Bank of India	202
2	Bhutan Resorts Pvt. Ltd (in six locations)	Hotel (approved prior to FDI Policy implementation)	Bhutan Hotels Limited, Amanresorts Group (Virgin Islands)	563
3	Bhutan Eco Ventures Pvt. Ltd. (in two locations)	Hotel (Approved prior to FDI Policy implementation)	HPL Leisure Ventures Pvt. Ltd,(Singapore)	375
4	Bhutan Health Food Products Pvt. Ltd	Specialty Fats (18.04.2006)	Heath Food Products Pvt. Ltd.(Sri Lanka)	129
5	Ugen Ferro-alloys Pvt. Ltd.	Ferro Silicon (22.05.2006)	M/s Chiragsala Sales Pvt. Ltd. (India)	308
6	G4S Security Services (Bhutan) Pvt. Ltd.	Security Services (23.05.2006)	Group 4 Holding A/S (Denmark)	31
7	United Industries Pvt. Ltd.	Specialty Fats (20.09.2006)	Rankon PLC (United Kingdom)	180
8	Dralha & R. P Steel Co. Pvt. Ltd.	Steel (15.01.2007)	R. Piyarelall Import & Exports Ltd (India)	145
9	Norbu Jewelleries (Unit of BHFP Pvt. Ltd.)	Jewellery (09.05.2007)	Heath Food Products Pvt. Ltd. (Sri Lanka)	44
10	Saint Gobain Ceramic Materials Bhutan Pvt. Ltd.	Calcium Carbide (17.05.2007)	Grindwell Norton Ltd. (India)	310
11	Samden Tech Pvt. Ltd.	VSAT and Broadband Internet Services (10.10.2007)	Washburn Properties Ltd., Visor Investment Solutions (Kazakhstan)	199
12	Quality Gases Pvt. Ltd.	Nitrogen and Oxygen 05.03.2008	Sunayana Commodities Pvt. Ltd. (India)	75

2 *See in Bhutan newspaper Kuensel, Tuesday August 9, 2011 " Four FDI projects approved", p.5*

13	Met Trade (Bhutan) Ltd.	Tin and Aluminum 06.08.2008	Met Trade (India) Limited	257
14	East West Co. Pvt. Ltd.	Hotel (20.08.2008)	Mr. Rawleigh Hazen Ralls & Mr. Stephen C. Sherrill. Mr. Gerard S.J. Moffatt (USA & UK)	115
15	SKW-Tashi Metals & Alloys Pvt. Ltd.	Silicon Carbide 25.09.2008	SKW Stahl-Metallurgical Holding AG (Germany)	1,123
16	Haven Resorts Pvt. Ltd.	Hotel 27.03.2009	Voraphot Srimahachota (Thailand)	42
17	Thimphu Tech Park Pvt. Ltd	IT Park development 30.10.2009	Assetz Property Group Pte Ltd (Singapore)	225
18	Zimdra Foods Pvt. Ltd	Dairy and agro products 17.11.2009	Nutrismart Agro Food Pvt. Ltd (India)	325
19	Druk PNB Bank Limited	Banking 21.01.2010	Punjab National Bank, India	300
20	Nak- Sel Boutique Hotel & Spa Pvt. Ltd.	Hotel 10.03.2010	PHM Foundation, USA	90
21	Druk Presidency Pvt. Ltd	Plaster of Paris (15.03.2010)	Presidency Tie-Up Pvt. Ltd., India	121
22	Himalayan Safaris Lodges Private Limited	Hotel (25.03.2010)	Eastern Safaris Pte Ltd., Singapore	71
23	Lhaki Steels & Rolling Pvt. Ltd	Steel (19.08.2010)	PCM Alloys Steel Private Limited, India	727
24	Bhutan Hotels Private Limited	Hotel (12.01.2011)	Eastport International Ltd., Samoa	604
25	Manidheepa-Mohsin Hotels & Resorts Pvt Ltd	Hotel (01.04.2011)	Dolphin Overseas Pte Ltd., Singapore	380
26	Dagachhu Hydropower Corporation Ltd.	Hydropower plant (04.04.2011)	Tata Power Company Ltd., India	816
	Total			7,757 ($172 million)

1.2. Bhutan's macroeconomic strengths and weaknesses

1.2.1. Increasing trade deficit, external indebtedness and need for hard currency

Bhutan has a structural trade deficit that has been increasing in recent years, mainly due to higher import growth: because the Bhutanese Ngultrum is pegged to the Indian rupee, the exchange rate cannot play its role of adjusting the balance of trade through depreciation as would be the case with a floating exchange rate. Consequently the country is in dire need of foreign currency earnings. The biggest impetus to economic growth is still provided by foreign aid and large-scale hydropower projects. The country's external debt has continued to increase over the last few years, notably because of a surge in public expenditure due to the building of hydropower plants that are funded more and more by Indian loans and less and less by Indian aid. In 2009, the total debt was about 60 percent of GDP. The EDP 2010 recognized that "sustainable economic growth continues to remain a major challenge. Economic growth is largely financed by external aid. The fiscal deficit is high, the balance of payments situation is weak, public debt is mounting, and foreign exchange reserves are difficult to sustain as it is not built through exports." Broadening the industrial base and diversifying the export base has become a major issue for Bhutan.

1.3. Bhutan's export performance

1.3.1. Market diversification: Bhutan's monopsonist situation vis-à-vis India

Bhutan's market diversification is extremely low. In 2010, India represented 82 percent of Bhutan's total exports, followed far behind by Hong Kong (i.e. China) and Bangladesh with respectively 12 percent and 5 percent. Consequently, Bhutan is in a monopsonist situation vis-à-vis India, which appears to be almost its unique client.

Table 7: Top 10 suppliers and markets of Bhutan (2010)

Suppliers	Import values (million Nu)	Share in %	Markets	Export values (million Nu)	Share in %
India	29,329	75.1	India	26,001	88.7
Korea South	2,005	5.1	Hong Kong	2,188	7.5
Thailand	988	2.5	Bangladesh	906	3.0
Singapore	903	2.3	Japan	132	0.5
Japan	845	2.2	Nepal	40	0.1
China	611	1.6	Singapore	20	<0.1
Nepal	586	1.5	Italy	15	<0.1
Indonesia	568	1.5	United States of America	8	<0.1
Sweden	550	1.4	Thailand	5	<0.1
Germany	362	0.9	Taiwan	3	<0.1
Rest of the world	2,329	6.0	Rest of the world	7	<0.1
Total	39,075		Total	29,324	

Source: Bhutan Trade Statistics

1.3.2. Product diversification

Bhutan's exports are highly concentrated. In 2010, the top ten products (at tariff line level) represented 76 percent of total exports. The industrial base in Bhutan is very narrow.

Table 8: Top ten exports for the year 2010

BTC Code	Commodity description	Values in Nu	Share in total exports (%)
7202.21.00	Ferro-silicon	5,653,418,465	30
8523.80.90	Other	2,145,966,525	11
7408.19.00	Other (wire of refined copper)	1,723,883,028	9
2849.10.00	Of calcium	965,824,126	5
2523.29.30	Portland pouzzolane cement	813,233,155	4
8111.00.00	Manganese and articles thereof, including waste and scrap	765,612,800	4
7214.30.00	Bars and rods of iron or non-alloy steel, twisted	738,701,845	4
7206.10.00	Ingots	595,055,232	3
2523.29.40	Portland slag cement	478,828,370	3
2849.20.00	Of silicon	449,766,865	2
Others	(Other than top ten exports)	4,582,635,214	24
Total		18,912,925,623	100

1.4. Most promising sectors in terms of export potential

Bhutan needs to identify sectors that have both significant potential for future export growth and socio-economic importance. These are the sectors that should be targeted for export promotion. The term "export potential" is used here in a broad sense and is defined as the capacity to expand exports. To assess the export potential of industries, it is necessary to take into account very diverse multi-dimensional factors, both on the demand and on the supply side.

Nineteen products or product groups were selected for an in-depth examination of their export potential, GNH impact and socio-economic impact (job creation). They represent about 88 percent of Bhutan's exports of goods, electricity and services in 2010 (Table 9). These products were selected because they had already shown well-proven export potential over the previous three years, or because they are targeted by the government, or because some private initiatives are in the pipeline. The selected industries differ substantially in terms of export value and number of products.

For instance, some product groups are made up of one or only a few items (e.g. cardamoms, potatoes, apples, mandarins, handmade paper), while others consist of more than ten items (base metals and metal products, minerals).

Table 9: Size of the selected industries in terms of export value

		Exports values ($ million)	Share in export (%)
1.	Hydropower	226	34
2.	Base metals and metal products	214	32
3.	Minerals	55	8
4.	Chemical products	37	5
5.	Tourism	36	5
6.	Mandarins	7	1
7.	Cardamoms	5	0.7
8.	Potatoes	4-6	0.6
9.	Apples	2.5	0.3
10.	Agro product	2.3	0.3
11.	Cordyceps	1	0.1
12.	Handicraft	0.1	
13.	Red rice	0.14	
14.	Matsutake	0.07	
15.	Lemon grass	0.04	
16.	Handmade paper	0.006	
17.	IT services	0	
18.	Education services	0	
19.	Health services	0	
	Subtotal	590	88
	Total (hydropower, goods and tourism)	673	100

Three main dimensions are examined: current export performance, world markets, and domestic supply conditions. Bhutan's top export earners are hydropower, metallic products, mineral products, chemical products and tourism, and these are likely to remain so, as they appear among the industries with the highest export potential. In intermediate position are potatoes, mandarins, apples and cardamoms. Despite their current size, IT services and cordyceps appear to be in the category of medium export potential. Finally, handicraft, red rice, lemon grass, matsutake mushrooms, handmade paper, education services, and health services are considered to have low export potential.

Table 10: Sector positioning according to importance and export potential

	Low potential	Medium potential	High potential
Sectors			
Important (More than $ 30 million)			Hydropower Metallic products Mineral products Chemical products Tourism
Medium importance		Potatoes Mandarins Apples Cardamoms Agro products	
Less important (Less than $1 million)	Handicraft Red rice Lemon grass Matsutake mushrooms Handmade paper Education services Health services	IT services Cordyceps	

1.5. Bhutan's business environment

Bhutan's business environment has been considerably improved over the last two decades. The government has made substantial efforts to liberalize the economy. According to the Minister of Labour, "The government is very clear that we should keep the bureaucracy very small." However, some problems remain that affect (i) local entrepreneurs, (ii) exporters, and (iii) foreign investors.

1.5.1. Challenges for entrepreneurs

Access to finance is critical. The Bhutanese banking sector is comprised of five commercial and two non- financial institutions. All of these are heavily secured. Interest rates are high (between 10-14 percent) and the collaterals required are huge: for a loan of Nu 1 million, collaterals can amount to Nu 2.5 million.

Business law. To run any business, an entrepreneur needs to obtain a licence depending on activities to be undertaken, such as retail, wholesale and industrial licences. Some industrial licences have very stringent requirements for environmental reasons.

1.5.2. Challenges for exporters: transportation and transportation costs

Bhutan relies on overland transit through neighbouring countries to make use of sea ports. Most of the overseas trade from Bhutan is currently carried out through the port of Kolkata in India, and is governed by a transit agreement regarding the movement of Bhutanese exports and imports to and from third countries. Bhutan does not have any railway lines and is served by only one airport. The nearest railhead is about thirty km from

the southern border. Roads are the principal transport mode in Bhutan. The Bhutan government has carried out a comprehensive review of the country's transport system and its impact on exports. The following constraints were noted: (i) a long distance from the nearest seaport - 950 km through Indian towns, (ii) poor road conditions, (iii) the closure of roads during monsoons, (iv) high transport costs, (v) a lack of competition in air services[3].

Exports to Bangladesh have to face several challenges. These include pre-designated times for shipment, customs-related complications and the need to change the mode of transport at different border areas. Because of these constraints, the transportation of goods has become an obstacle for both exporters and importers. As there is no tripartite treaty that regulates transit for the transportation of goods between Bangladesh-India-Bhutan, trade bottlenecks are never resolved.

Box 1. Dry Port initiative

A dry port is a yard used to place containers or conventional bulk cargo, and is usually connected to a seaport by rail or road. The Government policy initiatives to establish a dry port are designed to drastically reduce both import and export costs and customs tax administration. Documents, formalities and other logistical arrangements concerning import and export cargoes can be completed at the dry port. The dry port facility will also provide cold storage facilities such as reefer containers. These would enable highly perishable products to be sold on international markets at higher prices instead of ending up in few neighbouring countries in which Bhutan has little bargaining power. The warehouse facility at the dry port will also provide consolidation and packaging services.

1.5.3. Challenges for foreign investors

The current FDI policy still shows some constraining regulations in the following areas:

- **The labour force that can be employed by foreign investors.** Bhutan's labour shortage has been recognized by the new FDI policy, which allows foreign workers to be employed by new enterprises, but only for the first five years of operation. After five years, the ratio of expatriates to Bhutanese employees must be reduced to 1:5. This figure seems stringent in view of the endemic labour shortage in the Bhutanese labour market.
- **Profit repatriation.** Profit can only be repatriated in the currency of export earnings. Therefore, a foreign company that earns rupees can only repatriate rupees. The problem is that Indian

3 *Tashi Air will start in 2012.*

rupees are currently not convertible. Consequently, foreign companies located in Bhutan establish travel agencies to bypass this rule.

- **Foreigners' mobility within Bhutan.** Visas are issued for the whole country but route permits are required to visit different locations in the country. Bhutanese visas are issued for only one place at a time. A foreign investor who wishes to travel to another location in the country needs to obtain a new route permit visa. In other terms, foreigners face internal borders with internal check points.

1.6. Companies' export readiness

Export readiness differs from one sector to another. It can be evaluated by taking into account the number of exporting companies, their modes of export (active or passive), product quality and price competitiveness, and their level of market intelligence and marketing skills.

Numerous sectors in Bhutan are characterized by "passive exports", i.e. local companies do not actively search for clients themselves but rely on foreign middlemen to find them. For instance, Indians are predominant in finding clients for Bhutanese exports of potatoes, apples, mandarins and cardamoms. Likewise, metallic and chemical products are essentially exported through Indian companies. Handicraft is exported mostly through tourists. There are some signs of change: for example, the only company in Bhutan that exports red rice plans to become a more active exporter by developing its own packaging and selling its products abroad directly. However in most sectors, exporters lack support services in the form of market information, the setting of national quality and grading standards, laboratory facilities, training facilities etc. In many sectors, one of the major obstacles to the growth of export and export earnings is an inability to process the commodities, and thus to add value and diversify products.

Table 11: Number of exporting companies, mode of export, product quality, and marketing skills, by sector

Sector	Number of exporting companies	Mode of export	Product quality and price competiveness	Market intelligence and marketing skills
Hydropower	1	Agreement with the Government of India.	Cheap and reliable electricity.	Not required.
Metallic products	6	Indian traders are actively involved.	Quality meets international standards. Cheap because of low electricity cost.	None.
Minerals		Indian traders are actively involved.	Quality meets international standards.	Not required.

Chemical products		Indian traders actively involved.	Quality meets international standards. Cheap because of electricity cost.	Not required.
Tourism		Tourism package ($200/ day, soon $250) except for luxury.	High-end service: three stars, four-five stars (luxury).	
Mandarins/ oranges	30	Auction markets in Samtsé, Gelephu, Samdrpjongkhar and Phuentsholing: exports determined by Indian merchants.		None.
Cardamoms	10	Auction markets in Samtsé, Gelephu, Samdrpjongkhar and Phuentsholing: exports determined by Indian merchants.	High demand and fetches better price.	Not required.
Potatoes	Several (FCB is a major one)	Auction markets in Samtsé, Gelephu, Samdrpjongkhar and Phuentsholing exports determined by Indian merchants.	High demand by Indian consumers because of quality and taste.	None.
Apples	Several	Auction markets in Samtsé, Gelephu, Samdrpjongkhar and Phuentsholing exports are determined by Indian merchants.	Good demand. Cheaper than US or Fiji apples.	None.
Agro product	4 (Tashi, Agro-Industry, Zimdra, Druk)	Find own clients through personal relationship.	Limited supply.	Limited to India, Nepal and Bangladesh.
Cordyceps	11 (2006)	Price fixed through open auction through help of govt.	Products exported in bulk. High product quality.	None.
Handicraft	10	Mostly passive, through tourists.	Low product quality.	None.

Red rice	1	Exported in bulk. Packaging and grading done in US and Europe. Finds own clients.	Niche market, unique characteristics.	High, soon own packaging. Organic certification.
Matsutake mushrooms[2]	10	Through contract farmers and exported mainly to Japan (picked directly in the forests by poor communities).	Products exported in bulk. High product quality.	Harvested and exported within 24 hours.
Lemon grass	1	Finds own clients. Through contract distillers.	Need to compete with Indian products.	Organic certification.
Handmade paper	1	Exported in less quantity, mostly used in Bhutan.	Sheets (high quality).	Not required.
IT services	1	IT Park, business incubator, attract FDIs.	Low labour productivity. English skills of the labour force.	
Education services	0	Education City project, attract FDIs.		
Health services	0	Attract FDIs.		

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2 VISION AND OBJECTIVES: WHERE DOES BHUTAN WANT TO GO?

©Tshering Wangdi

CHAPTER 2. VISION AND OBJECTIVES: WHERE DOES BHUTAN WANT TO GO?

The aim of the Royal Government of Bhutan is to formulate a national export strategy that will broaden the country's industrial base and diversify its export base, in order to increase exports as leverage for Bhutan's socio-economic progress.

It is important to keep in mind that "strategy" is also a microeconomic concept, which is relevant for a company because it applies to a cohesive organization with a single chain of command. The concept of an "export strategy" is therefore first and foremost applicable to companies; indeed, economists rarely use the word "strategy", whereas the term is in constant use in the business community. However, the concept of a "national export strategy" may be usefully applied to the nation as a whole, especially in order to differentiate strategy from central planning[4].

Export strategy usually has two main objectives: export growth and export diversification. Export diversification is usually considered to be the main way to increase exports, although export growth does not automatically require diversification. At the national level, an export strategy should be linked to the major objectives of the Government at macroeconomic and sectoral levels, within the framework of the government's development philosophy.

2.1. Bhutan's macro objectives: economic self-reliance and full employment by 2020

Bhutan's vision of development, as expressed in the EDP 2010, is "to promote a green self-reliant economy sustained by IT knowledge society guided by the philosophy of GNH." Two major objectives have been set: to achieve (1) economic self-reliance and (2) full employment (97.5 percent) by the year 2020. The EDP 2010 emphasizes that the government should also try to achieve a minimum annual economic growth rate of 9 percent with the aim of becoming a middle-income nation by 2020. Bhutan's strategy for meeting these objectives, as expressed in the EDP 2010, remains general: "(1) Diversify the economic base with minimal ecological footprint. (2) Harness and add value to natural resources in a sustainable manner. (3) Increase and diversify exports. (4) Promote Bhutan as an organic brand. (5) Promote industries that build the Brand Bhutan image. 6. Reduce dependency on fossil fuel especially in respect to transportation."

2.2. Bhutan's sectoral objectives: services as top priority

EDP 2010 establishes a list of 39 priority growth areas that have the highest potential to generate wealth, employment and sustainable growth within the framework of GNH. These are the areas that should consequently receive encouragement and support from the government. They are grouped into the following 8 categories: high-quality green services; agro- and forest-based production; energy; the information and cultural industry; natural resources; transportation and related services; construction; other manufacturing. However, the development of services is the top priority for the Royal Government of Bhutan because it strives to favour environmentally-

4 *See definition of a strategy p.10.*

friendly sectors in accordance with the GNH philosophy.

2.2.1. Vision for services: an IT-enabled knowledge society for high-end services (education, IT) and a thriving high-end tourism industry

The Royal Government of Bhutan has a long-term vision for developing Bhutan into an IT-enabled knowledge society which would be a world-class regional hub for high-end services (education, health, finance, and ICT services) and would enjoy a thriving high-end tourism industry. Bhutan's 10th five-year plan (2008-2013) recognizes tourism as a priority industry for economic growth. In 2008, the Royal Government embarked on advancing the economy through the 'Accelerating Bhutan's Socio-Economic Development' (ABSD) initiative, whereby tourism was recognized as a priority sector. Bhutan's policy is to encourage luxury tourism, in order to maximize revenues while ensuring a minimum impact on the environment and conserving Bhutan's identity, since the expansion of tourism raises concerns in terms of the preservation of a genuine cultural identity.

2.2.2. Vision for agriculture and forestry: a shift to commercial and organic production

Bhutan is predominantly an agrarian economy. About 69 percent of its population lives in rural areas. It is no wonder that in 2009 agriculture and forestry employed about 65 percent of the labour force, i.e. 204,000 people out of 312,000. Of these, 152,700 were unpaid family workers and 41,600 worked on their own account and were self-employed. Only 2,400 were regularly paid employees, while there were 7,400 casually paid employees. A large proportion of Bhutan's population derives its living from subsistence agriculture, which has low returns and productivity. Although agriculture and forestry provide a livelihood for 66.6 percent of the population, agriculture accounts for only 18 percent of Bhutan's GDP (NSB 2010). The main cash crops exported are mandarins, potatoes, cardamoms, and apples, which provide only seasonal incomes.

According to the NSB 2009, the Ministry of Agriculture has maintained three basic objectives over the five year plans: (i) to preserve the environment, (ii) to increase rural income, and (iii) to attain self-reliance in cereals and essential oil crops. Two new objectives are part of the new vision of agriculture: the encouragement of commercial farming, and organic farming. The government offers tax incentives to achieve these two objectives: a 5-year tax break to farmers or companies engaged in commercial farming and an additional 5-year tax break to grow organic produce.

Table 12: Main exported products in agriculture and forestry (2010)

Product	Export values ($ million)	Main market destinations
Mandarins	7.2	1. Bangladesh, 2. India
Potatoes	4.3-5.9	1. India
Particle board	5.7	1. India
Cardamoms	4.8	1. India, 2. Bangladesh
Apples	2.5	1. Bangladesh, 2. India
Codices	1	1. Hong Kong, 2. Taiwan
Red rice	0.14	1. USA, 2. Switzerland
Matsutake	0.07	1. Japan, 2. India

Source: Bhutan Trade Statistics

Surprisingly, forestry products are poorly exported, considering that forests cover about 72 percent of the country. However, according to the Forestry Department, only 14 percent of the country is harvestable, in areas that are scattered across the country (notably because of mountains and national parks). The commercial harvesting potential is therefore limited, especially as Bhutan's constitution fixes a minimum of 60 percent of the country's area that must remain covered by forests. Sustainability and environmental concerns guide Bhutan's forest policy. Forestation is notably required for the conservation of water, which could impact hydropower potential. Domestic demand for timber for all purposes is about 1.2 million cubic meters, while current domestic production is only 1 million cubic meters. In other terms, domestic supply does not currently reach local demand, especially in urban centres for construction purposes. In addition, the export of raw logs and sawn timber is banned: timber needs to be substantially transformed before being exported. Consequently, the potential of forest land lies rather in non-timber products: medicinal herbs (cordyceps), mushrooms (matsutake), or lemon grass oil.

2.2.2.1. Commercial production: About 90 percent of Bhutanese still make a living from subsistence farming and are scattered in sparsely populated villages across the Himalayas. The majority breed cattle and cultivate the land. People continue to live in valleys that are isolated from one another, farming narrow terraces that are cut into the steep hill slopes. Access to irrigation is also a problem for small farmers. There is therefore a need to create commercial farms in order to improve the quality and yield of Bhutan's agriculture. There are already some examples of commercial farming (coffee and hazelnut) which have involved farmers and the MoAF.

2.2.2.2. Organic production: Bhutan's organic strategy is not yet ready. Organic certification is technical and expensive. Even a minute amount of pesticides found in a product is enough to disqualify it. If only a few farmers use pesticides the whole production can be disqualified. Some products may be more easily certified as organic, such as mushrooms since they grow wild. The shift to organic will take time to be implemented and in any case will be very gradual. The major question is whether the farmers will capture the premium. The shift to organic also prevents the country to benefiting from the "green revolution" experienced by most developing countries that are able to use phyto-sanitary products: in the

absence of pesticide and fertilizers, Bhutan's agriculture will remain low yield.

2.2.3. Vision for energy: electricity as the engine of development

Over the last two decades, the development of the hydropower sector has been funded by India. The commissioning of the hydropower projects mainly drives Bhutan's rapid economic growth. Three more power-plants are in the pipeline (Punatshangu I- 870 MW, Punatshangu II- 992 MW, and Mandchegu – 670 MW). The hydropower industry is capable of ensuring incomes for the coming generations. The vision for the future is therefore that Bhutan's exports should be driven by hydropower and that their share in total exports should increase. However, the risk exists of a "Dutch disease" effect with several unfavourable consequences: the government could develop a "rent holder" mentality and be less motivated to make reforms and investments to encourage other industries; the hydropower industry could capture the best skilled workers who would otherwise have been available to work in other industries; and the overall standard of living in Bhutan could increase faster than overall labour productivity, reducing the competitiveness and development of other industries. In conclusion, rather than being a leverage for industrialization, hydropower could be a brake.

2.2.4. Vision for manufacturing: targeting green high-value and low-volume industries

Manufacture accounts for about 8 percent of Bhutan's GDP (NSB, 2010). Considering Bhutan's constraints of transportation and space, as well as the government's concern to preserve the environment, the vision for manufacturing is to develop green, high-value, weightless and low-volume industries.

2.2.5. Vision for mining: process before export

The government's concern is to industrialize the country. Therefore, its vision consists of adding value to all minerals extracted in Bhutan. For this reason, it has banned the export of raw materials, which must now be processed before being exported.

2.3. Trade-offs between the export strategy and the government's development philosophy

2.3.1. Export potential, GNH impact and socio-economic impact

According to the EDP 2010, "Bhutan's economic development policy continues to be guided by the overarching philosophy of Gross National Happiness based on the four pillars of sustainable economic development; preservation and promotion of culture and tradition; conservation of environment and good governance." GNH has been adopted as the guiding development philosophy of Bhutan, since it strives to take into account many more dimensions than GDP growth (see Box 2). According to this philosophy, development is a process that seeks to maximize happiness rather than target merely economic growth, hence the need to include not only material but also non-material dimensions of development[5]. Consequently, the development of certain industries may conflict with the Bhutanese vision as defined by the GNH philosophy of equitable socio-economic development, the conservation of the environment, the preservation and promotion of culture and the promotion of good governance.

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5 Bhutan ranks higher in terms of GDP per capita (PPP) than in terms of the HD index, respectively 104 ($5,420 in 2010) as against 131 (2009). Bhutan falls into the category of Medium Human Development.

Box 2. Gross National Happiness: proposal for a distinctive development philosophy

Gross National Happiness (GNH) is an attempt to define the quality of life in terms that are more holistic and psychological than those of the Gross National Product. The term, coined by His Majesty King Jugme Singye Wangchuk, serves as a unifying philosophy for development planning and management. While conventional development models stress economic growth as the ultimate objective, the concept of GNH is based on the premise that the true development of human society takes place when material, spiritual and emotional wellbeing occur side by side to complement and reinforce each other.

In the sphere of public policy, the GNH philosophy is to operate on the following four main pillars:

First pillar: equitable socio-economic development, ensuring equity among individuals and communities as well as among regions to promote social harmony, stability and unity and to contribute to the development of a just and compassionate society.

Second pillar: conservation of the environment, ensuring that development pursuits are within the limits of environmental sustainability and are carried out without impairing the biological productivity and diversity of the natural environment.

Third pillar: the preservation and promotion of culture, instilling appreciation of the cultural heritage and preserving spiritual and emotional values that contribute to happiness and cushion the people from the negative impacts of modernization.

Fourth pillar: the promotion of good governance: developing the country's institutions, human resources and systems of governance and enlarging opportunities for people at all levels to fully participate and make effective development choices that are true to the circumstances and needs of their families, communities and the nation as a whole.

To further the GNH philosophy, 9 domains have been distinguished, with for each a list of indicators designed to make it operational:

(1) Psychological wellbeing (11 indicators). The domain of psychological well-being includes satisfaction with all elements of life, life enjoyment, and subjective well-being. As collective happiness is the main goal in a GNH society, psychological well-being is of primary importance in gauging the success of the state in providing appropriate policies and services. Indicators of psychological well-being have been developed together with a psychological well-being index that covers three areas: general psychological distress indicators, emotional balance indicators, and spirituality indicators. The effect of these indicators has been calculated by examining the rate of general psychological distress, prevalence rates both for negative emotions (jealousy,

frustration, selfishness) and positive emotions (generosity, compassion, calmness), the effect of spiritual activities like meditation and prayers, and the consideration of karmic effects in daily life.

(2) Ecological diversity and resilience (5 indicators). By examining the state of Bhutan's natural resources, the pressures on ecosystems, and different management responses, the domain of ecological diversity and resilience aims to assess the impact of domestic supply and demand on Bhutan's ecosystems. However, since most of the objective measurements of ecological diversity and resilience are determined through surveys by other agencies, the GNH survey was designed to gather information on perceptual data on ecology. The indicators for ecological diversity and resilience are as follows: ecological degradation indicator, ecological knowledge indicator, and deforestation indicator.

(3) Health (7 indicators). The health indicators assess the health status of the population, the determinants of health and the health system. Health status indicators show information on self-rated health, disabilities, body mass index, and the number of healthy days per month. Health indicators also cover the prevalence of knowledge about HIV transmission and breast-feeding practices. Lastly, barriers to health services are assessed in terms of walking distance to the nearest health facility, which includes both western and indigenous systems. The health indicators are as follows: health status indicator, health knowledge indicator, and barrier to health indicator.

(4) Education (4 indicators). Education contributes to the knowledge, values, creativity, skills, and civic sensibility of citizens. A domain such as education is not intended merely to measure the success of education in itself, but rather to assess its effectiveness in working towards the goal of collective wellbeing. The domain of education looks at a number of factors: participation and skills, among others. However, only a limited number of variables could be included in the education index. The indicators are as follows: education attainment indicator, Dzongkha language indicator, and folk and historical literacy indicator.

(5) Culture (9 indicators). This domain focuses on cultural diversity and resilience. The maintenance of cultural traditions has been one of Bhutan's primary policy goals, as traditions and cultural diversity contribute to identity, values, and creativity. The domain focuses on the diversity and strength of cultural traditions. It takes into account the nature and number of cultural facilities, language use patterns and diversity, and participation in community festivities and traditional recreations. The indicators estimate core values and perception of changes in values and traditions. The indicators of cultural diversity and resilience consist of: dialect use indicator, traditional sports indicator, community festival indicator, artisan skill indicator, value transmission indicator, and basic precept indicator.

(6) Living standards (8 indicators). The domain of living standards covers the basic economic status of the people. The indicators assess the levels of income at the individual and household

levels, the sense of financial security, room ratios, food security, and house ownership. The indicators were also constructed to identify economic hardships as shown by the inability to repair houses, the inability to contribute to community festivities, and the purchase of second-hand clothes. They consist of: income indicator, housing indicator, food security indicator, and hardship indicator.

(7)Time use (2 indicators). The domain of time use is one of the most effective windows on the quality of life, as it analyzes the nature of time spent within a 24-hour period, as well as activities over longer periods of time. An important function of tracking time use is to acknowledge the value of non-work time for happiness. The time available for non-work activities such as sleeping, personal care, community participation, education and learning, religious activities, social and cultural activities, sports and leisure and travel can directly indicate a diversity of activities that adds to a rich life and contributes to levels of happiness. The measurement of time, devoted unpaid work activities like the care of children and sick members of the household, and maintenance of the household, can provide a proxy measure of contribution made by unpaid activities to welfare, although the value of such activities is completely underestimated in national accounts. In the GNH index, the time-use component is divided into benchmark indicators of hours of sleep and of total working hours.

(8) Community vitality (16 indicators). The domain of community vitality focuses on the strengths and weaknesses of relationships and interactions within communities. It examines the nature of trust, belongingness, the vitality of caring relationships, safety in home and community, and giving and volunteering. These indicators can track changes in adverse effects on community vitality. The community vitality indicators consist of: family vitality indicator, safety indicator, reciprocity indicator, trust indicator, social support indicator, socialization indicator, and kinship density indicator.

(9) Good governance (7 indicators). The domain of good governance evaluates how people perceive various government functions in terms of their efficacy, honesty, and quality. The indicators include human rights, leadership at various levels of government, performance of government in delivering services and controlling inequality and corruption, peoples' trust in media, judiciary, and police. The indicators of good governance comprise: government performance indicator, freedom indicator, and institutional trust indicator.

The Centre for Bhutan Studies has developed a simple GNH screening tool. The main objective of this tool is to assess systematically the impacts of any policy and project on GNH, thereby simultaneously selecting GNH-enhancing policies and projects and rejecting projects and policies that adversely affect key determinants of GNH. CBS has developed screening questions that cover the nine domains of GNH. Each screening question has a 4-point scale ranging from 1 to 4, ranked from the most negative to the most positive score: "negative", "uncertain", "no impact", or "positive". However, at this stage, the GNH philosophy still seems under development: it contains too many indicators of widely differing importance. As well, some variables,

such as "community vitality", or "cultural diversity", are not well defined or are difficult to quantify. The philosophy therefore needs to be simplified and rationalized. So far, ten public policies have been screened. Meetings with policy makers or policy advisers in Bhutan have shown that they had themselves have only a vague idea of what constitutes GNH philosophy, and are not particularly concerned about its application. Most could cite the four pillars, which are general and common to any developmental approach, but were unable to elabourate further on what makes GNH unique. One of the reasons for this is that the Centre for Bhutan Studies that develops the GNH philosophy is not considered as a reference in the ministries for the design of policies.

See www.gnhc.gov.bt and www.grossnationalhappiness.com and www.bhutanstudies.org.bt

Our approach is as follows: for each sector under review, we estimate the impact of export development on a selected number of GNH dimensions, according to the following 4-point scale: "negative", "uncertain", "no impact", or "positive" (Table 13). We have selected for review the domains that are best for comparative purposes and also the most relevant for a sectoral analysis. Those retained for the purposes of this report are the following: "psychological well-being", "education", "conservation of the environment", "preservation and promotion of culture" and "community vitality". Concerning the domains "psychological well-being" and "education" we evaluate the direct impact on the people working in industry. For the other domains, we evaluate the impact on industry itself. The "GNH impact" is the simple average of the scores in each of these domains.

To these domains we have added the "job creation effect". Although this factor is not included among GNH indicators, we believe that employment is the best proxy for socio-economic impact. To determine the job creation effect, we have classified sectors according both to current employment figures and to projected job creation over the next three years. Within this indicator, we distinguish three categories: (1) fewer than 2,000 jobs (low impact), (2) between 2,000 and 10,000 (medium impact), and (3) more than 10,000 (high impact).

However, the evaluation of the job creation effect presents three major difficulties:

- Firstly, some sectors offer only part-time jobs, as is the case for agricultural products, a sector in which employment needs occur during the harvesting season. Also, some sectors provide only a complementary income. Consequently, the number of jobs needs to be calculated in terms of Full Time Equivalent (FTE) employments: for instance, if a sector employs workers for only 3 months a year, their number must be divided by 4 to be comparable with a sector employing people the whole year.
- Secondly, it is difficult to assess the indirect employment that is generated by a sector, and this can differ significantly from one sector to another.
- Finally, it is also difficult to assess how many people rely on the income of a given worker. We usually consider the average size of a household to be 5-6 persons. In 2009, 14,700 people were employed in the manufacturing sector as against only 500 in mining and quarrying.

Table 13: Impact on selected GNH pillars and domains and socio-economic impact (job creation) by sector

Sector	Psychological well-being	Education	Conservation of the environment	Preservation and promotion of culture	Community vitality	**GNH impact**	**Socio-economic impact (job creation)**
Hydropower	Uncertain	Positive	Positive	Positive	Positive	**Positive**	High (70,000 for construction + 8,000 after)
Metallic products	Negative	Positive	Negative	Negative	Negative	**Negative**	Low <2,000
Minerals	Negative	Positive	Negative	Negative	Negative	**Negative**	Low (about 500)
Chemical products	Negative	Positive	Negative	Negative	Negative	**Negative**	Low < 1,000
Tourism	Positive	Positive	Positive	Positive	Positive	**Positive**	High (17,000: 8,000 direct+ 9,000 indirect)
Mandarins / oranges	Positive	Negative	No impact	No impact	Positive	**No impact**	Medium
Cardamoms	Positive	Negative	No impact	No impact	Positive	**No impact**	Medium
Potatoes	Positive	Negative	No impact	No impact	Positive	**No impact**	Medium (income to 13,000 households)
Apples	Positive	Negative	No impact	No impact	Positive	**No impact**	Low <2,000

Agro Product	Negative	Positive	No impact	No impact	Positive	**No impact**	Low <500
Cordyceps	Positive	Negative	No impact	No impact	Positive	**No impact**	Low <2,000
Handicraft	Positive	Negative	No impact	Positive	Positive	**Positive**	High 8500 + 65% of agriculture labour force
Red rice	Positive	Negative	No impact	No impact	Positive	**No impact**	Low 70 FTE
Matsutake	Positive	Negative	No impact	No impact	Positive	**No impact**	Low <2,000
Lemon grass	Positive	Negative	No impact	No impact	Positive	**No impact**	Low 600 FTE (30% of income of 2,000)
Handm*a*de paper	Positive	Negative	No impact	Positive	Positive	**Positive**	Low <2,000
IT services	Positive	Positive	Positive	Positive	Positive	**Positive**	Medium 2,200 (700 direct + 1500 indirect)
Education services	Positive	Positive	No impact	Positive	No impact	**Positive**	Low <2,000
Health Services	Positive	Positive	No impact	Positive	No impact	**Positive**	Low <2,000

Combining export potential and GNH impact identifies some trade-offs that can assist the choices made by policy makers (see Table 14 below). Some sectors considered as having high export potential show a negative GNH impact: metallic products, mineral products, and chemical products. Conversely, some sectors with low export potential show a positive GNH impact: handicraft, handmade paper, education services, and health services.

Sectors demonstrating the best positioning are hydropower and tourism, which combine high potential and high GNH impact. These are followed by IT services which show medium export potential together with a positive GNH impact. Then come agro products, potatoes, mandarins, apples, cardamoms, and cordyceps, with medium export potential and a neutral GNH impact.

Table 14: Sector positioning according to export potential and GNH impact

	Negative GNH impact	Neutral GNH impact	Positive GNH impact
High potential	Metallic products Mineral products Chemical products		Hydropower Tourism
Medium potential		Agro products Potatoes Mandarins Apples Cardamoms Cordyceps	IT services
Low potential		Red rice Lemon grass Matsutake mushrooms	Handicraft Handmade paper Education services Health services

In terms of job creation, an analysis that combines export potential and socio-economic impact can clearly indicate other possible trade-offs for policy makers (see Table 15 below). Three sectors show both high export potential and a high socio-economic impact that favours job creation: hydropower, tourism, and handicrafts. However there are three sectors with high export potential that create few jobs: metallic products, mineral products and chemical products. There is also the opposite case: the handicraft sector, for example, has low export potential but generates a high socio-economic impact. Some products are interesting in that they show both medium export potential and a medium socio-economic impact; these include potatoes, mandarins and cardamoms.

Table 15: Sector positioning according to export potential and socio-economic impact

	Low socio-economic impact (fewer than 2,000 jobs)	Medium socio-economic impact (between 2,000 and 10,000 jobs)	High socio-economic impact (more than 10,000 jobs)
High potential	Metallic products Mineral products Chemical products		Hydropower Tourism
Medium potential	Agro products Apples Cordyceps	Potatoes Mandarins Cardamoms IT services	
Low potential	Red Rice Lemon Grass Matsutake mushrooms Handmade paper Education services Health services		Handicraft

2.3.2. Preservation of culture: the change of mentality required for economic development

Development implies the need for a change of mentality. As stated by the EDP 2010, "Economic reforms lead not only to tangible benefits but also in changing the attitudes and work ethics of a society. Therefore, the Policy will seek to bring about a change in the attitude of the people. The promotion of a rational and scientific temperament, dignity of labour, spirit of adventure, entrepreneurship, creativity and innovation with ethics and hard work are attitudes that are essential for the success of a market-based economy." In 2008, Bhutan changed the form of its government to that of a Democratic Constitutional Monarchy. Like the shift towards market economy industrialization, the shift towards democracy is not neutral in terms of mindset. To succeed in this transition process, Bhutanese traditional mentalities have to evolve in several ways:

(i) A shift from a "farmer" to a "trader" mentality, from a "risk-averter" to a "risk-taker" mindset. The Bhutanese population lives mostly in rural areas and is composed for a large part of farmers owning small-scale farms. As in subsistence agriculture everywhere in the world, farmers focus primarily on growing enough food to feed their families; their mentality is usually one of a risk-averter since they give priority to security. Consequently, they prefer to grow various kinds of crops rather than focusing on only one cash crop and trading the surplus. There are other cultural reasons that reinforce the trader mentality. In Bhutan, traders were traditionally nomads; they were perceived as having no land or rice fields and as being obliged to trade by necessity. Moreover, Bhutanese culture has never been very conducive to trading and entrepreneurship. Sometimes, in border towns, Bhutanese retailers sell their licences

informally to Indian merchants (business fronting).

(ii) A shift from a "public sector" to a "private sector" mentality. This change is already underway. Under the monarchy, being a civil servant of the royal administration of Bhutan has always been perceived as the most prestigious career. However, since the shift towards a democratic monarchy in the years 2006-2008, the civil service has lost a part of its prestige and power in Bhutanese society. Young adults seem more and more attracted to working within the private sector.

(iii) A shift in public-private partnership. Progress has also been made in developing the PPP approach. Examples are the IT Park and the Education City. The ministry is also pursuing the model of Industrial Infrastructure Development. The ADB and the World Bank/IFC are working out, together with the Government, the institutional arrangements for implementing the PPP policy.

(iv) A shift in time use and in working conditions. Some industries offer poor working conditions, both because the tasks are extremely repetitive and because they are dangerous for workers' health. This is the case, for example, in factories producing ferro-alloys or calcium carbide. In addition, the move to manufacturing industries requires a competitive unit labour cost (ratio labour productivity to labour cost) that affects workers. There are two ways to increase labour productivity: either to increase the number of working hours, or to improve the quality of the labour force. The former option is the easiest way for a developing country, and indeed most developing countries that have succeeded in catching up with developed economies (Japan, Korea, Taiwan, or China), have proceeded by requiring high weekly working hours. However, there are increasingly success stories with the second option – focusing rather on improving the quality of the labour force - especially for countries which are developing niches in the provision of high-quality services. This second option is the development strategy chosen by Bhutan. In order to succeed, the country will require sustained, long-term efforts to raise the quality of education, build synergies between research and applications for business and production, and seek technology transfers through FDI that will enable Bhutanese goods to be included within global value chains.

2.4. National export tactic, national export strategy, national strategy for exports

2.4.1. National export tactic or national export strategy?

The government needs to choose whether it wants to build the country's development on the basis of its current comparative advantages or whether it wants to modify these advantages. In most cases, governments tend to combine the two approaches: in the short term, they build on the experience and revenues generated by the current comparative advantages in order to implement a long-term policy designed to change comparative advantages over time. In other words, the government strives to optimize its given resources in order implement to a "national export tactic" which will change the playing field through a national export strategy. The choice of a national export strategy implies a long-term vision in which most constraints can be changed, especially those relative to the driving forces of the economy, i.e. production

factors (labour force, capital and technological change). Factors such as demographic and technological change therefore have to be part of the exercise. A national export strategy also requires a systemic approach that aims to build networks among the actors and institutions that can play a critical role in the development training of the labour force and in the emergence of companies.

2.4.2. National export strategy or national strategy for exports? Picking the winners or letting the market play

A national export strategy can follow two main philosophies: on the one hand, the government can choose to play the leading role, picking the "winners" or industries it will support; on the other hand, it can choose rather to concentrate primarily on creating an enabling environment for new industries to emerge. The former is an approach that is very close to central planning (especially if it is funded by public capital) and can be called a "national export strategy", while the latter proceeds from a liberal and market-driven approach and can be called a "national strategy for exports". Most countries in fact combine something of both approaches. However, the general trend today is to facilitate and monitor instead of implementing directly, with governments focusing more and more on creating a favourable business and investment climate. The choice of a "national strategy for exports" would represent a significant change for Bhutan, since the country has been characterized so far by a welfare-state culture.

Diversification is first and foremost an entrepreneur's business. There are two kinds of diversification: market diversification and product diversification. Market diversion is often the easier to achieve as it concerns only the search for new market opportunities. However, new markets require responsiveness to new needs, which can sometimes result in significant changes both to the product and to the marketing strategy. Changes to the product can include upgrading, changing process technology, and modifying the product to meet requirements including Technical Barriers to Trade (TBT) or Sanitary and Phyto-Sanitary (SPS) standards. Changes in the marketing strategy can concern packaging and advertising. In the case of market diversification, market analysts together with businessmen can play a useful role by supplying business and trade information.

On the other hand, product diversification is much more difficult to carry out. It can be attempted in two different ways:

(i) Product diversification linked to the current industrial basis. Product differentiation may then be vertical (a new quality) or horizontal (a new variety). It may also be achieved by value addition (a new process or a new segment of production). For this kind of diversification, policy makers, economists and industrial experts can also play a useful role by providing information for businessmen.

(ii) Product diversification that is not linked to the current industrial basis. In this case, diversification policies are much more risky and highly speculative, and opportunity costs can be huge, especially for a government with limited resources. Successful experiences show the importance of factors such as foreign investors (e.g. Intel in Costa Rica) and/or expatriate nationals (e.g. overseas Chinese in Taiwanese microelectronics). The role of entrepreneurs is indeed critical.

3 SHAPING ACTORS, SHAPING FACTORS AND STRATEGY: HOW DOES BHUTAN GET THERE?

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CHAPTER 3. SHAPING ACTORS, SHAPING FACTORS AND STRATEGY: HOW DOES BHUTAN GET THERE?

To change the country's comparative advantage, a long-term strategy is required which implies shaping actors and shaping factors as part of a systemic approach. In the long run, potential growth is determined by factors such as demography and technological change, i.e. the size of the labour force and labour productivity. In turn, labour productivity is determined by innovation, as entrepreneurs convert technological change into marketable products or processes. As the French philosopher Jean Bodin argued, "There is no wealth but men". Wealth creation relies on entrepreneurs and workers.

But strategy is also a systemic concept requiring a systemic approach. In other terms, the initiatives of the actors that are shaping growth need to be linked and coordinated as much as possible. In view of creating a knowledge-based economy, a national innovation system approach therefore seems to be the most appropriate.

3.1. Shaping actors, shaping factors and strategy: how does Bhutan get there?

3.1.1. Increase the labour force

In 2010, the working age population (15-65+) amounted to 484,100, with 152,200 who were not part of the labour force. According to the Population Projections of Bhutan (2005–2030), NSB, Bhutan's population should reach 886,523 in 2030, with a working-age population of 647,857 (source: NSB 2009). The labour force currently stands at 331,900, with 320,900 employed (unemployment rate: 3.3 percent). Bhutan's labour force is both small and widely scattered. The country has an urban population of only 196,111, while 438,871 live in rural areas. According to an expert from the Ministry of Labour, "The country has only about 100,000 people to do skilled work, not more than that". Most sectors experience a labour shortage and need to hire workers from neighbouring countries, notably India. This is especially the case in manufacturing industries and industrial estates. Since local companies use mainly Indian equipment and technology, the engineers and the technicians needed to operate them come from India as well. For non-technical jobs in manufacturing industries, there is an age limit of 20-30 years, whereas for technical jobs there is no age limit.

There are three ways to increase the labour force:

- Take advantage of the recent acceleration in the migration of rural dwellers to cities and the increasing pool of unqualified young rural migrants who gather in the periphery of the major towns. These young people need to be trained for a variety of jobs in the manufacturing and service sectors. A proactive training policy would help to integrate them into the new economy, prevent social tensions and respond to the demands of the economy.
- Make legislation governing the employment of foreign workers less stringent, while aiming at a selective immigration policy.
- Improve labour productivity. This option is described more fully in 3.1.2.

3.1.2. Improve labour productivity

In most sectors, Bhutan's exports are curbed by production costs, which are high apart from electricity. The government and other stakeholders need to pay attention to the high unit labour cost in Bhutan (i.e. the ratio labour cost/labour productivity): salaries are relatively high, while labour productivity is relatively low. Overall, labour productivity is lower in Bhutan than it is in India. Indians who come to Bhutan to work in the factories are usually already experienced. In general, once a certain level of technicality is involved, Indians usually have more knowledge and are more productive.

Table 16: Average monthly wage in Bhutan by major occupations[6]

Major Group	Average monthly wage in Nu
Legislators, senior officials and managers	27,000 ($587)
Professionals	16,000 ($348)
Technicians and associate professionals	7,000 ($152)
Clerks	8,000 ($174)
Service workers and shop and market sales workers	9,000 ($196)
Craft and related workers	6,000 ($130)
Plant and machine operators and assemblers	7,000 ($152)
Elementary occupations	6,000 ($130)

Source: Job Prospecting Report 2009

3.1.2.1. Bhutan's labour force needs to be better trained. The government should envisage including a training component in the incentives offered to foreign investors, notably in the IT Park. In exchange for training workers, foreign companies would be offered tax holidays or other kinds of subsidies.

In parallel, the intake capacity of the country's education system should be increased, especially at university level (in engineering and business) and in the vocational training institutes. So far the education system has limited intake capacity. In 2010, the eleven institutes that make up the Royal University of Bhutan together recruited only 1,580 students. The quality of the curricula also needs to be improved. Only the Jigme Namgyel Polytechnic offers courses in mechanical engineering (31 students), electrical engineering (52 students) and civil engineering (98 students).

6 *119 big companies were selected based on their employment capacity. According to the Ministry of Labour, this is the main reason why the average wage for technicians and machine operators is quite high. Moreover, the job prospecting exercise does not capture small sectors such as petty contractors, small travel agents and hotels, or the power sectors.*

Table 17: Intake capacity of institutes under the Royal University of Bhutan (2010)

Institute under RUB	Number of students recruited
Gaeddu College of Business Studies	203
Sherubtse College	386
Paro College of Education	209
Samtsé College of Education	178
Jigme Namgyel Polytechnic	181
College of Science and Technology	152
Royal Institute of Management	96
College of Natural Resources	88
Royal Institute of Health Sciences	52
Institute of Language and Cultural Studies	30
National Institute of Traditional Medicine	6
Total	1,581

Source: Royal University of Bhutan

The development of private training institutes is promising, especially in IT.

Table 18: Private training institutes approved by the National Technology Training Authority (NTTA)[7]

Institute	Intake
Digital Shangri-la (Computer Training Institute)	513
Computer and Management Institute	202
Bhutan Centre of Excellence (Call Centre)	76
Athang Training Academy (Athang ICT)	87
Nyesel Institute of Technology	16
NorChuk Institute of Technology	28
Nyen Shar Computer Training Institute	6

Source: Royal University of Bhutan

3.1.2.2. The gap between the requirements of the industry and training received in educational institutions should be narrowed. The education system and the private sector need to be more closely associated. It is important to build links with both kinds of educational institutions in Bhutan: the business schools that aim to train entrepreneurs, and the colleges of science and technology that train technicians and engineers. Some connections

7 *The list is not complete. Other institutes are being set up, especially computer training centres.*

already exist among Bhutanese colleges and the private sector, such as the guest lectures given by businessmen in the College of Science and Technology in Phuentsholing. There are also some internships: the best students spend 1-2 months in a factory during their studies, although it is up to the students themselves to find a company in which they can work. Internship programmes in colleges and vocational training institutes should be generalized.

3.1.3. Build a class of entrepreneurs (SMEs)

The Government of Bhutan is fully aware of the importance of entrepreneurship for Bhutan's economic development, and progress has been made in this area. According to the Minister of Labour and Human Resources, the Entrepreneurship Promotion Programme is "the flagship programme of the ministry". Over the last two years (2009-2010), 440 people were trained and 94 started their own businesses, although none of these was in the export business. There is an increasing demand for this programme. At the beginning, participants were mostly retirees, but many more young people are now enrolling. Becoming an entrepreneur is perceived less and less as a backup plan and more and more as real career to follow. This programme needs to be enhanced, especially by the inclusion of an export component.

Box 3.Entrepreneurship Promotion Programme, at the Ministry of Labour and Human Resources

The programme comprises two workshops and one programme of studies:

- A business awareness workshop (2-3 days). More than 80 percent of participants are traders/retailers. The workshop is designed for traders who have significant financial resources. It shows them how to identify business opportunities in the country.
- A comprehensive entrepreneurship programme (6 weeks)

3.2. Building a national system of innovation: connecting the actors

3.2.1. Linking actors and initiatives: Education City and IT Park

According to the national innovation system approach, the flow of technology and information among people, enterprises and institutions is key to the innovative process[8]. Innovation and technology development are the result of a complex set of relationships among actors in the system, which includes enterprises, universities and government research institutes. At this stage, Bhutan has very limited R&D capabilities. The main objective for the government should be to facilitate technological transfers via FDIs and technology incubators, and to link major local institutions and initiatives. For instance, the Education City and the IT Park should be closely linked. Economic history shows that the success of science-based industrial parks relies on the geographical proximity of universities with companies (e.g. Silicon Valley and Stanford University in the US, the Hsinchu

8 *See seminal works of Freeman 1995; Lundvall 1992; and Nelson 1993.*

science-based industrial park and National Chiao Tung and Chung Hua universities in Taiwan). For the time being, the Education City aims to train mostly international students who will leave the country after graduation; its aim should also be to supply engineers and technicians who could work in companies located in the IT Park.

3.2.2. Creating a national expatriates' community as future leverage for development

Economic history also demonstrates that the overseas community plays an essential role in the technological catching up process. For instance, the development of IT industries in Taiwan, China or Vietnam would not have been possible without overseas Chinese or Viet Kieu[9]. In general, small developing countries can lean on overseas expatriates for remittances and reverse brain drain. In the case of Bhutan, the overseas community is extremely small. However, in this context the number does not matter: a handful of brilliant engineers or entrepreneurs could be enough to play a substantial role in the diversification of Bhutan's economy. Therefore, it is important to track the Bhutanese who are overseas as much as possible and try to attract those who have the appropriate expertise. The government should even encourage Bhutanese students to stay abroad for a while after graduating in order to accumulate experience and technological know-how.

3.3. Linking NES with complementary policies

Apart from trade policy and trade negotiations, the NES needs to be closely linked to (i) industrial policy and (ii) the exchange rate policy[10].

3.3.1. NES and industrial policy: clustering industries

Owing to Bhutan's space problem and the small size of Bhutanese companies, industrial policy should revolve around clustering industries. Areas in Bhutan where it is possible to set up factories are extremely limited because of the mountainous terrain. Bhutan's economic development has so far essentially taken place in Thimphu and Phuentsholing. The government has created two industrial estates, one in Phuentsholing and a second major estate in its suburb, Pasakha, where 18 industries are currently operational. Further projected estates are at various stages of allotment and construction or a change in activity. With on average 100 employees per company, about 2100 people work in the Pasakha estate. The two estates are now almost full.

Very limited space exists to establish new companies for exports. Phuentsholing is situated at the border with India and represents the gateway for the 20 districts of Bhutan. For the time being, there is only one gate at the border. A second gate is planned for the near future for the use of heavy vehicles that can be directed directly to Pasakha, where exporting industries are concentrated. But the city is still more a platform for imports than for exports, since more import than export flows pass through the city. Phuentsholing has very limited space and steep topography. The riverbank is the only possibility for expanding

9 *See Paulmier 2001; Smart and Hsu 2004; and Pham (2010)*

10 *Bhutan enjoys duty-free access to the emerging Indian market. Bhutan is also a member of the South Asian Free Trade Area (SAFTA) and the BIMSTEC. See chapters on Trade Policy and Review of Bilateral and Regional Trade in Volume I.*

the area for further industries; however most of it is privately owned and it is designated to remain a residential area.

There is therefore a need to build in other areas in order to spread the country's economic development and population growth across the country. The government's aim is to create a southern continuous industrial belt (economic zone) by setting up and developing industrial estates in Sarpang, Samtsé, Samdrup Jongkhar and Mongar. However the topography is difficult and important infrastructure projects will be needed to facilitate access to these areas. Comparative advantages of the region are access to electricity and plenty of water. The location of the next industrial estates has not yet been ascertained; the Department of Industry and DHI are working closely together to determine the most suitable location based on the interest of possible investors and site conditions.

3.3.2. NES and the exchange rate policy

All developing countries that have managed to change their comparative advantages and to catch up to developed economies have implemented an appropriate exchange rate policy, usually by maintaining a competitive valuation of their currency (Japan, South Korea, Taiwan, China). Therefore, the design of a NES should include an in-depth reflection on the exchange rate policy. Bhutan's Ngultrum is currently pegged to the Indian rupee on a one-to-one basis. Considering the difference of development between India and Bhutan, this currency peg seems relatively high. It probably makes imports less expensive than they should be, but at the same time it makes exports less competitive on the Indian market. Moreover, as Bhutan is linked with India through trade (82 percent of exports and 75 percent of imports), rising consumer prices in India tend to spill over. Thus, year-on-year inflation rose to 6.1 percent in the fourth quarter of FY 2010 from 3.0 percent a year earlier. Moreover, Bhutan's competitiveness on third markets might be compromised by an appreciation of the Indian rupee. Bhutan's endemic trade deficit with India also creates worries about rupee earnings. Finally, since Indian rupees are so far not convertible, the country needs to generate dollar earnings to trade with third countries. Bhutan trades in dollars even with neighbouring countries (Nepal, Bangladesh). Now that Bhutan's imports are becoming more and more diversified, the country needs more and more hard currencies (dollar). For the time being, the Central Bank has about $900 million dollars and its reserves are increasing.

Bhutan's experts should analyze and make recommendations concerning the different options which Bhutan could consider regarding an optimal exchange rate policy (pegged exchange rate, crawling peg, pegged within a band, currency board, etc.) The exchange-rate policy should be supportive of trade and industrial policies, while taking into account the macroeconomic particularities of the country.

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ANNEXES

ANNEX: IN-DEPTH ANALYSIS BY INDUSTRY

This Annex presents the main results for the 19 industries selected. Industries are presented in descending order in terms of their export value in 2010

1. Energy (hydropower)

Export potential	High	
Socio-economic impact (job creation)	High	
GNH impact	Positive	
Export performance and destination markets, 2010		
	Value in Nu million	Export in million Units (mU)
Total exports	10,411($226 m)	
India	10,411	5,579
Tala Hydropower Project	6,396	3,554
Chukha Hydropower Project	3,687	1,844
Kurichhu Hydropower Project	327	182

Strengths/opportunities	Weaknesses/threats
Export performance/Export readiness	
100% of exports to India. **Prospects:** exports should grow fast following the development of new hydropower plants	Exports only to India (monopsony).
World markets	
Price agreement Bhutan-India. No price fluctuation thanks to this agreement.	No other market opportunities.
Domestic supply	
Production: Vast hydropower potential. Some 25,000 MW could be exploited. The current programme is to develop a capacity of 10,000MW by 2020. **Financing:** until now new hydropower plants have been financed by a mix of grants and loans, both provided by India. In the future, two models will coexist: (i) grants and loans and (ii) PPP arrangements with private companies **Opportunities:** Renewable energies are being prospected (biomass, solar, wind power). It is premature to say that there is potential.	**Production:** Seasonality of production: in winter, one fifth of that in summer. Imports some electricity from India during four months a year. By 2015, this bottleneck will be removed by the commissioning of the new plants under construction **Labour force:** Massive number of Indian workers required. **Technology:** Technological dependency on India. **Business environment:** Monopolistic: only one company owned by the government through DHI: Druk Green. If Bhutan dismantles power-tariff subsidies to industry, the FDI attractiveness of Bhutan in manufacturing industries can be compromised.
Socio-economic impact: positive	

Macro economy: Bhutan's economy is driven by the cycle of hydropower building and output. Mainstay of the economy: 12 percent of GDP, 45 percent of government revenues. **Currency generation:** High rupee earnings. **Public revenues:** The commissioning of the 1,020-megawatt Tala Hydropower Project resulted in an increase of 60 percent in government revenues from the hydropower sector. The Tala hydropower station was commissioned in FY2007. **Regional impact:** Druk Green has also a social mandate and it aims to provide electricity to all rural households in partnership with donors such as ADB[3] and Japan. The 2010 Rural Renewable Energy Development Project supplemented the Rural Electrification and Network Expansion Project in bringing electricity to more areas of the country through the installation of solar panel units. It also provides all sorts of facilities in rural areas (medical centres, schools, school buses, etc.) Power plants are in the western part of the country, however, workers come from the eastern part. **Job creation effect:** Kurichhu Hydropower plant: 180 Basochhu Hydropower plant: 201 Chhukha Hydropower plant: 539 Tala hydropower plant: 791 Druk Green Power Corporation: 81 Bhutan Power Corporation: 1773 (distribution to consumers). **New job opportunities:** Construction of ten new hydropower plants project will require about 70,000 employees. Then about 8,000 employees to run the plants.	**Macro economy:** In the medium term, there is a remote, although real, threat of the "Dutch disease" effect. Rent-seeking behaviour by the Government. **Public indebtedness:** about $7 billion to the Indian Government. This is not significant as the debt is mostly to India for the financing of hydropower plants, whose production is in turn bought by India.
GNH impact:	
Psychological wellbeing: uncertain	
Education: positive	
Conservation of the environment: positive	
Preservation and promotion of culture: positive	
Community vitality: positive through introduction of rural electrification which is now followed by ICT.	
Priority actions	
Address the upcoming labour shortage. Build Bhutanese technical expertise in hydropower technology and related sciences and technologies, including legal and financial dimensions. Expand intake capacity of vocational training institutes and colleges. Develop internship programmes with universities and vocational training institutes.	

2. Mining and Manufacturing

2.1 Base metals and articles of base metal[11]

Export potential	High
Socio-economic impact (job creation)	Low
GNH impact	Negative

Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Total	9,822 ($214 m)	
Iron and steel (72)	7,294 ($159 m)	
Ferro-alloys. Containing by weight more than 55% of silicon (7202.21.00)	5,653 ($123 m)	
India	5,471	88,812,349
Japan	130	2,080,000
Bangladesh	25	370,000
Italy	15	302,000
Singapore	12	196,000
Ferro-alloys. Micro silicon (7202.29.10)	45 ($1 m)	
India	45	5,441,610
Ingots (7206.10.00)	595 ($13 m)	
India	595	25,358,399
Semi-finished products of iron or non-alloy steel. Other (7207.19.00)	400 ($8.7 m)	
India	400	15,158,817
Other bars and rods of iron or non-alloy steel Other, of free-cutting steel (7214.30.00)	739 ($16.1 m)	
India	739	23,838,050
Copper (74)	1,762 ($38 m)	
Copper wire, Other (74081900)	1,724 ($37.5 m)	
India	1,724	9,795,664
Billets(7403.13.00)	31 ($0.7 m)	
India	31	854,766
Manganese and articles thereof, including waste and scrap. (8111.00.00)	766 ($17 m)	
India	766	14,914,600

11 *A few other products are exported. We show only the products for which the values and the quantities are more than Nu 10 million.*

Strengths/opportunities	Weaknesses/threats
Export performance/export readiness	
Market share on India's market for ferro-silicon: 70 percent. Tata is a client of Bhutanese ferro-alloys.	
World markets	
Markets: 100 percent India. Indian steel market is still increasing. **Market opportunities:** Potential for European markets thanks to GSP status. **Market access:** Duty-free access to Bangladesh for 720221 and 720719.	**Market access:** In case of loss of LDC status in the future, the impact will be mitigated by GSP. **Price volatility:** The price of ferro-alloys is very volatile.
Domestic supply	
Product quality: Ferro-silicon meets international standards. Druk Wang Alloys: fairly high quality 70 grade (70 percent minimum silicon: American Japanese 75 percent minimum, in India 70 percent). **Production:** Cheap electricity cost makes it competitive (up to 50 percent of the production cost is electricity). **Product:** Ferro-alloys. **Business environment:** Government regulation to prevent too much competition: limited number of companies (6). **New location opportunities:** Samtsé	**Business environment:** Regulation is too stringent. Ferro-alloy licences are for one particular product. To change product, there is a need for a new license, which means new report, new procedures. Can take years to obtain. For environmental clearance, two entities working autonomously (Ministry of Economic Affairs (environmental unit) and the National Environment Commission. **Production:** Very new industry established in 2007. All inputs from India. No testing laboratory in Bhutan. Product testing in India (time consuming). High volume and low margin scale economies. Raw materials come from India, inputs (coal and coke from Assam, quartz from Jharkhand and charcoal from Tamil Nadu, South India). **Transportation:** High transportation costs of imported raw materials. Containers used for imports cannot be used for exports. Need to bring empty containers from Calcutta to export. **Transportation opportunity:** Railway connection up to Phuentsholing. **New location opportunities:** Gelephu but close to politically unstable region in India.
Socio-economic impact: low	
Job creation effect: 1,074 workers - Druk Iron & Steel: 298 (178 non-national) - Bhutan Ferro-alloys Ltd: 258 (11 non-national) - Lhaki Steels & Rolling Pvt. Ltd: 252 (161 non-national) - Druk Ferro-alloys: 98 (30 non-national) - Druk Wang Alloys Limited: 168 (26 non-national)	
GNH impact : negative	
Psychological wellbeing: negative	
Education: positive	
Conservation of the environment: negative	
Environmental impact: High. Polluting industry (carbon footprint). Released into the air. Ferro-alloys the most polluting industry in Bhutan.	
Preservation and promotion of culture: negative	
Community vitality: negative	
Priority actions	
Business environment: More comprehensive production licenses that cover change of product. **Production:** Set up an independent internationally certified laboratory for testing the quality of the products **Transportation:** Improve roads. Set up railway system up to Pasakha (about 50 km). **Environment:** Upgrade environmental protection of above companies to reduce pollution impact. **Fiscal policy:** Eliminate 10 percent tariff for steel products. 36% tariff on steel by Bangladesh. **Excise duty:** 10.3 percent in India. All industries in Bhutan buy raw materials from India.	

2.2. Minerals

Export potential	High
Socio-economic impact (job creation)	Low
GNH impact	Negative

Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Minerals	2,544 ($55 m)	
Quartzite (2506.20.00)	16 ($0.3 m)	
India	11	72,610,213
Bangladesh	5	5,318,581
Boulders (2516.90.10)	18 ($0.4 m)	
India	18	65,776,150
Dolomite, not calcined or sintered, powdered (2518.10.10)	132 ($2.9 m)	
India	60	85,632,058
Bangladesh	72	54,932,160
Dolomite, not calcined or sintered, Chips (2518.10.20)	417 ($9.1 m)	
India	415	734,252,830
Bangladesh	2	2,037,700
Dolomite, not calcined or sintered, Lumbs and slabs (2518.10.30)	188 ($4.1 m)	
India	176	339,994,875
Bangladesh	12	9,515,650
Dolomite, not calcined or sintered, Other (2518.10.90)	14 ($0.3 m)	
India	14	48,860
Gypsum; anhydrite (2520.10.00)	440 ($9.6 m)	321,729,495
Bangladesh	18	7,159,580
Nepal	16	12,299,560
Limestone and other calcareous stone (2521.00.90)	243 ($5.3 m)	
Bangladesh	236	98,110,133
India	7	6,206,950
Cement clinkers (2523.10.00)	20.5 ($0.4 m)	
India	17	4,948,950
Nepal	3.5	1,000,000
Ordinary portland cement (2523.29.10)	62 ($1.3 m)	
India	62	16,466,856
Portland pozzolana cement (2523.29.30)	813 ($18 m)	

India	813	183,978,500
Portland slag cement (2523.29.40)	479 ($10 m)	
India	479	113,042,800
Natural steatite crushed or powdered (2526.20.00)	26 ($0.6 m)	
India	26	13,526,090
Bituminous coal (2701.12.00)	201 ($4.4 m)	
India	201	56,897,087
Other coal (2701.19.00)	14 ($0.3 m)	
India	14	143,961

Strengths/opportunities	Weaknesses/threats
Export performance/export readiness	
World markets	
Market Access: Duty free access to Bangladesh for boulders, dolomite, gypsum, limestone	
Domestic supply	
Products: quartzite, dolomite (3 billion metric tons available), coal, gypsum. **Production:** Available volume. Gypsum value addition: gypsum board, plastic board. 10 million square meters. With Lafarge. **Backward linkages:** quartzite used in ferro-silicon. Limestone and coal used in cement plants.	**Business environment:** Since 2006, minerals cannot be exported in raw form, without added value. Numerous clearances: local communities, National Environmental Commission, National Land Commission, Dept. of Forests and Parks.
Socio-economic impact: low	
Regional Impact: Dolomite powder produced in Sangtse. **Job creation effect:** Druk Cement Co.: 51 Jigme Mining Corporation: 33 Penden Cement Authority: 441	
GNH impact : negative	
Psychological wellbeing: negative	
Education: positive	
Conservation of the environment: negative	
Preservation and promotion of culture: negative	
Community vitality: negative	
Priority actions	
Regulations: Rationalization of clearances, better coordination among agencies and simplification of the processes. **Environment:** Reduction of pollution. **Business environment:** Intervention of the authorities to access land/space where added value industrial processes could take place.	

2.3. Chemical products (carbides)

Export potential	High	
Socio-economic impact (job creation)	Low	
GNH impact	Negative	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Chemical products (Chapters 28 and 39)	1,684 ($36.6 m)	
Inorganic chemicals. Carbides, whether or not chemically defined. Of calcium (2849.109)	966 ($21 m)	
India	966	26,628,170
Inorganic chemicals. Carbides, whether or not chemically defined. Of silicon (2849.20)	450 ($10 m)	
India	450	10,565,219
Plastics and articles thereof. Other plates, sheets, film, foil and strip of plastics. Of other plastics (3920.99.00)	194 ($4 m)	
India	194	1,760,142

Strengths/opportunities	Weaknesses/threats
Export performance/Export readiness	
World markets	
Market access: Duty-free access for calcium carbonite	
Domestic supply	
Product: Calcium carbide has many applications: animal feed (poultry), the paper industry…	There are potentialities but the level of use in connection with other finished products is low.
Socio-economic impact: low	
Job creation effect: Druk Plaster & Chemical Limited:13 Bhutan Polythene Company Ltd: 50 Bhutan Carbide and Chemicals: 267 Bhutan Polymers Company: 114	
GNH impact : negative	
Psychological wellbeing: negative	
Education: positive	
Conservation of the environment: negative	
Preservation and promotion of culture: negative	
Community vitality: negative	
Priority actions	
Industrial linkages: Encourage linkages between mineral extraction and its transformation into chemical products. **Environment:** Take measures to combat pollution and improve the wellbeing of the workers.	

2.4. Agro Product (mixture of juices)[12]

Export potential	Medium (water)	
Socio-economic impact (job creation)	Low	
GNH impact	Neutral	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Mixtures of juices (2009.90)	104.1 ($2.3 m)	
India	103.4	2,765,774
Bangladesh	0.7	16,080

Strengths/opportunities	Weaknesses/threats
Export performance/Export readiness	
Because of "Druk" brand preference by consumers.	The sector does not seem dynamic; several firms have closed during the last decade.
World markets	
Markets: India, Nepal, Bangladesh. **Market opportunities:** Find niche markets.	High marketing and advertisement costs in agro-processing industry to showcase products. Cannot compete in the mass markets. Low regional demand for apple juice.
Domestic supply	
Product diversification: water bottles. Resource is available at high volume and very low production cost. **Technology:** Tetrapak technology for packaging	**Technology:** Tetrapak juice more expensive. **Transportation:** High transportation cost. Fruit juices are prepared by using fruit juice concentrates.
Socio-economic impact: low	
Job creation: Low impact Bhutan Milk & Agro: 45 employees +10 in the near future to reach full capacity. Bhutan Agro Industries Ltd.: 53 Bhutan Fruit Products Pvt. Ltd.: 46	
GNH impact : no impact	
Psychological wellbeing: negative	
Education: positive	
Conservation of the environment: no impact	
Preservation and promotion of culture: no impact	
Community vitality: positive	
Priority actions	
Despite recent improvements in infrastructure development, road transport urgently needs improvement. Quality management systems will have to start using Good Manufacturing Practices (GMP) and the Hazard Analysis Critical Control Point (HACCP) system as tools to upgrade quality and guarantee food safety.	

12 *A few other products are exported. We show only the products for which the values and the quantities are superior to Nu 10 million.*

2.5. Handicraft

Export potential	Low	
Socio-economic impact (job creation)	High	
GNH impact	Positive	
Export performance and destination markets, 2010		

Strengths/opportunities	Weaknesses/threats
Export performance / Export readiness	
	Passive exports through tourism.
World markets	
Search for originality, exoticism, authenticity in western markets.	Need to compete with Indian, Nepalese, Latin American products.
Domestic supply	
Supporting industry: Linkage with tourism. **Production:** 2 schools teaching 13 different Bhutanese arts and crafts (metal work, sculpting, embroidery, wood carving, shoe making, weaving). **Product diversification:** Adapt traditional designs to make them more appealing to Western / Asian customers.	**Products** Low product quality. Most handicrafts shops display the same products, and also sell foreign products (Lao, China) or products that are not part of traditional Bhutanese handicraft. **Supply chain** The tourism industry tends to shape the orientation of handicraft industry. Production for tourists of non-authentic items of traditional handicraft (scarves, cushion covers, handbags, lamp shades). **Production** High level of informality and fragmentation. Lack of volume, with a standard quality. For e-commerce the quality must be standard.
Socio-economic impact: high	
Job creation: 5 percent of total employment: about 8,500 people (2009). 65 percent of the population engaged in agriculture is also engaged in manufacturing handicrafts during the non-cultivation season as a means of sustenance. Source of employment of women in rural areas. Handicrafts Emporium: 33 Wood Craft Centre Ltd.: 115 GDP of $10-12 m (1 percent of GDP) (2009) **Cultural identity impact:** preservation (traditional techniques, designs, habits).	
GNH impact : positive	
Psychological wellbeing: positive	
Education: negative	
Conservation of the environment: no impact	
Preservation and promotion of culture: positive	
Community vitality: positive	
Priority actions	
Production: Improve the quality of raw materials and products. **Business environment:** Attract foreign designers (Asian, Western) to help in developing the use of Bhutanese textiles in fashion collections and to adapt traditional designs to Western / Asian tastes (moving away then from traditional handicraft).	

2.6. Handmade paper

Export potential	Low	
Socio-economic impact (job creation)	Low	
GNH impact	Positive	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Handmade paper and paperboard (480210)	0. 261 ($0.006 m)	
Netherlands	158,503	84
United States of America	102,620	42

Strengths/opportunities	Weaknesses/threats
Export performance/Export readiness	
Paper (sheets) exported mostly to the US.	
World markets	
Dynamic world import market. Favourable market access conditions	Higher price compared to other papers.
Domestic supply	
	Outdated production technology. The scale of production is very small.
Socio-economic impact: low	
GNH impact : positive	
Psychological wellbeing: positive	
Education: negative	
Conservation of the environment: no impact or minor	
Since the bulk of the raw materials are harvested from the wild, it has a negative conservation effect	
Preservation and promotion of culture: positive	
Paper is part of ancient culture and tradition; also, Bhutan has been accorded the right to supply paper to Tibet for the writing of Buddhist scripts.	
Community vitality: positive	
Production Introduce environmental practices to save Lokta resources and conduct research for replacements. Introduce standards for the sector. Upgrade the technology of Lokta paper making	

3. Agriculture and forestry

3.1. Citrus

Export potential	Medium	
Socio-economic impact (job creation)	Medium	
GNH impact	Medium	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Total mandarin exports (0805.10.00)	333 ($7.2 m)	
Bangladesh	305	20,622,127
India	28	1,861,959

Strengths/opportunities	Weaknesses/threats
Export performance / Export readiness	
	Passive exports: Auction sales in Samtsé at the Indian Border where Indian traders buy the production then sell it to other traders in India and capture the mark-up.
World markets	
Market Access Duty free Access to Bangladesh **Demand** Steady market demand from Bangladesh and smaller outlets in border towns of India.	
Domestic supply	
Production Broad production base and suitable agro-ecological climate with production in 16 districts out of 20 districts in the country. Intermediate players playing a crucial role in marketing with forward buying activities. **Opportunities** High potential for agro-processing and other value addition with the setting up of farmer groups and cooperatives. A priority crop as seen by the government, as regards both equitable wealth distribution and revenue earnings. Scope for expanding mandarin production (land available), if the entire production system is changed starting with varieties, technology, production scale and growing areas.	**Production** Poor orchard management, orchards dominated by aging trees. Weak delivery of extension support services. High susceptibility to pests and diseases. High incidence of diseases from citrus greening. Long distance to markets resulting in high costs and product deterioration. Low level of technical and managerial skills and knowledge among actors. **Threats** Single market dependence. e.g. Bangladesh. Long hours of customs clearance on the border check posts of India and Bangladesh. Unreliable transit road conditions resulting from unexpected prolonged durations of road closures in neighbouring Indian towns.
Socio-economic impact: positive	

Regional impact: Grown in 16 of the 20 dzongkhags in the country. Major citrus growing dzongkhags: Sarpang, Pemagateshel, Samdrup Jongkhar, Zhemgang, Samtsé, Tsirang, Dagana, and Chukha. **Hard currency generation**: High, since main market is Bangladesh.	
GNH impact: no impact	
Psychological wellbeing: positive	
Education: negative	
Conservation of the environment: positive. Control soil erosion and land degradation	
Need to cut trees to establish orchards and possible use of pesticides	
Preservation and promotion of culture: no impact	
Community vitality: positive	
Priority actions	
Strengthen marketing and transportation infrastructure leading to improved price signals to producers, lower transaction costs and increased private sector investments. Upgrade marketing system to allow cost-effective movement of goods between producers and consumers. Simple grading at the farm level to improve product quality. Enhance capacity of extension agents and also support developing private nurseries. New entrants need to be promoted through policies more conducive to development, and legal instruments: business farming, agro-business, joint ventures or venture capitalists.	

3.2. Potatoes

Export potential	Medium	
Socio-economic impact (job creation)	Medium	
GNH impact	Medium	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Total export of potatoes, fresh or chilled, Other (0701.90.09)	196 ($4.3 m (Bhutan Trade Statistics) 271 ($5.9 m) (Source: Food Corporation of Bhutan through auction sales in Phuentsholing)	1. 18,652,725 2. 24,000 metric tons
India	196	

Strengths/opportunities	Weaknesses/threats
Export performance / Export readiness	
Production in three seasons. Sustained demand by consumers in India. Seed potato demand from India. Export performance high.	**Passive exports:** Auction sales in Phuentsholing at the Indian Border where Indians buy the production. Risk in transit and post harvest.
World markets	
Seasonal advantage over Indian suppliers.	**High price volatility:** Exports of potatoes are volatile and depend on the situation of the domestic production in India.
Domestic supply	
Product varieties Desiree, Kufri-jyoti, Yusi-kaap, Khangma-kaap **Production** Fresh farm produce with little use of chemicals and fertilizers resulting in high quality and preferred taste. Free government support on research, extension and marketing services and other inputs. Favourable geo-climatic conditions across the country. Critical mass in production areas and well established growers. **Opportunities** Long traditional knowledge and interest among elderly growers. Unlimited market and large consumer base in border towns of India. Possible supply to big agro-processing industries. Semi-mechanization can lead to higher production and productivity.	**Production** Cultivated in small parcels. Inefficient and unreliable input delivery systems. High cost of production and transaction cost. Poor grading and packaging equipment. High pre- and post-harvest losses. Unorganized supply chain. **Transportation** Poor road coverage and long distance to markets. Absence of good quality roads. Unreliable transit through Indian border towns to larger markets in India. **Marketing** Imperfect market knowledge and infrastructure. **Threats** Production potential constraint through lack of adequate access to improved technology, quality inputs, credit and information. Single Indian market limited to a few big importers. Probable buyer cartels both at auction yards and end market(s) in India disrupting markets and prices. Wild animal destruction of crop plantations. Declining farm labour in the rural areas. High incidence of pest and diseases.
Socio-economic impact: medium	

Regional Impact: Provide income to 13,000 households in eastern and western Bhutan (ITC, 2009)	
GNH impact : no impact	
Psychological wellbeing: positive	
Education: negative	
Conservation of the environment: no impact	
Preservation and promotion of culture: no impact	
Community vitality: positive	
Priority actions	
Develop the value chain with interventions at key links, e.g. coordinate collection and transportation, packaging and grading, auctioning process, and improved markets and prices. Improve transportation arrangements both in the price negotiation per bag and in transport scheduling. Strengthen market information systems in real time. Strengthen potato growers' associations and farmer cooperatives. Explore possibilities of transformation of potatoes (chips, etc.) Encourage contract farming and joint ventures with entrepreneurial skills. Consider a crop insurance scheme for potatoes.	

3.3. Cardamoms

Export potential	Medium	
Socio-economic impact (job creation)	Medium	
GNH impact	Neutral	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Total exports of cardamoms (0908 30 00)	222 ($4.8 m)	
India	116	183,721
Bangladesh	106	292,500

Strengths/opportunities	Weaknesses/threats
Export performance/Export readiness	
Good relationship between Bangladeshi importers and Bhutanese sellers	
World markets	
International demand for large cardamom is increasing. The main consuming countries of large cardamom are located in South Asia, with only few countries consuming this product in other world regions. Market development for large cardamom in markets where small cardamom is prevalent. Essential oil extraction utilizing new technologies like CO2 extraction. India is the world's largest market, producer and consumer, **Market Access:** Duty free access to Bangladesh	Intense competition from neighbouring countries (Nepal and India). Nepal is one of the major producers of large cardamom and has a share of 50% in world exports. Dependency on two markets – India and Bangladesh. Poor grading.
Domestic supply	

Production: Higher storability than other crops. High price for farmers. Low investment and low number of labour days required to obtain a reliable inflow of cash make the crop accessible for poor farmers. Diversified topography and agro climatic conditions conducive to production. Cardamom is considered as a high-value crop. Low investment to obtain regular inflow of cash income. Many private companies. **Product quality:** No formal grading takes place. Quality is considered to be inferior to products from India or Pakistan. The major processing that takes place in Bhutan is drying, and efforts are made to make more use of a superior drying method. However, further added value (grading, cleaning, etc.) is usually carried out in India. **Supply capacity:** Large number of farmers involved in cultivation. Potential for increasing production, both by increasing the area and by improving production techniques. **Product diversification:** essential oils.	**Production:** Lack of skilled technical manpower. Lack of proper knowledge of cultivation practices and sorting/grading Apart from harvest, maintenance of the plantation is seldom done. Lack of market information and poor market access. **Threat:** Prone to diseases that can threaten the harvest. Farmers risk moving away from cardamom because of disease and dropping prices. Indian traders buy inside Bhutan in order to export, capturing the mark-up.
Socio-economic impact: medium	
Suitable crop for small farmers. Rural women employment / empowerment.	.
GNH impact: no impact	
Psychological wellbeing: positive	
Education: negative	
Conservation of the environment: no impact	
The farming of cardamom does not have negative ecological consequences. However, drying requires large amounts of firewood, which could lead to increased deforestation.	
Preservation and promotion of culture: no impact	
Community vitality: positive	
Priority actions	
Develop national standards for quality and grading. Upgrade drying technology. Explore avenues of product diversification – catering to spice industry, essential oils, cardamom paper, incense, colour extraction. Increase awareness of large cardamom in traditional small cardamom markets. Eradicate crop diseases. The use of disease-free planting materials obtained by modern technologies of tissue culture can control the diseases. For this purpose, a tissue culture lab should be established. Higher yield through adoption of improved production technology.	

3.4. Apples

Export potential	Medium	
Socio-economic impact (job creation)	Low	
GNH impact	Medium	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Total exports of apples (0808.10.00)	117 ($2.5 m)	
Bangladesh	76	2,780,980
India	41	4,279,573

Strengths/opportunities	Weaknesses/threats
Export performance/Export readiness	
About 10 exporters located in Thimphu and in Paro. Considered as a fresh Himalayan product.	Need to compete with products from northern India
World markets	
Market Access: Duty free access to Bangladesh	**Volume.** World markets are mass markets. Large market in neighbouring countries. **High volatility** Exports of apple are volatile and depend on the situation regarding the domestic production in India.
Domestic supply	
Long subsector experience among growers and supply chain actors. Agro-climatic advantages arising from clean environment and unpolluted water. **Opportunities** Brand Bhutan image with possible future negotiations on premium charges. Scope of increasing production areas and productivity including variety improvement. Growers can easily adopt and adapt new best practices. Dynamic and versatile actors in the supply chain.	**Production:** Poor packaging and grading **Product diversification:** apple juice has a low demand in the region. Declining product quality due to poor to negligent orchard management. Deteriorating transport infrastructure with poor road conditions and long hours on the road. Long distance to markets results in high transportation costs and product deterioration. Unorganized growers. **Threats** Unreliable road conditions in the country resulting in long delays, including possible closure as a result of landslides particularly on the P/Ling to Thimphu highway.
Socio-economic impact: low	
Regional impact: 95 percent of apples are grown between Thimphu and Paro.	
GNH impact : no impact	
Psychological wellbeing: positive	
Education: negative	
Conservation of the environment: no impact	
Preservation and promotion of culture: no impact	
Community vitality: positive	
Priority actions	
- Introduce improved varieties of apples resulting in higher productivity and income earning. - Acquire organic certification; and market products as organic or as natural products from Bhutan. - Support farmer groups and associations through training and awareness programmemes.	

3.5. Medicinal plants (Cordyceps) and mushrooms (Matsutake)

Export potential of cordyceps	Medium	
Socio-economic impact (job creation)	Low	
GNH impact of cordyceps	Neutral	
Export potential of matsutake	Low	
Socio-economic impact	Low	
GNH impact of matsutake	Neutral	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Total exports of Cordyceps sinensis (Yertsha gein bhup) (07123910)	45 ($1 m)	
Hong Kong (+China)	42 (+0.025)	244 (+0.25)
Taiwan	1.272	12.5
Singapore	0.8	4.9
Thailand	0.556	4.8
Malaysia	0.269	3.6
Philippines	0.042	0.2
Total exports of matsutake (Sangay Shamu) (07095910)	3.2 ($0.07 m)	
Japan	2,6	1,123
India	0.5	201
Korea South	0.08	108
Singapore	0.04	27
China	0.02	15
Hong Kong	0.01	10
Thailand	0.01	5

Strengths/opportunities	Weaknesses/threats
World markets	
Cordyceps, matsutake: high prices. Cordyceps up to $10,000/kg. **Attractive markets for matsutake:** high demand in Japan and Korea, Singapore, Thailand and United Kingdom. **Attractive markets for medicinal plants**: potential in Buddhist countries but not enough quantity to supply the local market.	Difficult to export as matsutake should be shipped immediately to Japan (within 24 hours) for higher price (travel frequency of Druk Air). **Market access** Barriers in exporting to India: Bhutanese exporters face many bottlenecks in exporting products to India including unofficial payments to police, forest offices and customs officers. Furthermore, Bhutanese exporters do not have established linkages with reliable buyers, which results in difficulty in getting payment after sale of non-wood forest products (NWFPs), cheating on weight, and lack of trust in the price offered.
Domestic supply	

Business environment: The development and commercialization of (non-wood) forest products has been identified by the Royal Government of Bhutan as one of the major priorities for poverty alleviation in the 10th Five Year Plan (2008-2013).

Product diversification: Spa products (essences), herbal tea, incense sticks, incense powder have potential (but currently do not meet the local demand), herbal tea, cordyceps-based products.

Currently a few foreign companies negotiating for bio prospects (Japan, Malaysia).

Volume problem: A Thai company wanted to invest in Bhutan in order to sell cordyceps based products in Thailand; however, it faced volume problems, an unreliable source of raw materials, and insufficient information on supply potential. Before starting the export of NWFPs, traders should have an understanding of the supply potential. At present, information on the supply potential of commercially important NWFPs within DoFPS is very limited and incomplete.

Technology: needs to be upgraded, skills, packaging.

Production: A lot of species are to be found at high altitude and are very difficult of access. No commercial plantations possible: flat land is used for other crops.

Product diversification: Amla: high cost of production, not competitive with that of India.

Business environment: Royalty rates of NWFPs are very high in Bhutan compared to other countries in South Asia[4]. Therefore, Bhutanese traders face difficulties in selling NWFPs with profit in international markets.

Limited number of NWFP groups: In Bhutan, the collection of NWFPs from Government Forest Land is only legal if a NWFP group or a Community Forest Management Group is formed. In some areas (e.g. Paro), commercially important NWFPs are abundant but farmers are unable to collect them unless they form a group facilitated by the Dzongkhag Forest Services.

Marketing

Lack of market information for Bhutanese traders/exporters and collectors, who know only a few Indian markets (Siliguri and Kolkata) and lack of knowledge of buyers' requirements such as: quality, quantity, price, and technological and legal requirements for export.

Supply chain

Lack of collection centres: Due to the lack of collection centres in strategic locations, traders are unable to collect and store NWFPs in large volumes and are therefore forced to export NWFPs in small quantities. Low volumes make it difficult to access bigger markets, which leads to high marketing and transaction costs (i.e. costs of doing business).

Lack of horizontal linkages among traders: Traders in Bhutan are not united and do business independently in low volumes and small quantities. For access to bigger markets such as Delhi, trading in small quantities is not cost effective.

Minimum support programmes to traders: Traders and commission agents are important actors in any trade. If traders are not capacitated they will not get proper prices for their NWFPs and cannot pay good prices to collectors. Traders need support to find alternative markets and responsible buyers and need to increase their knowledge on requirements of buyers (quality, quantity) and specifications.

Product quality

Low quality of products and adulteration: challenge to meet quality requirements. Although Bhutanese products are often considered as superior in quality, adulteration and improper post-harvest handling at collectors and traders' levels have created problems to get access and better prices on Indian markets.

Socio-economic impact: low	
	Job creation effect: <2,000 workers for cordyceps and matsutake, mostly poor communities
GNH impact: no impact	
Psychological wellbeing: positive	
Education: negative	
Conservation of the environment: no impact	
There is a risk of over-harvesting and depleting the natural capacity to reproduce	
Preservation and promotion of culture: no impact	
Community vitality: positive	
Priority actions	
Bhutanese exporters should consider working and doing business together in order help to increase the economies of scale. For this purpose, traders could form an association where they can share marketing experiences, explore potentials for collaboration and introduce their products in bigger markets. Privatize the Institute for Traditional Medical Sciences (ITMS) to help make it more efficient. Explore the potential of local value addition and test products in local markets Favour dissemination of reliable market information on a regular basis. Modern facility to produce medicine with a research branch + packaging.	

Box 4. Amla : a new product opportunity?

Amla is an important medicinal plant widely used in the Asian region. In the ancient Ayurvedic texts, amla or Indian gooseberry is considered the food of gods. In Sanskrit, it is known as dhatri, meaning 'nurse', due to its excellent healing properties. Amla is a rich source of vitamin C (16-20 times more vitamins than mandarins) and is used for curing a variety of diseases of the eyes, stomach, liver, lungs, urinary system and skin.

Dahal, Rabi C. 2009, News report in the Bhutan Observer, 25 May.

3.6. Red rice

Export potential	Low	
Socio-economic impact (job creation)	Low	
GNH impact	Neutral	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Total exports of red rice (Yeechum) (1006.20.20)	6,5 ($0.14 m)	
United States of America	6,5	72,000. 200 metric tons of exports per year (Source: Chharu Tshongdel).
Switzerland	0.003	30

Strengths/opportunities	Weaknesses/threats
Low export performance / High export readiness	
Experienced company established in 1995 (16 years in exports), profitable. Traditional varieties with niche export markets.	Production: Only one company (Chharu Tshongdel)
World markets	
Markets: Demand on the US market. **Market diversification:** planning Europe, international trade fairs; Germany, once organically certified.	Niche market. Exports slow down because of the crisis in the US.
Domestic supply	
Product: Product unique to Bhutan. Considered as a health food with medical properties (lowering cholesterol). Natural healthy food. Gluten-free. Disease resistant and highly adaptable to agro-climatic conditions. **Technology:** Systemic Rice Intensification (SRI) to increase yields (an increase of 50 to 80%, with fewer seeds, less water, more volume) and reduce production costs. Development of irrigation in Punakha. US organic certification (8 ha underway). Obtain EU organic certification. Establish local factory to pack rather to send it in bulk. **Value addition:** Manufacture energy bars with agro-processing company. **Business environment** The Accelerating Bhutan's Socio-Development (ABSD) programme commercialization of rice.	**Labour force:** Labour shortage for farmers. Indian workers not allowed. Threat of losing farmers because of rural exodus (people who no longer want to be farmers). **Production:** Production based on traditional tools and implements with negligible mechanization. No grading and packaging. Farming is traditionally at subsistence level. Lack of culture of commercialization. Farms too fragmented and scattered. **Packaging**: Done in the US. **Technology:** Lack of irrigation (water critical). Small size of the farms prevents mechanization. **Transportation:** High transportation costs to collect paddy rice. Monsoon season from June to September slows down the shipment (roads can be blocked for a couple of days). **Threats** Uncertain premium through organic certification. Lack of farm labour will result in probable production decline. Cultivable agriculture land encroached by developmental activities such as road construction and other urban infrastructure development. Wild animal crop destruction resulting in huge losses.

Socio-economic impact: low	
Regional impact: Staple crop, cultivation across major parts of the country.	**Low Job creation:** current labour force of Chharu. Tshongdel: 20 workers and 100 seasonally (6 months a year)
GNH impact : no impact	
Psychological wellbeing: positive	
Education: negative	
Conservation of the environment: no impact	
Preservation and promotion of culture: no impact	
Community vitality: positive	
Priority actions	
Expand production, particularly for the low-elevation southern belt, through added extension and input delivery. There is an urgent need to reallocate additional research resources in the rice subsector, with potential to contribute to national food security and increase domestic production. Need to promote the development of rice clusters and encourage farmer groups or associations. Technical assistance to the farmers. Develop people-public-private-partnerships (P4)[5]. Improve road connectivity. Packaging is high priority rather than sending in bulk. Contract farming led by a firm such as Chharu Tshongdel that also involves agricultural services.	

3.7. Lemon grass

Export potential	Low	
Socio-economic impact (job creation)	Low	
GNH impact	Neutral	
Export performance and destination markets, 2010		
	Value in Nu million	Quantity (KGM)
Total exports of lemon grass (1401.90.20)	1,7 ($0.04 m)	
Germany	0.4	300
Thailand	0.9	720
Viet Nam	0.4	500
Total exports of essential oils (terpeneless or not) of lemon (330113)	0.4 ($0.001 m)	
India	0.4	723
Taiwan	0.02	23
United States of America	0.02	13
Switzerland	0.002	0.50

Strengths/opportunities	Weaknesses/threats
Export performance/Export readiness	
One exporting company: Bio Bhutan. Bio Bhutan has open up a niche market in Asia, Europe and US and sold organic LGO at CIF rates of $20-30 per kg of oil in 2007, and it is possible to increase price.	Low volume. Work is seasonal.
World markets	
Fairly good market in Europe and North Americas. Organic production is comparative advantage. Niche market with premium price for high-quality organic certified oil. The aromatherapy and perfume industries appreciate the unique composition of oil collected from the wild, with its high content of limonene in addition to the main component of lemongrass oil: citral.	Need to compete with Indian products (this has led to decline of LGO from 1.7 tons in 1999 to 8.9 tons in 2007). Must adhere to international guidelines on wild collection (WHO, 2003; ISSC-MAP, 2007). Must fulfill requirements of importing countries such as the EU regulation EEC 2092 and NOP of USA.
Domestic supply	
Products Possibility of value addition for lemon grass (lemon scent, refined oil etc.). **Production** Eastern Bhutan has the capacity to sustainably produce 50 MT lemongrass oil a year. If this could be realized it would capture about 10 percent of world market (Dhungyel, 2002).	Dependence of raw materials in the wild. Hugh dependence on firewood for extraction. Labour-intensive in collection of materials. Mainly seasonal work (harvesting and extraction done during winter)
Socio-economic impact: low	

Provides additional income (30% of their income) to farmers (2000 people) in eastern region, as they can take it as off-season work
GNH impact : no impact
Psychological wellbeing: positive
Education: negative
Conservation of the environment: no impact or minor
Environmental issue for lemon grass: use a lot of wood to produce it, occurrence of frequent forest fires
Preservation and promotion of culture: no impact
Community vitality: positive
Priority actions
Need clear management guidelines for harvesting of lemon grass from the wild for distillation. Encourage and promote establishment of lemon grass plantation areas. Farmers need to be encouraged to grow lemon grass on their unproductive farm land and community forests. Find alternative energy such as electricity since it is the cheapest energy in Bhutan, so that less firewood is consumed for distillation. Training of distillers for distillation and packaging.

4. Services

4.1. Tourism

Export potential	High
Socio-economic impact (job creation)	High
GNH impact	Positive
Current export performance	$36 million (as direct gross earnings from international visitors alone)

Strengths/opportunities	Weaknesses/threats
Export performance / Export readiness	
2010: 41,000 visitors (+16 percent compared to 2009) Major markets: 1. United States of America (USA): 19 percent of total visitors. 2. Japan (11 percent), Germany (8 percent). Top Asian markets: China, Thailand, Singapore (high growth rates). Average length of stay: 7.6 days (as in the previous year). 676 registered local tour operators.	
World markets	
Demand mainly from September to December	Global downturn can cause a drop in visitor arrivals and foreign exchange earnings
Domestic supply	
Services: cultural tourism for festivals (March-April (sowing season), October–November (harvest season). **Transportation** Three domestic airports will be newly opened in 2011, in Yonphula (east), Bumthang (centre) and Gelephu (south) to develop tourism in Eastern Bhutan. **Service diversification** Increase the number of destinations within the country. New kinds of tourism: meetings, incentives, wellness, convalescence, trekking, eco-tourism (notably in the north). Make Bhutan not only a cultural product but a natural one. **Prospects** Target of 100,000 tourists for 2012 fixed by the 10th Plan.	**Services** Tourism is mostly seasonal (only over 6-7 months of the year). Most commonly cited areas for improvement by visitors: the lack of restrooms along the road, bad road conditions, lack of credit card and ATM facilities, inadequate internet facilities, Druk Air related complaints, limited diversity in food and restaurants, lack of garbage control and proliferation of dogs, etc. (Bhutan Tourism Monitor, 2010) **Business environment** Package tourism. Tariff mandated by the government. Basic package $200/day for 3-star accommodation ($25 commission abroad, $65 as royalties, $115 for the tour operator) including all meals, all transport and a guide. Everything is arranged by the tour operator. The basic package will increase to $250 in 2012. Requirements to be a tour operation are stringent. **Service diversification** For conventions and exhibitions, space problem, lack of amenities, superstructure problems (hotels, resorts, amusement parks). **Transportation** Only one choice of airline once a day (Druk Air). Another airline will operate next year.
Socio-economic impact: positive	

Job creation: 17,000 may be employed in the tourism industry: 8,000 people directly employed by tourism and 9,000 indirectly. (Tourism Council of Bhutan and McKinsey Consulting) **Hard currency generation:** Tourism is the largest earner of foreign hard currency. Direct gross earnings from international visitors alone, combined with earnings from Druk Air, the handicraft sector, transport and other services including regional tourism and other liable government taxes, should reach $80 million per year or higher (Bhutan Tourism Monitor, 2010). **Regional impact:** The development of tourism in the eastern and south-eastern parts of Bhutan could reduce the internal migration of population.	
GNH impact : positive	
Psychological wellbeing: positive	
Education: positive	
Conservation of the environment: positive	
Notably because of the policy of high-end, luxury tourism.	
Preservation and promotion of culture: positive	
Incentives to preserve the cultural identity and tradition.	Risk: converting culture into folklore. The number of tourists allowed cannot be expanded endlessly otherwise it would spoil the country.
Community vitality: positive	
Priority actions	
Training: UNCTAD Course: Train for Trade for Tourism. **Network:** The private sector together with TCB, the Handicraft Association of Bhutan, and the Guide Association of Bhutan.	

4.2. IT services

Export potential	Medium
Socio-economic impact (job creation)	Medium
GNH impact	Positive
Current export performance	Limited

Strengths/opportunities	Weaknesses/threats
Export performance / Export readiness	
The Thimphu TechPark Private Limited (TTPL) was scheduled to open on Nov. 1, 2011. It has 10,000 sq.ft. leased to the DITT for the Bhutan Innovation and Technology Centre (BITC incubation centre) and another 40,000 sq. ft. for FDI (i.e. foreign ITeS companies). The TTPL could accommodate many more companies in the existing building and host a variety of ITeS services, including data centres. It could also expand by building more facilities on site. The existing TTPL facility was built to meet the requirements of LEED Platinum Certification and will be the only building in Bhutan to achieve this impressive distinction - an added plus for foreign investors. 2010: 1 medical transcription services company offering services to an Indian-based ITeS operator, with 35 full-time staff and up to another 100 to be hired within the next few months. These services could readily expand with more marketing and outreach. The RGoB already subsidizes training of personnel to work in outsourcing, and the labour force, unlike that in India, is very receptive to ITeS work, even for low-paying contact centres and transcription ITeS. The only well-run medical transcription service company is ready to expand if it can get support to market itself within and beyond India. Young graduates (Royal University of Bhutan, Royal Institute of Management) have the basic skills required to work in ITeS firms, but could benefit from more training in the form of coop programmes and other vocational training in collaboration with Indian firms. The BITC could help generate the employment of several hundred people in the coming years. The RIM is well positioned to develop training programmes tailored to the specific needs of the ITeS sector. Access to inexpensive, abundant, renewable and reliable power is a major advantage. 2011-2012: GenPact will establish a call centre at the IT Park, with 700 direct hire positions with 3x multiplier effect expected by June 2012. On-going discussions with other ITeS firms (WiPro) will probably lead to hiring dozens of graduates, probably to work in India. The local market will likely generate a few hundred jobs (estimate) based on the establishment of contact centres and data centres to support the larger utility companies such as Bhutan Power Corporation and Bhutan Telecom.	
World markets	

Market opportunities: On the local level, local contact centres and data centres for larger utility companies such as Bhutan Power Corporation, Bhutan Telecom, etc., could probably provide work for a few hundred people.

Regional (India) and international markets are very large and represent a large business opportunity, both because of size and the major advantages that Bhutan has to offer.

The international market opportunity is very significant both in India and beyond. The global IT market is valued at $3.6 trillion globally in 2011, that for IT services at $818 billion (2011) and that of the ITeS market at $425 billion (2010), of which $124 billion is the value of all offshore destinations with India, accounting for $54 billion and a growth rate of 14 percent. Other offshore destinations are growing even more rapidly, e.g. China at 30 percent.

The India IT industry has 450 delivery centres operating in 60 countries. It hires specialized talent in developed markets, but costs are rising in India. The main market for Indian outsourcing services is the USA. The top three companies are Tata Consultancy Services, Infosys and Wipro, which are expected to hire 100,000 people in 2011, while the Indian IT sector as a whole will hire 200,000 people.

India's dominance in the outsourcing market has begun to show weakness in recent years due to market expansion, rising costs and high attrition rates. This is paving the way for other countries such as the Philippines, Ireland, Romania, Malaysia, and more importantly China to show their capability to provide outsourcing services. Bhutan could realistically account for several hundred jobs initially, with much greater numbers over time.

Data centre services provide another market opportunity which is valued globally as a component of "computing hardware" at about $391. The global "cloud computing" trend is pushing the development of data centres that are more energy efficient. Microsoft projects that annual data centre growth in 2011 at $50 billion, growing to $80 billion by 2020.

Green growth is another trend consistent with GNH that Bhutan could tap into. Investments in cleantech were valued at $243 billion in 2010 and are very dependent on ICTs. Bhutan could develop the human skills to offer green growth related services and possibly even technologies, although this would require developing the manufacturing industry. Many of these smart services could be offered as ITeS.

While the global downturn is affecting business worldwide, the National Association of Software and Services Companies (NASSCOM) of India projects 16-18 percent growth in IT exports in 2011-2012.

A major concern is the readiness of Bhutan to aggressively market itself outside of India. Bhutan's GNH values are actually highly consistent with green computing trends (including significant growth in cloud computing) that are driving large ICT transnational corporations such as Google, Microsoft, IBM, Apple, Amazon etc. to seek cheaper, greener and more reliable locations for the increasingly massive data centres.

Bhutan is well positioned to benefit from this trend, but needs to raise its profile internationally. Furthermore, India's energy needs are massive, and are not being met; as electricity is expensive in India, this represents a real business opportunity for Bhutan, which can market itself as an alternative ITeS destination. However Bhutan needs to move beyond India as its only trading partner and should attempt to woo other firms in the ITeS sector.

India's dominance in outsourcing has begun to weaken because of market expansion, rising costs and high attrition rates. This opens up opportunities, mainly for China but also for the Philippines, Ireland, Romania and Malaysia

Domestic supply

Services
Local: G2C, G2B, G2G, B2B, B2C, B2G services are growing starting with the G2C project.

Exports: BPOs (100 percent of companies in the IT Park should be BPOs (front office, back office).

Mobile services are slowly starting to take off. M-banking services are being established: this will help the growth of the ITeS industry and Internet banking and e-commerce in general. M-banking contribute to modernizing the economy by helping it to monetize, thus improving market efficiency and encouraging IT-enabled trade within and beyond Bhutan.

Business environment
IT Park funded by the World Bank ($9 million) with numerous incentives as at end of 2011. FDI of Singapore-based infrastructure company (74 percent). Incubation centre available. Cheap, green and reliable power at a time when these are in serious demand in India, the region and beyond.

IT Park offers a LEED Platinum certified (still to be certified) building for local entrepreneurs and businesses and especially for international TNCs in the outsourcing sector to establish themselves

Business opportunities
The "signalling effect": if a major foreign company decides to invest, this paves the way for other investors to follow the corporation's lead.

A major projected shortfall in energy as a result of growing demand in India should make Bhutan a serious choice for Indian and other firms which so far have refused to consider importing and/or developing hydropower from Nepal.

Access to several separate fibre-optic cable systems in India helps to ensure redundancy for ITeS services that require live connectivity.

Markets beyond India represent one of the most significant opportunities for Bhutan.

Labour force
RUB and RIM are preparing to meet demand. RIM is working on making graduates more business-ready for ITeS, etc.

A major Indian company from Bangalore (Infosys) has finally renounced its decision to come to the IT Park, since it could not find enough people to run a call centre (insufficient English skills). However GenPact has decided to go ahead.

Business environment
The RGoB provides free training to ITeS staff in Bhutan, as well as other incentives. But no training programme in the IT park incentives package.

No linkages between the IT Park and the Education City project.

There are no provisions for cyber-security to secure the e-commerce and e-banking environment and several web sites have been hacked in the recent past.

Intellectual property rights (IPR) are mentioned in the I&C & Media act, but there is no mechanism mentioned for securing these rights under Bhutanese law. This question needs to be looked at more closely as it can affect investment decisions from ICT companies. The Bank of Bhutan does provide Internet banking, but the extent of the services provided is unclear, as is the guarantee of security.

Mobile banking services are being introduced by Bhutan Telecom and by the Bhutan Development Finance Corporation Limited, but are still in their early stages.

More aggressive international marketing is necessary to attract investors in India and beyond.

To bring ITeS investors to the IT Park, quality of service (QoS) issues, related international broadband connectivity, and especially the reliability of fibre-optic cable connections on both the Indian and the Bhutan side need to be guaranteed. This is an ongoing challenge. Negotiations should continue with many different telecommunications service providers in India (Bharthi Airtel, Tata Communications) and Indian power companies to secure at least three separate and redundant fibre-optic connections to India and beyond (i.e. Bangladesh and the FLAG sub-marine fibre-optic cable at Cox's Bazaar via the Grameen Telecoms fibre-optic network in Bangladesh).

Socio-economic impact: medium

Regional impact: IT Park on the outskirts of Thimphu. Data centres mostly in Thimphu (Bhutan Power Corporation, Bhutan Telecom, etc.)

Job creation: 700 direct jobs, indirectly 1500 employees. Future job creation opportunities are very significant and young people are more likely to seek these jobs here than in India, where entry-level contact centre jobs are not as interesting and are lower paid.

The reach of mobile signals and the extension of the fibre-optic backbone across Bhutan will increase opportunities for trade and make markets more efficient. M-banking will help to monetize smaller markets for crafts and agriculture in Bhutan and open up the possibility of more trade in and outside of Bhutan. This should lead to more trade and employment in related industries.

Depends on Bhutan's willingness to market itself more aggressively in India and beyond.

GNH impact : positive
ICTs can contribute to greening the environment. However, ICTs also bring unwelcome features. Some ITeS contact centre work requires 24/24, 7/7 operations that can disrupt family life.
Psychological wellbeing: positive
Greater access to services, markets and opportunities throughout the country
Education: positive
Enhanced availability of knowledge resources. Availability of educational materials in Dzongkha and other languages. Textbooks and learning materials online (cloud computing). Greater access to learning opportunities, education, schools and specialized learning / education programmes and resources
Conservation of the environment: positive
Green industry, green data centres, reducing environmental impacts elsewhere, allowing entrepreneurs at the local and community level to market their goods and services locally and without having to move to urban centres. Dematerialization (including video conferencing) and e-government services reduce the need to travel for personal, business and administrative, educational and health reasons.
Preservation and promotion of culture: positive
ICTs could be used as elsewhere to document and preserve cultural artifacts and architecture, and enable everybody, both inside and outside Bhutan, to have easier access to documents and be able to learn from them.
Community vitality: positive
Community access facilities enhance participation of communities and people in the economic, cultural, religious and social life of the country. Community access contributes to creating greater social cohesion and a stronger sentiment of national unity. Community access strengthens the bond between government and people and between markets and people. It allows communities to become more self-sufficient by encouraging new opportunities, markets and services to all who want to take advantage of these.
Priority actions
More aggressive and international marketing of Bhutan's advantages as an ITeS and data centre destination. **Continue improving fibre-optic connectivity** inside and outside the country. **Push for access via India to the Bangladesh fibre-optic** network and from there to the FLAG sub-marine fibre-optic cable and the main Internet backbone in Asia. Continued regulatory reform starting with a review and rewrite of the I & C & Media Act of 2006. **Strengthen the intellectual property rights regime** and its safeguarding through the courts. Establish a certification authority and a Computer Emergency Response Team (CERT) to deal with the threat of cyber security. **Continue to refine educational and training programmes:** education (primary and secondary schools, RUB); community access (lifelong training); and other professional and vocational training programmes (RIM, the private sector, etc.) to meet the needs of a modern and ICT-enabled economy and society. More engagement and consultation with the business community in Bhutan and more support for capacity building of the Bhutan private sector. **Include training component in the incentives offered to foreign investors**, notably in the IT Park. **Build the capacity of the Bhutan Chamber of Commerce and Industry (BCCI)** to engage with the private sector inside and outside Bhutan. Encourage and help the BCCI to become a member of the International Chamber of Commerce (ICC) and the World Business Council for Sustainable Development (WBCSD). **Make the BCCI a partner in various training and marketing endeavours**. Develop online marketing platforms for the agriculture, crafts, and local and community-based tourism sectors. **Aggressively continue to make Bhutan a business-friendly place** by moving upwards and implementing reforms called for in the World Bank Doing Business standards. **Implement the General Agreement on Trade in Services (GATS)** and the Agreement on Basic Telecommunications (ABT) and then envisage the possibility of joining the World Trade Organization (WTO).

4.3. Education services

Export potential	Low
Socio-economic impact (job creation):	Low
GNH impact	Positive
Current export performance	None

Strengths/opportunities	Weaknesses/threats
World markets	
Education is a low-risk, recession-proof business. The working capital is negative since the students pay in advance to attend the school. For the time being, foreign universities are so far not allowed to establish branches in India, therefore opening up possibilities through Bhutan. Links are beginning through exchange programmes. Some Indian universities have expressed their interest.	Attractiveness in education is based on the economic power of the country and the reputation of the institutions. Institution size has become critical with the emergence of international rankings of universities. Education is more and more globalized. Students seek world-class labels, notably through the development of e-education.
Domestic supply	
Developing institutional linkages with reputable foreign institutions. DH&I has signed MoUs for collaboration with two international partners: TERI university in India, and the Raffles Institution (RI) of Singapore. The Royal University of Bhutan and Royal Institute of Management are partners in the project. **Business environment:** One-third of public expenditures are earmarked for the development of the health and education sectors. Education City project: not top-end but middle-end universities. Rigid restrictions for foreign universities to be set up in India. **Location:** Half way from Thimphu and Paro. **Business opportunities** The "signalling effect": once a major foreign institution decides to invest, it paves the way for other investors to follow.	Very young education system (1960s). However in the education business, a reputation built through history is essential. There is no PhD programme in Bhutan. In 2010 there were 1700 graduates. Only 500 came from Bhutan schools and the rest from India. Basic education is not yet satisfactory so that most Bhutanese students do not qualify for good Indian universities. Bhutan has designed a very ambitious project of building an Education City, following the models of education cities in Qatar and Dubai. Bhutan aims to achieve a hybrid of these two models. The goal is to attract twelve institutions with the highest possible reputation, including ideally two to three high-profile institutions. The Royal University of Bhutan will be a partner in the project. The Ministry of Education is not part of Education City. This project will target mostly international students. It aims to enrol 25-30 percent Bhutanese students, and the rest from all over the world. The objective is not to keep Bhutanese graduate students within the country, but to supply the needs of the Bhutanese labour market. **Business environment:** In contrast to Qatar or Dubai, the Bhutanese government does not have the financial resources to fund this project. In Qatar, the government provided 1 billion dollars for its project. The Bhutanese project will require 500 million dollars: the government therefore needs the participation of the private sector. Some consultations with the Bhutanese private sector have been conducted. The private sector has requested that tertiary education and management should be part of the project, and has emphasized the need for the latest ICT facilities. FDI investors need to be part of the project to ensure its sustainability. **Linkages:** Education City is not linked to any other project of industrial development. The IT Park has been designed completely separately. The cluster model is fed by the university. **Reputation** Bhutanese authorities seem to be relying on the "good name" and reputation of Bhutan, but appear to overestimate the country's reputation and visibility.
Socio-economic impact: low	

GNH impact: positive
Psychological wellbeing: positive
Education: positive
Conservation of the environment: no impact
Green industry
Preservation and promotion of culture: positive
Community vitality: no impact
Priority actions
Increase intake capacity of country's education system especially in the vocational training institutes Improve the quality of the country's education system. Generalize internship programmes in colleges and vocational training institutes

Box 5. Education City

The vision for Education City is to "create a hub for quality education through the establishment of premier and reputed educational institutions from around the world." (Concept note Education City, 2011).The courses and programmes that are currently planned are as follows: GNH as an alternative means of development, GNH programmes as part of Corporate Social Responsibility, Buddhist philosophy, environmental science and biodiversity, energy, ICT services, climate change, conservation and sustainable development, tourism and hospitality, herbal medicine, agriculture and forestry, political science (transitions to democracy), high-quality international schools (K-12).

Source: DHI-Infra Ltd. 2011, Bhutan Education City : City Project Concept Overview, 31 March.

4.4. Health services

Export potential	Low
Socio-economic impact (job creation)	Low
GNH impact	Positive
Current export performance	None

Strengths/opportunities	Weaknesses/threats
World markets	
Domestic supply	
Opportunities Two main medical education centres in Bhutan: the Royal Institute of Health Science (RIHS) and the Institute of Traditional Medicine Services. The RIHS gives courses mainly in nursing, pharmacy (a two-year pharmacy technician course) and physiotherapy. It trains auxiliary nurse midwives, general nurse midwives, assistant nurses and physiotherapists. It is attempting to upgrade to a medical college, in discussion with India.	A study commissioned by DHI on the potential to establish medical centres in Bhutan has recently concluded that the country does not as yet have the experience necessary establish medical centres aiming to attract foreign patients[6]. 30 hospitals, 171 doctors, 3924 persons per doctor (2008). Limited intake capacity of Bhutanese health-related institutes: in 2010, National Institute of Traditional Medicine (6 students); Royal Institute of Health Sciences (52 students).
Socio-economic impact: low	
GNH impact : positive	
Psychological wellbeing: positive	
Education: positive	
Conservation of the environment: no impact	
Green industry	
Preservation and promotion of culture: positive	
Preservation of traditional medicinal know how	
Community vitality: no impact	
Priority actions	

(Footnotes)

1 *+ $5 million through tourism, this amount being considered as part of tourism's export value.*

2 *Agaricum is also exported, mainly to Japan, Singapore, Thailand, and India, although in very limited quantity. It fetched about $27 per kg in Thailand in 2010.*

3 *During 2004 and 2008, ADB-supported projects helped install or upgrade 1,260 kilometres (km) of transmission lines and 1,770 km of distribution lines, bringing electricity to nearly 17,000 households. ADB's power sector interventions have enabled poor households to establish income-generating microenterprises and strengthened small-scale cottage industries that have benefited from targeted microcredits from ADB's Small and Medium Enterprise Sector Development Loan. In 2010, the SNV (Netherlands Development Organization) provided a grant of $0.27 million for the Rural Renewable Energy Development.*

4 *This is the amount paid by collectors and buyers to the government during auction for having harvested wild products.*

5 *PPPP or P4 is a newer concept where instead of public private partnerships, a new dimension on people- or community-focused dynamics is involved. This allows community empowerment and involvement in decision making and investments.*

6 *During our interview with DH&I, we learned that a feasibility study had been carried out to ascertain the business potential of a medical centre in Bhutan. The study had concluded that Bhutan was not yet ready to develop this business. We were not able to obtain a copy of the study.*

An initiative undertaken by the Royal Government of Bhutan and UNDP Bhutan under the auspices of the Enhanced Integrated Framework