United Nations Development Programme
Country: Malaysia

PROJECT DOCUMENT

Project Title: Developing and Implementing a National Access and Benefit Sharing Framework in Malaysia

UNDP Strategic Plan Environment and Sustainable Development Primary Outcome:BD-SP4: Strengthening the Policy and Regulatory Framework for Mainstreaming Biodiversity (Component 2)
UNDP Strategic Plan Secondary Outcome: Mainstreaming environment and energy

Expected CP Outcome(s): Outcome2: Strengthened institutional capacity in managing climate change, including achieving both the 2015 renewable energy target of 5.5% of total electricity generation mix and an enhanced national framework for biodiversity management of the central forest spine in Peninsular Malaysia and the heart of Borneo
Expected CPAP Output (s): Output 2.1: Policy and institutional framework on sustainable development, biodiversity management, stakeholders coordination, communication plan and community livelihood in line with Global Aichi biodiversity targets and other international obligations developed.
Executing Entity/Implementing Partner: Ministry of Natural Resources and Environment (NRE)
Implementing Entity/Responsible Partners: Forest Research Institute of Malaysia (FRIM), Center of Excellence for Biodiversity Law (CEBLAW), Sabah Biodiversity Centre (SaBC), Sarawak Biodiversity Centre (SBC)

Brief Description

Malaysia has a rich variety of tropical forests, wetlands and marine ecosystems, representing several Global 200 Ecoregions, and is recognized as one of 17 mega-diverse countries in the world. Malaysia's diverse indigenous peoples have developed and used over the years extensive traditional knowledge associated with biological resources. Yet Malaysia's natural resources face challenges from a wide range of pressures that threaten its biodiversity and ecological stability, including the loss of genetic resources and associated traditional knowledge. These biological resources offer huge potential for the development of the national biotechnology industry and to provide sustainable benefits to the country including its indigenous and local communities that still depend on them.

The long term solution that this project will pursue is to enable the potential of Malaysia's rich biodiversity and biological resources to generate economic and social benefits to the nation and key stakeholders including indigenous and local communities, in the form of business, employment, technology transfer and capacity building opportunities, through the discovery and development of new products such as pharmaceuticals, nutraceuticals, agro-chemicals, etc. These new opportunities will strengthen economic arguments and motivation for the conservation and sustainable use of the biological resources – Malaysia's globally significant tropical forests, wetlands and coral reefs - that contain the genetic material and help prevent the loss of associated traditional knowledge due to the loss of biodiversity.

The following barriers constrain this long term solution: (1) absence of an operational national regulatory and institutional framework for access and benefit sharing (ABS); (2) limited administrative and technical capacities for ABS implementation; and (3) lack of experience in developing and implementing ABS agreements.

The Project's Goal is *to contribute to the conservation and sustainable use of globally significant biodiversity in Malaysia.*The Project Objective is *to strengthen the conservation and sustainable use of biological and genetic resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing under CBD.*

While the baseline activities are substantial, the aforementioned barriers inhibit the realization of CBD's global objective of ensuring ABS and contribution from use of biological resources for biodiversity conservation and for meeting the Aichi targets. This Project aims to

remove these barriers and achieve the project objective through the implementation of three inter-connected components. Component 1 addresses the need for a national regulatory and institutional framework on ABS, including a financial mechanism to reinvest funds from ABS agreements back into biodiversity conservation. The operationalization of this framework will be supported by the strengthening of national institutional and stakeholder capacity in Component 2, including measures for the documentation and protection of traditional knowledge; and through demonstration of pilot ABS agreements, Prior Informed Consent (PIC) processes and a PIC/community protocol regarding ABS of indigenous and local communities' traditional knowledge in Component 3, which will provide experience and lessons learned to inform refinement of the framework and implementation processes. The three components will result in the following project outcomes:

Outcome 1: An operational national regulatory and institutional framework on ABS.

Outcome 2: Strengthened national institutional and stakeholder capacity for implementation of the national ABS framework.

Outcome 3: Best practice ABS processes (three) are demonstrated recognizing the principles of PIC and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.

The GEF funding will secure global environmental benefits through enhanced national contribution towards the achievement of the three objectives of the CBD (especially Objective 3 on ABS) and of the goals of its Strategic Plan. Specifically, the project will contribute towards reduced rates of biodiversity loss in Malaysia through: increasing awareness of the existence, use and option values of biological resources among key audiences; enabling greater economic benefits to the government and other stakeholders from genetic resources through the biotechnology industry, thereby providing incentives for biodiversity conservation; providing communities that are holders of genetic resources and associated traditional knowledge with livelihood options that result in economic benefits, thereby reducing pressures for unsustainable use and conversion of ecosystems; contributing to national development strategies and economic growth, reducing poverty and poverty-associated threats to ecosystem integrity; and contributing towards the maintenance of global ecosystem services, including avoided greenhouse gas emissions resulting from forest conversion.

Programme Period:	48 Months
Atlas Award ID:	00074369
Project ID:	00086812
PIMS #:	5191
Start date:	September 15, 2013
End Date:	September 14, 2017
Management Arrangements:	NIM
PAC Meeting Date:	TBD

Total resources required (total project funds)
$ 7,803,000
Total allocated resources (UNDP managed funds)

Regular (UNDP TRAC): $ 33,000
GEF: $ 1,970,000

Other (partner managed resources)

- Government: $ 5,800,000:
  - NRE $ 3,000,000
  - FRIM $ 828,000
  - SaBC $ 1,172,000
  - SBC $ 800,000

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Date/Month/Year

Agreed by (Executing Entity/Implementing Partner): _____
Date/Month/Year

Agreed by (UNDP): _____

Michelle Gyles-McDonnough
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Date/Month/Year

17 JAN 2014

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Acronyms and Abbreviations

ABI	Agro-Biotechnology Institute Malaysia
ABS	Access and Benefit-sharing
AGC	Attorney General's Chambers
APR	Annual Progress Report
ARR	Annual Review Report
ASEAN	Association of South East Asian Nations
AWGNCB	ASEAN Working Group on Nature Conservation and Biodiversity
AWP	Annual Work Plan
BFMD	Biodiversity and Forestry Management Division of NRE
BIOTEK	National Biotechnology Division
CAs	Competent Authorities
CBD	United Nations Convention on Biological Diversity
CBO	Community-based Organisation
CDR	Combined Delivery Report
CEBLAW	Centre of Excellence for Biodiversity Law
COP	Conference of the Parties
CP	Country Programme
CPAP	Country Programme Action Plan
DWNP	Department of Wildlife and National Parks
EA	Executing Agency
EPU	Economic Planning Unit, Prime Minister's Department
ESSP	Environmental and Social Screening Procedure (UNDP)
FAO	United Nations Food and Agriculture Organisation
FRIM	Forest Research Institute Malaysia
GEF	Global Environment Facility
IA	Implementing Agency
ILCs	Indigenous and local communities
IPharm	Malaysian Institute of Pharmaceuticals and Nutraceuticals
IPRs	Intellectual Property Rights
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
JPA	Public Service Department of Malaysia
JPSM	Department of Forestry Peninsular Malaysia
KKLW	Ministry of Rural and Regional Development
KPPK	Ministry of Plantation Industries and Commodities
MAT	Mutually Agreed Terms
MDTCC	Ministry of Domestic Trade, Co-operatives and Consumerism
MITI	Ministry of International Trade and Industry
MNC	Multi-national Corporation
MOA	Ministry of Agriculture
MOF	Ministry of Finance
MOH	Ministry of Health
MOSTI	Ministry of Science, Technology and Innovation
MOU	Memorandum of Understanding
MTA	Material Transfer Agreement
MyIPO	Intellectual Property Corporation of Malaysia
MyTKDL	Malaysia Traditional Knowledge Digital Library
NBC	National Biodiversity Council (previously known as National Biodiversity-Biotechnology Council)

NCA	National Competent Authority
NCAP	National Capacity Action Plan
NCSA	National Capacity Self-Assessment
NGOs	Non-Governmental Organisations
NIM	National Implementation Modality
NPBD	National Policy on Biological Diversity
NPD	National Project Director
NPIF	Nagoya Protocol Implementation Fu nd
NRE	Ministry of Natural Resources and Environment
NSC	National Steering Committee
ODA	Official Development Assistance
PA	Protected area
PBC	Perak Bio Corporation SdnBhd
PIC	Prior Informed Consent
PIR	Project Implementation Report
PM	Project Manager
PMU	Project Management Unit
R&D	Research and development
RTA	Regional Technical Advisor
SaBC	Sabah Biodiversity Centre
SBAA	Standard Basic Assistance Agreement
SBC	Sarawak Biodiversity Centre
SCR	Security Council Resolutions
SRF	Strategic Results Framework
TK	Traditional Knowledge
TOR	Terms of Reference
TWG	Technical Working Group
UM	University of Malaya
UMS	Universiti Malaysia Sabah
UN	United Nations
UNDP	United Nations Development Programme
UNDP-CO	UNDP Country Office
UNDP/GEF RCU	UNDP/GEF Regional Coordination Unit
UNEP	United Nations Environment Programme
WIPO	World Intellectual Property Organization
USM	University of Science Malaysia
UTM	University Teknologi Malaysia

SECTION I: Elaboration of the Narrative

PART I: Situation Analysis

INTRODUCTION

1. Located in tropical South East Asia, Malaysia has a rich variety of tropical forests, wetlands and marine ecosystems, representing several G200 Ecoregions[1] andis recognized as one of 17 mega-diverse countries in the world[2]. Malaysia's diversity of indigenous peoples have long made use of these biological resourcesand have developed and used extensive traditional knowledge about their uses including medicinal, nutritional and ornamental purposes. Up to November 2012, more than 800 species of medicinal and aromatic plants had been documented through consultation with indigenous peoples in Peninsular Malaysia, and 760 plants used in traditional knowledge (TK) had been documented in Sarawak. Yet Malaysia's natural resources face challenges from a wide range of pressures that threaten its biodiversity and ecological stability.These pressures include competing land use for socio economic development and have the potential toaffect the diversity and abundance of flora and fauna, including species whose biological values are yet to be fully assessed and tapped.The loss and degradation of biodiversity among others, also leads to the loss of associated TK, which is area and tribe specific.

2. Malaysia's rich biological heritage has huge potential to be explored for new wealth creation and to enhance the development of the nation in line with national policies on biological diversity and biotechnology. At present, Malaysia does not have a national regulatory framework on access and benefit-sharing (ABS), although the states of Sabah and Sarawak have established related legal frameworks.Anational ABS regulatory framework is thus needed to fulfil Malaysia's legal obligation to fully implement CBD, create a standard ABS framework for the whole of Malaysia; ensure that all bio-prospecting initiatives are legally carried out and the benefits fairly and equitably shared; ensure that collaborations contribute towards national capacity for biotechnology development; promote the recognition of TK associated with biological resources; give value to biological resources and thus drive the need for conservation and sustainable use; and enablethe indigenous andlocal communities (ILCs) who are custodians of these resources and associated TK to receive benefits and alternative livelihood opportunities.

3. The long term solution that this project pursues is to enable the potential of Malaysia's rich biodiversity and biological resources to generate economic benefits to the nation and key stakeholders including ILCs, in the form of business, employment, technology transfer and capacity building opportunities, through the discovery and development of new products such as pharmaceuticals, nutraceuticals, agro-chemicals, etc. These new opportunities will strengthen economic and social arguments and political motivation for the conservation and sustainable use of biological resources – Malaysia's globally significant tropical forests, wetlands and marine ecosystems - that contain the genetic material. The project will focus on supporting and

[1] http://en.wikipedia.org/wiki/Global_200 Accessed 18 March 2013
[2] http://www.biodiversitya-z.org/areas/26 Accessed 18 March 2013

piloting the establishment of an operational national regulatory and institutional framework for ABS in Malaysia, which is essential to support the development of a national bio-prospecting industry.

CONTEXT AND GLOBAL SIGNIFICANCE

Biodiversity context

4. Malaysia belongs to the Sundaland biogeographical region which comprises the Malay Peninsula and the Malay Archipelagic islands of Sumatra, Java, Borneo, and surrounding smaller islands and has been identified as the Sundaland hotspot, a mega-biodiversity region with a wide array of coastal, marine and terrestrial eco-systems. Sundaland is further divided into eco-regions. The global significance of Malaysia's biodiversity is reflected in the representation of several G200 Ecoregions in East and West Malaysia, including tropical lowland, mangrove, peat and montane forests, and marine ecoregions (Sulu-Sulawesi Marine Eco-region and the Andaman Sea)[3] and in its recognition as one of 17 mega-diverse countries in the world[4]. The flora of Malaysia is exceedingly rich and is conservatively estimated to contain about 15,000 species of flowering plants, more than 2,000 species of ferns, 800 mosses and 700 fungi[5]. Many of these are found nowhere else in the world. In Peninsular Malaysia, for example, well over 26% of the tree species are endemic. Higher endemism is expected in the herbaceous flora with some of the larger genera estimated to be endemic in more than 80% of their species. Diversity is also high among the fauna, with about 306 species of wild mammals, more than 742 species of birds, 567 species of reptiles, 242 species of amphibians, more than 449 species of freshwater fish and more than 150,000 species of invertebrates[6]. Marine biodiversity in Malaysia is globally significant, with coral diversity and associated fish diversity consisting of 221 and 298 species respectively, both representing 80 % of the total species found in an equivalent area in the "Coral Triangle", and other marine species of conservation importance such as dolphins, turtles and dugong also occur.

5. Malaysia also has significant cultural diversity, comprising some 18 sub-ethnic *orang asli* groups in Peninsular Malaysia, 3 major ethnic and 30 sub-ethnic communities in Sabah; and 30 ethnic communities in Sarawak. Up to November 2012, more than 800 species of medicinal and aromatic plants has been documented through consultation with indigenous peoples in Peninsular Malaysia and 760 plants used in traditional knowledge (TK) had been documented through consultation with indigenous peoples in Sarawak.

Legal and Policy context

6. Malaysia's rich biological heritage has huge potential to be explored for new wealth creation and to enhance the development of the nation in line with the National Policy on Biological Diversity (NPBD, 1998) and the National Biotechnology Policy (2005) and within the wider framework of the New Economic Model (2010) and the 10th Malaysia Plan (2011-2015).

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[3] http://en.wikipedia.org/wiki/Global_200 Accessed 18 March 2013

[4] http://www.biodiversitya-z.org/areas/26 Accessed 18 March 2013

[5] Source: http://www.nre.gov.my/English/Biodiversity/Pages/biodiversity.aspx Accessed 18 March 2013.

[6] Source: http://www.nre.gov.my/English/Biodiversity/Pages/biodiversity.aspx Accessed 18 March 2013.

The Convention on Biological Diversity (CBD) gives the recognition that biological diversity is the sovereign right of a nation opposed to the view that biological resources are the common heritage of mankind. Thus nations have the full right over biological resources within their boundaries and can regulate the access to these resources. One of the three objectives of the CBD, as set out in its Article 1, is the *"fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding"*. Article 15 of the CBD provides the framework relating to the rights and obligations regarding access to genetic resources and their subsequent use, for which national governments are obliged to take legal, administrative or policy implementing measures.

7. In Malaysia's case, the NPBD (1998) states that a review of national legislation should be carried out to identify the areas where new legislation or enhancements are required to put into effect the commitments under the CBD, including those required to implement codes of practice for collectors, and to protect intellectual property rights (IPRs) and other ownership rights. The NPBD also identifies the sustainable utilisation of biological diversity and the equitable sharing of the benefits arising there from as a strategy for biodiversity conservation, and proposes the undertaking of appropriate activities in bio-prospecting as a means by which this can be done. The National Capacity Action Plan (2008) further establishes the need to build capacity in ABS and TK. The implication is that there is a need for the establishment of a regulatory framework for access to biological resources and benefit-sharing. The implementation of national measures will also have to take into account other international processes which are relevant to, and impact on, the development in this area.

8. At present, only Sabah and Sarawak have established a legal framework relating to access to biological resources and ABS. Sarawak Biodiversity Ordinance was first enacted in 1997 and revised in 2003 to address issues related to biodiversity including ABS and TK. Further, in 2004, Sarawak enacted the Sarawak Biodiversity Regulations to regulate access to biological resources which are declared by Sarawak Biodiversity Council as protected resources[7] and knowledge supplied by natives. Sarawak is planning to revise these laws to include provisions regulating benefit sharing and compliance.The Sabah Biodiversity Enactment was passed in 2000 which among others establishes the legal framework for ABS in Sabah. The Sabah Biodiversity Centre (SaBC) is in the process of enforcing this enactment pending the adoption of the subsidiary regulations to enable its full implementation.

9. Malaysia does not have a national regulatory framework on ABS but NRE has formulated a draft ABS Bill (in process of consultation). In the absence of a regulatory framework, the guideline to conduct research in Malaysia administrated by the Economic Planning Unit (EPU) is used for foreign research purposes.

10. An ABS regulatory framework is thus needed to:

[7]The criteria for determining protected resources are plants with special medicinal, pharmaceutical, therapeutic, agricultural or nutritional values, required for research by SBC and for conservation and preservation purposes.

- Fulfill Malaysia's legal obligation to implement Article 15 and other relevant articles of the CBD;

- Ensure all bio-prospecting initiatives are legally carried out with the prior informed consent (PIC) of the authority in Malaysia. This will avoid biopiracy where biological resources are taken without permission and developed for commercialisation (and at times patented) and the country does not get anything in return. Without a legal framework, a bio-prospector is NOT obliged to get consent from any authority and materials can flow out easily from the country (although they are required to comply with the EPU Guideline referred to earlier). Even if biopiracy is discovered, no preventive, punitive or compensatory measures can be taken effectively without national law;

- Ensure that an agreement is signed between the bio-prospector and the authority in Malaysia so that benefits are fairly and equitably shared. These benefits may include not only upfront fees for the bio-prospecting activity but also at every stage of the development of the resource up to its commercialisation including transfer of technology and non-monetary benefits prescribed under the CBD;

- Ensure that not only monetary benefits but also gains from joint collaborations to ensure transfer of technology so as to build the needed capacity for national biotechnology development;

- Promote the recognition of TK associated with the biological resources. This knowledge also has to be not only protected but, when shared, fair and equitable benefits should accrue as stipulated in Article 8(j) of the CBD and in the NPBD;

- Give value to our biological resources and thus drive the need for conservation and sustainable use; and also help to ensure that local communities who are custodians of these resources and the TK reap benefits and are provided with alternative livelihoods;

- Create a standard ABS framework for the whole of Malaysia (Sabah & Sarawak have their own laws at present). This will also ensure a fair benefit-sharing regime throughout Malaysia as all states share the same biodiversity.

11. Malaysia's legal framework on ABS does not intend to impede the development of biotechnology, but to complement the biotechnology industry to ensure Malaysia reaps maximum benefits from the country's rich biological heritage by having a proper legal instrument to regulate access and to spell out how benefits must be shared.

THREATS, ROOT CAUSES AND IMPACTS

12.In common with other South East Asian countries, Malaysia faces challenges from a wide range of issues that threaten its biodiversity and ecological stability. Most directly, these concern the competing land use for socio-economic development such as plantations, urban and

industrial development, and water storage dams.Urban and industrial development contributes to the degradation of ecosystems and biodiversity and at times cause pollution. Other factors include fragmentation of forested landscapes by roads and other infrastructure, invasive alien species, and climate change. Natural resources are subject to increasing pressures from rapid social and economic change resulting from trade liberalization and participation in the global economy. These developmental activities lead to increased demand of land use which ultimately affects the biodiversity including rare, globally threatened and endemic species whose biological values are yet to be fully assessed and tapped.

13. In the context of the present project, the degradation or loss of biodiversity also leads to the loss of associated traditional knowledge, which is area and tribe specific, thus varying from place to place, community to community and tribe to tribe. Therefore, the loss and degradation of habitats, fauna and flora leads to the loss of knowledge held by particular tribal communities. The convenience of modern medicine, easily available modern technology, increasing connectivity with urban civilization, and the lack of awareness of the importance of TK among communities also cumulatively contribute towards the progressive erosion of traditional knowledge.

14. There is also a lack of information on the value and quantity of biological resources that can be utilized for availing through ABS principles to derive monetary and non-monetary benefits.

15. The main root cause of biodiversity loss in Malaysia largely centerss on the lack of economic value placed on biological resources and ecosystem services, and the lack of any national accounting system that would allow such values to be considered in economic planning processes. This includes actual and potential benefits from the exploration and exploitation of biological (genetic) resources.

16. The unclear jurisdiction and lack of control over land resources by indigenous peoples hinders the continuation of their traditional land management practices in the face of larger economic interests, resulting in the degradation and loss of natural resources and biodiversity, as well as the erosion of their customs and traditional knowledge.Also, the lack of access to information and opportunity for civil society input to economic development and land use planning processes constrains the transparent and accountable governance of natural resources and biodiversity.

17. The specific problem that this project will seek to address is the lack of a functioning national legal, institutional and financial framework that will enable the equitable sharing of benefits from the exploration and exploitation of biological resources and traditional knowledge between the state (national and state governments), commercial interests, and the owners and custodians of these resources and traditional knowledge.

LONG-TERM SOLUTION AND BARRIERS TO ACHIEVING THE SOLUTION

18. The long term solution that this project will pursue is to enable the potential of Malaysia's rich biodiversity and biological resources to generate economic benefits to the nation and key

stakeholders including ILCs, in the form of business, employment, technology transfer and capacity building opportunities, through the discovery and development of new biochemical products such as pharmaceuticals, nutraceuticals, agro-chemicals, etc. These new opportunities will strengthen economic arguments and motivation for the conservation and sustainable use of the biological resources – Malaysia's globally significant tropical forests, wetlands and coral reefs - that contain the genetic material. The project will focus on supporting and piloting the establishment of an operational national regulatory and institutional framework for ABS in Malaysia which is essential to support the development of a national bio-prospecting industry, including equitable participation in international bio-prospecting programmes and attracting international bio-prospecting companies to invest in Malaysia.

Barriers

The achievement of the above long term solution faces the following barriers:

19. ***Absence of operational national regulatory and institutional framework:***Limited support for the conservation and sustainable use of biological resources. There is currently lack of understanding of the social and economic values of biological resources, including ecosystem services such as climate and water regulation, maintenance of soil fertility, coastal protection, etc, as well as the potential value of biological resources through bio-prospecting activities. Consequently, multiple benefits are not fully realized in the absence of economic valuation of biodiversity. At present, there are insufficient levels of awareness regarding the value of biodiversity and its genetic resources among decision- and policy-makers, and the constituents to whom they respond, to ensure political support for assigning the levels of resources that are required for its conservation. In the case of genetic resources, lack of awareness among legislators of the purpose and provisions of ABS, as well as the potential economic benefits that it would unlock for the country is a key constraint hindering passage of the ABS Bill.

20. Differences in Federal and State jurisdictions and positions regarding the management and exploitation of biological resources also complicate their governance. The Malaysian Federal Government carries responsibility for establishing and implementing national policies and laws, and ensuring that the country's international obligations arising from its participation in international conventions such as CBD are effectively implemented. The States are accorded with the jurisdiction under the Federal Constitution over their land and resources, and depend to a large extent on their exploitation (e.g. mineral and timber resources) for State Government income. Consequently, differences in interest often arise regarding the conservation and sustainable management of biological resources and sharing of the benefits arising from the exploitation of natural resources. The East Malaysian States of Sabah and Sarawak further differ in having more advanced State legislation on biodiversityand ABS related subjects, which would need to be amended in order to ensure consistency with the proposed national ABS Bill.

21. ***Limited administrative and technical capacities for ABS implementation:*** Lack of capacity has been identified as a key constraint for the introduction of a national ABS regime across a wide range of stakeholders and at all levels – national, state, local / community and sectoral. The National Capacity Self-Assessment (NCSA) and National Capacity Action Plan developed in 2008 (NCAP), identified capacity gaps and related actions relating to CBD implementation concerning the policy and institutional framework; regulation and guidelines; federal and state

cooperation; inter-agency coordination; knowledge and information management; incentives; increasing the number of experts; research and development; and reporting framework and mainstreaming. At the national level, there is little understanding of ABS issues among sectors other than those directly involved in the conservation and development of biological resources, and even then there is a need to ensure consistency in the vision and rationale behind ABS, given the emergence of relevant initiatives on World Intellectual Property Rights (WIPO) and agricultural / plant genetic resources linked to other global instruments (ITPGRFA).

22. At the state level, capacity for implementation of ABS varies between individual states, with Sabah and Sarawak having dedicated responsible bodies, and Johor and Perak setting up their own structures on biodiversity and biotechnology. In general, there is a significant need for awareness raising, specific training and capacity building programmes for the related government departments (potential Competent Authorities) to administer ABS regulations, such as permitting arrangements in order to enable the efficient functioning and therefore profitability and attractiveness of bio-exploration and testing initiatives.

23. Other government institutions also require training inputs to ensure that they have the capacity to perform the roles of "checkpoints" as provided for in the Nagoya Protocol. Checkpoints are one of the key components under the compliance measures established by the Nagoya Protocol. To ensure an effective monitoring and tracking system, key checkpoints must be strengthened. These checkpoints could include the intellectual property examination offices, authorities involved in regulating products or giving marketing approval,research institutions subject to public funding andentities publishing research results relating to the utilisation of genetic resources.

24. At community level, there is lack of awareness among indigenous and local communities about the potential and availability of biological resources and associated traditional knowledge as a new source of wealth creation and alternative livelihood. The absence of such understanding contributes towards the loss and degradation of bio-resources through unsustainable patterns of land use, which also leads to the loss of associated traditional knowledge. The absence of useful and user friendly promotional materials, guidelines and manuals on the value of bio-resources and associated traditional knowledge and the ABS principles enshrined in the CBD in local language is a barrier in this case. Translation of such materials into local languages is, therefore, important for the wide use of these tools by the stakeholders, plus support from appropriate training programmes is needed for the holistic success of this project.

25. Within the biotechnology industry, scientific researchers are among the key stakeholders that will be directly affected by the ABS law when it comes into force. To ensure full participation and compliance of the law by these resource users, awareness raising activities must be conducted, targeting universities, research institutions and biotechnology companies. They must be made aware of this new law, including their obligation to obtain permits from CAs whenever there is research or bio-prospecting and to obtain PIC from resource providers. Bio-prospectors in particular must be informed of their obligation to share benefits equitably with the resource providers, including possible technology transfer (non-monetary benefits).

26. ***Lack of experience in developing and implementing ABS agreements:*** While a number of agreements are already in place for bio-prospecting partnership activities, these have not had to comply with CBD / Nagoya Protocol provisions for PIC and mutually agreed terms (MAT) in the absence of a national law to implement these provisions (only the state laws in Sabah and Sarawak). Therefore, while such bio-prospecting is regulated, it may not necessarily take account of the PIC, rights and needs of ILCs and other stakeholders, or include any requirement for the equitable sharing of benefits. There is therefore a strong need for model examples of the consultative processes involved in development of ABS agreements, including PIC and MAT. Further, it is important that all players are able to understand the provisions and implications of such agreements, the sometimes complex issues involved, and ability to negotiate future benefit sharing in the event that commercial products are derived from the process.

STAKEHOLDER ANALYSIS

27.During project preparation, a preliminary stakeholder analysis was undertaken in order to identify key stakeholders, assess their interests in the project and define their roles and responsibilities in project implementation. **Table 1** below lists the key stakeholders associated with establishing a national ABS framework in Malaysia.

Table 1. Roles and Responsibilities of Stakeholders in Project Implementation

Stakeholder	Roles and Responsibilities
Stakeholders with direct involvement	
Ministry of Natural Resources and Environment (NRE)	The national executing agency for the project. The agency also houses the GEF Operational Focal Point (OFP) and coordinates and implements GEF financed projects. Responsible for coordination of environmental issues including CBD implementation, and promulgation of the draft ABS legislation at Federal level.
Economic Planning Unit (EPU)	Responsible for formulating policies and strategies for socio-economic development and evaluating and recommending development programmes and projects. TheEnvironment and Natural Resources Economics Section (ENRES) and International Cooperation Section would be involved.
State EPUs	Responsible for formulating policies and strategies for socio-economic development and evaluating and recommending development programmes and projects at state level.
Forest Research Institute Malaysia (FRIM)	Research institution covering a wide range of forest-related subjects. Involved in the nature-based product discovery investigations and traditional knowledge documentation of Orang Asli (indigenous peoples of Peninsular Malaysia). FRIM is an official implementing partner and co-financier, and will provide technical inputs for project implementation including responsibility for executing demonstration activities in Peninsular Malaysia for the third component of the project. Member of project's Technical Working Group.
Sarawak Biodiversity Centre (SBC)	Research institution and ABS regulator in Sarawak involved in the nature-based product discovery investigations and traditional knowledge documentation of Orang Asal (indigenous peoples of Sarawak). SBC is an official implementing partner and co-financier and will provide technical inputs for project implementation including responsibility for executing demonstration activities in Sarawak under the third component of the project. Member of project's Technical Working Group.
Sabah Biodiversity Centre (SaBC)	ABS regulator in Sabah. Involved in traditional knowledge documentation of Orang Asal (indigenous peoples of Sabah). SaBC is an official implementing partner and co-financier, and will provide technical inputs for project implementation including responsibility for executing demonstration activities in Sabah under the third component of the project. Member of project's Technical Working Group.
Centre of Excellence for Biodiversity Law (CEBLAW)	Centre of excellence in biodiversity law, part of the national University of Malaya, is an official implementing partner and responsible for providing expertise in ABS laws and related issues and in executing the ABS law-related outputs of the project.
Department of Orang Asli Development (JAKOA)	Responsible for eradicating poverty among the Orang Asli, improving their health, promoting education, and improving their general livelihood. Could play a supportive role in the PIC process involving indigenous peoples.
Stakeholders with indirect involvement	
Malaysian Agricultural Research and Development Institute (MARDI)	Mandated to conduct research in agriculture, food and agro-based industries. MARDI's feedback to ABS implementation in cases involving genetic resources for food and agriculture is crucial.
Forestry Department Peninsula Malaysia (JPSM)	Responsible for forest lands and nature reserves conservation in Peninsular Malaysia. Potential Competent Authority responsible in granting access permits.
State forestry departments	Responsible for forest lands and nature reserves conservation at state level. Potential Competent Authorities responsible in granting access permits in

	respective state.
Ministry of Science, Technology and Innovation (MOSTI)	Responsible for steering the national biotechnology agenda pursuant to the National Biotechnology Policy 2005. BiotechCorp under MOSTI was established as the one-stop centre for biotechnology industry development in Malaysia and IPharm undertakes discovery, development and commercialization of pharmaceutical and nutraceutical products.
Ministry of Agriculture & Agro-based Industry (MOA)	Responsible for legislating, planning and implementing agricultural development programs, policies and strategies; evaluating, coordinating and ensuring the implementation of agro-food agriculture development projects/programs and conducting R&D and innovation that enhance productivity and competitiveness in the agro-food sector. Their involvement is important to ensure that the ABS framework is implemented in a supportive manner with the other international instruments like the ITPGRFA.
Ministry of Plantation Industries and Commodities (KPPK)	Responsible for formulating policies and strategies for the overall development of the plantation and the commodity sectors; and supervising financial management and implementation of plantation and commodities development programmes. Their involvement is crucial to ensure the implementation of the ABS framework does not affect the normal trading of commodities.
Ministry of Health (MOH)	Responsible, among others, for reviewing research involving human subjects
Ministry of Rural and Regional Development (KKLW)	Responsible in rural development and improving the well being of rural residents.
Ministry of Domestic Trade, Cooperative and Consumerism (MDTCC)	Responsible for monitoring domestic trade, advocating and protecting consumers' rights, protection of intellectual properties as well as registration and governance of businesses.
Universities	Host research institutions/departments which are the resource users of biodiversity in Malaysia. Their involvement in related activities such as awareness events is important to create awareness for researchers within universities who are conducting research and development on biodiversity to ensure compliance with the ABS regulatory framework.
Indigenous and local communities (ILCs)	Partners in traditional knowledge documentation programmes. Their PIC must be sought for ABS agreements in the third component of the project.
Private sector organizations, businesses and research institutions	Biotechnology companies are key stakeholders as they are potential users of biological resources in Malaysia. Their involvement in related activities such as awareness events is important.
NGOs - national and international environmental NGOs (e.g. TWN, MENGO)	Important for consultation, feedback and awareness raising. Assist to monitor compliance with the ABS regulatory framework by resource users.
National indigenous peoples NGOs and indigenous peoples associations (e.g. COAC, PACOS, SADIA etc)	Important for technical support, consultation and feedback, training and monitoring. High capacity for grass roots action with indigenous and local communities. Provide useful insights and views relating to the reassertion of governance structures grounded in customary law and practices of indigenous peoples.

BASELINE ANALYSIS

Policy and regulatory environment

28. Significant progress has been made in establishing the national policy and regulatory environment for the introduction of a national ABS regulatory framework in Malaysia, a draft ABS Bill under consultation at nationallevel.

29. At present, only Sabah and Sarawak have established a legal framework relating to access to biological resources and benefit sharing (ABS). Sarawak Biodiversity Ordinance was first enacted in 1997 and revised in 2003 to address issues related to biodiversity including ABS and TK. The Sarawak Biodiversity Council was established in February 1998, followed by the establishment of the Sarawak Biodiversity Centre (SBC) in the same year to assist the Council with the implementation of the legislation. The Sarawak Biodiversity Centre (Amendment) Ordinance 2003 entrusted the Sarawak Biodiversity Centre to initiate intensive biotechnology based research and development on the State's biological resources, particularly those that have been utilised by indigenous communities, to authorize access to Sarawak's protected resources and to negotiate sharing of benefits derived therefrom, and to facilitate the documentation of the fast disappearing traditional knowledge of indigenous communities on the utilisation of biological resources. Further, in 2004, Sarawak enacted the Sarawak Biodiversity Regulations to regulate access to biological resources which are declared by Sarawak Biodiversity Council as protected resources[8]and knowledge supplied by natives. Sarawak is planning to revise the law to include provisions regulating benefit sharing and compliance.SBC has then set up the Traditional Knowledge Documentation Programme to implement its third function, with a total budget of [9]USD 800,000 over the period 2013-2015.

30. The Sabah Biodiversity Enactment was passed in 2000 which among others establishes the legal framework for ABS in Sabah. The Sabah Biodiversity Centre (SaBC) is in the process of enforcing this enactment pending the adoption of the subsidiary regulations to enable its full implementation. SaBC has a total projected operational budget of USD 674,000, plus a projected developmental budget of USD 3,893,000 for the period 2013-2016.

31. At the national level, NRE is the focal point for implementation of CBD and has led on the development of the National Policy on Biological Diversity (1998) and its implementation. The Biodiversity and Forestry Management Division of NRE has an annual operational budget of USD 940,000 and a developmental budget of USD 1,800,000 for the period 2011 – 2013. With reference to ABS, NRE was Executing Agency for the UNDP project "Capacity development for the formulation of a policy and regulatory framework for access and benefit-sharing of biological resources in Malaysia" (2010 – 2012) which invested USD 540,000 into the preparation of the draft national ABS Bill; blueprint on infrastructure, personnel and financial needs to implement the ABS Bill; and raising awareness among key stakeholders. The UNDP project accomplished a final draft national ABS Bill after extensive consultation with a wide range of stakeholders, and which the present project will follow up through to approval. It also supported the consultation onnational position with regard to accession to the Nagoya Protocol, which holds that the national ABS Bill must first be put in place with supporting measures before accession is considered. A study of *Institutional Arrangements for Implementing ABS law and its Subsidiary Regulations* was also completed. The study emphasizes personnel needs for the implementation of the ABS law and its subsidiary regulations in comparison with current capacity and identifies possible linkages with the proposed National Biodiversity Centre, which will be considered as a possible NCA for ABS under the present project. Awareness activities were also conducted in

[8]The criteria for determining protected resources are plants with special medicinal, pharmaceutical, therapeutic, agricultural or nutritional values, required for research by SBC and for conservation and preservation purposes.
[9] Exchange rate of USD1 = Ringgit Malaysia (RM) 3.0 applied (April 2013).

relation to CBD and Nagoya Protocol ABS requirements. The present project will build on these achievements by increasing the awareness of national ABS requirements in stakeholders at all levels, including researchers, public, ILCs and industries, and develop a section of the national clearing house mechanism portal on the national ABS framework and related information resources.

32. The GEF supported National Capacity Self-Assessment ($270,000), through the resulting National Capacity Action Plan 2008 (NCAP) proposed activities relating to the development and implementation of a programme for ABS and the establishment of a national programme on traditional knowledge (TK) related to conservation of biodiversity. Therefore the capacity gaps that were identified must be addressed in order to improve and enhance existing implementation in terms of policy and institutional framework; regulation and guidelines; federal and state cooperation; inter-agency coordination; knowledge and information management; incentives; increasing the number of experts; research and development; reporting framework and mainstreaming.

33. The National Biotechnology Policy was launched in 2005, a commitment by the government to develop biotechnology as a platform for an innovation-led economy. The National Biotechnology Division (BIOTEK) in MOSTI is responsible for steering the national biotechnology agenda. The Policy will be implemented through 3 phases, with the projected total revenue of USD 90 billion contributing 5% to the total GDP of Malaysia. Under phase I of the National Biotechnology Policy, the government has established BiotechCorp (Malaysian Biotechnology Corporation) as the one-stop centre for biotechnology industry development in Malaysia. Under this Policy, several National Biotechnology Institutes have been established including the Agro-Biotechnology Institute Malaysia (ABI)[10], the Malaysian Institute of Pharmaceuticals and Nutraceuticals (IPharm)[11], and the Genom Malaysia[12]. The ABI undertakes research, development and commercialisation projects related to agro-biotechnology in cooperation with various universities, research institutions and industry players whereas the IPharm undertakes R&D to accelerate the discovery, development and commercialization of pharmaceutical and nutraceutical products. The Genome Malaysia is a network-based not-for-profit organization undertaking basic and translational research aimed at the generation of new intellectual properties and technologies for economic development via large-scale national and international collaborative projects in Comparative Genomics and Genetics, Computational and Systems Biology, Structural and Synthetic Biology and Metabolic Engineering. BiotechCorp received annual deferred income of USD74.3 million in 2010 and USD65.3 million in 2011[13], nearly all of which was from developmental grants.

34. Two states in Peninsular Malaysia have also taken steps to develop their biotechnology frameworks. **Perak** developed the Perak Biotechnology Strategic Blueprint 2011 – 2015, and set up Perak Bio Corporation Sdn Bhd (PBC) in 2009 as the main driver for the development of biotechnology activities in the State. It has developed a Strategic Development Programme with six Policy Thrusts including the establishment of the Biodiversity Management Centre as the focal point for bio-prospecting and other biodiversity based research and development (R&D)

[10] http://www.biotek.gov.my/index.php?option=com_content&view=article&id=64&Itemid=63
[11] http://www.ipharm.gov.my/v4.1/background.php. See also, feedback to Questionnaire by IPharm.
[12] http://www.genomemalaysia.gov.my/v3/content/overview.html
[13] http://www.biotechcorp.com.my/wp-content/uploads/2011/11/publications/Annual_Report_2011.pdf (p139)

activities. The Centre will be responsible to provide access for bio-prospecting and other biodiversity based activities in biotechnology R&D on the State's biological resources and to facilitate the documentation of the Traditional Knowledge (TK) of indigenous communities on the utilisation of biological resources.[14]

35. The **Johor** Biotechnology and Biodiversity Corporation was incorporated in 2006 under the the enactment of Johor Biotechnology and Biodiversity Corporation (Enactment No 3 of 2006). With the vision to be the prime mover of biotechnology and biodiversity activities towards making Johor the southern gateway of the Malaysian biotechnology industry, J-BioTech has functions including promoting, intensifying, facilitating and undertaking economic and social development of biotechnology and biodiversity; and promoting and coordinating biotechnology and biodiversity activities by the government, local authorities, public authorities, companies, corporations and individuals.[15]

Bio-prospecting Activities and Traditional Knowledge

36. Despite the lack of a national regulatory framework, there are a number of agreements in place regarding bio-prospecting activities. These include initiatives at both federal and state levels. As they are not directly related to the demonstration projects in Component 3 of the GEF Alternative, they are listed in **Annex 1** for reference. Bioprospecting is also closely related to the traditional knowledge on biological resources held by indigenous and local communities in Malaysia, where government organizations such as FRIM, Sabah Biodiversity Centre and Sarawak Biodiversity Centre have been engaged in both documentation of TK and development of prototypes in partnership with local and international organizations. While these research and development programmes remain in place, the results focus mainly on the documentaion of TK and development of the related products in order to achieve national and local economic benefits, and little emphasis is placed on developing, refining and sharing knowledge on the participatory processes involved in PIC and MAT and benefit sharing related to ABS agreements for product development, as well as the linkage between bioprospecting and biodiversity conservation at local level.Therefore, capacity for implementation of a comprehensive ABS regime at state and national levels will remain limited, and barriers for disseminating the related knowledge for practical application in ABS implementationwill remain. Linkage between bioprospecting and biological resource conservation at local level also remains weak, affecting the security of these resources.The pilot projects supported by the GEF intervention will ensure that these processes are systematically documentened and shared in order to inform national, regional and global audiences, and that biodiversity conservation benefits are achieved at the local level through increased awareness and resource security.

Pilot Project 1

37.The first pilot project concerns the documentation of traditional knowledge associated with biological resources of the Kensiu (Kedah state) and Kintak (Perak state) Orang Asli for the development of one prototype product for potential commercialization, coordinated and executed

[14] http://www.slideshare.net/jongos89/perak-biotechnology-strategic-blueprint-2011-2015-13402575

by FRIM. FRIM's TK research team has completed the TK documentation of 11 (with two more in progress) out of the total of 18 ethnic groups of Orang Asli in Peninsular Malaysia.[16] This work has been supported by USD775,000 in allocations from the 9th (2006-2010) and 10th (for 2011-2013) Malaysia Plans through NRE. This pilot will complete national coverage of Orang Asli traditional knowledge resources, contributing towards a national database under development by FRIM and the preservation of such knowledge.

38. There is also an ongoing NRE project on the development of a Community Protocol for PIC with the allocation of US$10,000.[17] ILCs to be surveyed are located at: Kampung Ulu Geroh (Perak), Kampung Paya Mendoi (Pahang) and RPS Iskandar (Pahang). The outcome of this project will contribute towards the implementation of PIC and MAT principles in this pilot project.

39. FRIM's capacity for bioprospecting work includes laboratories for chemical analysis, biological analysis, anti-microbial research, cell culture, a Herbal Technology Centre (GMP Compliant[18] for pilot scale processing), and a Quality Control laboratory (ISO17025). Equipment available includes HPLC, LCMS, FTIR, NMR[19] and spectrometer. FRIM also hosts a comprehensive herbarium. FRIM's staff includes a wide range of scientists working on applied botanical subjects including herbal extraction and herbal formulation.

Pilot Project 2

40. The second pilot project concerns the development of a pilot ABS agreement with Semai Orang Asli (Perak state) for the development of a prototype nutraceutical[20]/ healthcare product based on a Fabaceae species for initial commercialization, also coordinated and executed by FRIM. This builds on baseline work by FRIM with this community, which has identified several potential prototypes based on their traditional knowledge, supported by two PICs. This pilot will establish a third PIC, forest permit and collaborative R&D agreement for the collection, validation and preparation of one species of Fabaceae for the development of the nutraceutical/healthcare product, followed by laboratory analysis procedures leading to the development of a prototype product for initial commercialization, covered by an ABS licensing agreement.

41. The baseline work on identifying potential prototypes related to traditional knowledge resources was financed from 2009-2011 through the MOSTI E-Science fund totaling USD38,370 (included in the baseline costs mentioned for the first pilot project above). In the absence of GEF investment, it is unlikely that this baseline work would receive additional financial support from

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[16]Norini, H. Abd Latif M., Nagulendran K. & Lim H. F. (2011). 'Traditional knowledge on medicinal and aromatic plants as important culture and heritage of Orang Asli, Peninsular Malaysia', p. 390-399 in Jung Sung Chae (Editor). *Proceedings of the 12th International Joint World Cultural Tourism Conference*. October 7-9, Istanbul, Turkey.

[17] CEBLAW was appointed to implement the project

[18]Good Manufacturing Practice national certification

[19]High Performance Liquid Chromatography, Liquid Chromatography and Mass Spectrometer, Fourier Transform Infrared Spectroscopy, Nuclear Magnetic Resonance

[20]**Nutraceuticals** are products derived from food sources that provide extra health benefits, in addition to the basic nutritional value found in foods. Depending on the jurisdiction, products may claim to prevent chronic diseases, improve health, delay the aging process, increase life expectancy, or support the structure or function of the body. Source: Nutraceuticals/Functional Foods and Health Claims on Foods.

government cofinancing sources, and prospects of commercial investment are unclear at this time.

Pilot Project 3

42. The third pilot project aims to develop an ABS mechanism which includes access to genetic resources through to benefit sharing with ILCs. The ABS mechanism is to enable the sharing of benefits with local communities through creating a value chain leading to the development of products for the healthcare, personal care and cosmeceutical[21]industries from traditional knowledge associated with genetic resources in Sarawak. It also aims to promote benefit sharing with ethnic communities so that they are able to improve their livelihoods and preserve their traditional knowledge while promoting the sustainable use of biological resources for the State of Sarawak. This project will be coordinated and executed by the Sarawak Biodiversity Centre (SBC).

43. This pilot project builds on SBC's on-going research based on traditional knowledge documented through its Traditional Knowledge Documentation Programme. In Sarawak, SBC is tasked to "ensure that the traditional knowledge of how Sarawak's ethnic communities use biodiversity, is properly documented" under the SBC Ordinance (Amendment) 2003. There are 30 ethnic communities in Sarawak. Up to November 2012, 760 plants had been documented through consultation with indigenous peoples of 13 ethnic communities in 59 locations in Sarawak through SBC's Traditional Knowledge DocumentationProgramme, implemented through the TK JournalMethodology (Developed in collaboration with Bioversity International).[22]SBC has identified a plant called *Litsea cubeba* that produces essential oils. Chemical analyses to determine the composition of these essential oils and their antimicrobial activities were carried out and results show that its essential oils have significant antimicrobial activity. Various prototype products for personal care and household which are infused with the essential oil of *L.cubeba* have been developed. SBC has also applied for, and been granted the Geographical Indication (Sarawak Litsea) and Trademark (LitSara) for the essential oil derived. Currently, SBC is carrying out bulk extraction of Sarawak Litsea for further research and to develop prototype products. The Kampung Kiding community plays an important role in providing raw materials to SBC for bulk extractions. SBC also provides capacity building to the community to carry out steam distillation of the oil and propagation of the plant at the village. SBC is currently seeking collaboration with both local and foreign entrepreneurs for product manufacturing and commercialization. Under this Component, three communities namely the Bidayuh, the Lun Bawang and the Kelabit communities from Kampung Kiding, Long Semadoh Area (Long Telingan and Long Kerebangan) and Bario Area (Pa'Ukat and Pa'Lungan) will be involved.

44. There is also an ongoing SBC project in Sarawak on the Development of a Protocol for PIC under the TK Documentation Programme with the allocation of US$16,700.[23] ILCs will be surveyed at KampungKiding, Ba'Kelalan and KampungSemadang. It is scheduled to be

[21] **Cosmeceuticals** refers to the combination of cosmetics and pharmaceuticals. Cosmeceuticals are cosmetic products with biologically active ingredients purporting to have medical or drug-like benefits. Source: http://en.wikipedia.org/wiki/Cosmeceutical

[23] Prof Gurdial and P.F. Gan are the resource persons.

completed by the end of October 2013 and the output will feed into the implementation of this pilot project.

45. In addition to its Traditional Knowledge Documentation Programme, SBC has a bioprospecting R&D programme that focuses on making discoveries in biological resources that lead to the development of herbal therapies, nutraceuticals, cosmeceuticals for health-care and pharmaceutical drugs, *inter alia*. The R&D Programme is supported by seven well-equipped and specialized laboratories (extraction, microbiology, molecular biology, plant tissue culture, analytical chemistry and bioinformatics), staffed with trained scientists. The discoveries will consequently provide a pipeline of bio-products for the bio-industry to generate economic returns and revenues for the State.

46. In the absence of GEF investment, the TK documentation programme will continue, but the full range activities to develop an ABS mechanism which involve various ILCs and various locations in the State as planned under the pilot project will not be implemented. SBC's co-financing is budgeted to support its TK documentation programme and there is limited allocation to carry out the specific activities to develop an ABS mechanism for the State. These activities may be limited to one or two ILCs (out of 30 ILCs in Sarawak) in locations which are more accessible.

PART II: Strategy

PROJECT RATIONALE AND POLICY CONFORMITY

Fit with the GEF Focal Area Strategy and Strategic Programme

47. The project addresses the GEF 5 BD4 Focal Area objective – *Build capacity on access to genetic resources and benefit sharing*, contributing directly towards Outcome 4.1 *Legal and regulatory frameworks, and administrative procedures established that enable access to genetic resources and benefit sharing in accordance with the CBD provisions* and Output 4.1 *Access and benefit-sharing agreements (number) that recognize the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.* There is currently no GEF tracking tool for ABS frameworks, therefore this project uses its own indicators (see the strategic results framework). The project will establish the national legal and regulatory framework for ABS, build capacity for its implementation through a range of training, awareness and supportive information management and guidance outputs, and demonstrate best practice ABS processes recognizing the principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.

48. The project is consistent with the eligibility criteria and priorities of the GEF Trust Fund as it will support the Government of Malaysia to develop the national ABS framework and capacity, ensuring the PIC of the ILCs to associated TK is respected and recognised, promoting

bio-prospecting and drug discovery, ensuring fair and equitable sharing of benefits accrued, and transfer of technology. In addition, the project will facilitate private sector engagement and projects targeting investments in the conservation and sustainable use of genetic resources in-situ. Lessons from this project will be used to improve the capacities in Malaysia for handling issues relating to ABS, as well as to share this experience among other ASEAN countries, the majority of which do not have an ABS framework or operational ABS regime in place.

Rationale and summary of GEF Alternative

49. This Project aims to strengthen the conservation and sustainable use of biological resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing under CBD, including raising national capacity to the stage of implementation-readiness.

50. **In the baseline scenario**, the Government of Malaysia has identified the introduction of a national ABS framework consistent with the CBD's provisions as a priority and is investing significantly in efforts to support the national biotechnology industry and the documentation and protection of traditional knowledge. There are ongoing investments from Malaysian government bodies and the commercial sector in bio-prospecting. However, while these activities are consistent with the requirements of existing legislation, there remain weaknesses in the current legal and regulatory framework that do not require that PIC processes and ABS agreements involving the equitable sharing of benefits will fully implement the provisions of the CBD and the Nagoya Protocol. Even without this project, Malaysia would still work towards the implementation of its obligation under Article 15 of the CBD, but success in achieving the ABS objectives of the CBD would be limited. Therefore, ILCs in particular may not gain from bio-prospecting, although their land and traditional knowledge may be utilized. The Government of Malaysia therefore aims to ensure that all parties, including the federal and state governments and ILCs stand to benefit through the fair and equitable distribution of benefits from bio-prospecting. Efforts to date have been inadequate to remove the existing barriers to the introduction of an effective national ABS regime that will contribute towards biodiversity conservation and encourage sustainable use of biological resources, therefore the threat of ecosystem degradation remain, thus forgoing the opportunity of future bio-discovery options.

51. **In the GEF alternative:** The project complements baseline programmes and projects by supporting the development of the national ABS framework, addressing this at a whole country level and putting in place supporting capacity to enable its effective implementation. This will enable the rapid completion of national ABS legislation, preparation and approval of implementing regulations, identification of NCA and state CAs, and the processes and machinery required for full implementation of the ABS regime in line with CBD and Nagoya Protocol requirements. It will also break new ground in developing a *sui generis* framework focusing on the use of community protocols for traditional knowledge and genetic resources, demonstrated in Sabah. Considering the constitutional structure that the subject of forests and land are under the jurisdiction of the State governments, this project will enhance the communication and cooperation between these agencies through outputs identified below. Intensive awareness raising and capacity building efforts will ensure that all concerned stakeholders understand the principles behind the ABS regime, the requirements for its implementation, and the potential benefits that can be realized to different parties. The project

will also facilitate the reinvestment of benefits from ABS agreements back into biodiversity conservation and supporting ILCs through official mechanisms. The NCA, state CAs, checkpoint authorities and other stakeholders will be brought rapidly to implementation readiness, and through the pilot projects, the inclusion of appropriate PIC, MAT and ABS agreements in bio-prospecting and product development processes will be demonstrated, and community protocols on PIC of ILCs' traditional knowledge developed.The results and lessons learned from the project will also be shared andcontribute to global best practices on ABS besides helping other countries (in particular ASEAN countries) to develop and implement suitable ABS and conservation frameworks and ABS agreements. These in turn can also provide useful guidance to the ongoing regional and global processes related to ABS. As a result, the project will ensure that the country, states and ILCs all stand to gain from the further development of Malaysia's biotechnology industry, including its participation in international projects and foreign investment.

PROJECT GOAL, OBJECTIVE, OUTCOMES AND OUTPUTS/ACTIVITIES

52. **The project's goalis** *to contribute to the conservation and sustainable use of globally significant biodiversity in Malaysia.*The **Project Objective** is: *to strengthen the conservation and sustainable use of biological and genetic resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing under CBD.*

53. While the baseline activities are substantial, the aforementioned barriers inhibit the actual realization of the global objective of ensuring ABS and contribution from use of biological resources for biodiversity conservation and for meeting Aichi targets. This Project aims to remove the barriers mentioned above through three inter-related outcomes. To accomplish this, Government of Malaysia is requesting support from the GEF and UNDP to conserve its globally significant biodiversity.

54. The project objective will be achieved through the implementation of three inter-connected components. **Component 1** addresses the need for a national regulatory and institutional framework on ABS, including a financial mechanism to reinvest funds from ABS agreements back into biodiversity conservation. The operationalisation of this framework will be supported by the strengthening of national institutional and stakeholder capacity in **Component 2,** including measures for the documentation and protection of traditional knowledge; and through demonstration of pilot ABS agreements and PIC processes regarding ABS of indigenous and local communities' traditional knowledge in **Component 3**, which will provide experience and lessons learned to inform refinement of the framework and implementation processes including model PIC and benefit-sharing procedures. The three components will result in the following project outcomes:

55. **Outcome 1: An operational national regulatory and institutional framework on ABS.**This outcome aims to establish a national law and implementing regulations on ABS, and the institutional framework and supporting measures for their implementation. An institutionalized financial mechanism will be developed to receive proceeds from ABS

agreements for re-investment in biodiversity conservation. A *sui generis* framework will be developed and demonstrated for the protection of traditional knowledge focusing on PIC requirements in the ABS context, as well as an ethical code of conduct or guidelines for research on traditional knowledge and genetic resources and the establishment of a supportive institutional framework. Demonstration activities in component 3 will inform development of implementation procedures through piloting and documenting all stages of the process of bioprospecting through to early commercialization of products, testing PIC and benefit sharing processes, and developing guidelines and model ABS agreements. This implementation framework for the national ABS law will lead towards readiness for accession to the Nagoya Protocol through the completion of consultation procedures with all states and the drafting of a paper for Cabinet approval.

56. **Outcome 2: Strengthened national institutional and stakeholder capacity for implementation of the national ABS framework.**This outcome aims primarily to improve the capacities of the state Competent Authorities (CA), the National Competent Authority (NCA) and related agencies regarding the implementation of the ABS law and their obligations under the CBD, Nagoya Protocol and other related international treaties. Specifically, these agencies need to be trained to understand the ABS rules and procedures, including granting of permits, assessment of access applications, core principles of PIC and MAT and their application, and rights and roles of ILCs; understand and keep abreast of negotiations at WIPO and FAO to ensure a coordinated national approach; negotiate ABS agreements; and monitor and track access. These will ensure better understanding of national and international provisions of ABS, and enhance the implementation of the proposed national ABS law at all levels. The significant capacity building activities incorporated in the pilot demonstration activities in Component 3 will contribute towards this outcome, including training and awareness raising for the pilot communities, participatory monitoring of the progress and implementation of pilot activities in Peninsular Malaysia by a Technical Committee including representatives from NRE, JAKOA, Orang Asli *Tok Batins* (community heads) and the TK research team, and making results available to national, regional and global audiences as case studies and guidelines.

57. **Outcome 3: Best practice ABS processes (three) are demonstrated recognizing the principles of biodiversity conservation, Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.**This outcome focuses on demonstrating the development of pilot ABS agreements, with attention to the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing ofbenefits. It consists of three pilot projects, distributed across three states: Kedah and Perak in Peninsular Malaysia, and Sarawak in East Malaysia. The emphasis of each demonstration project is slightly different, collectively covering all stages in the development and initial commercialization of prototype products based on bio-prospecting and application of the traditional knowledge of indigenous and local communities, and contributing towards the understanding of associated issues such as the development of value chainsand the participation of ILCs in the collection, documentation, preparation and sustainable production and conservation of biological resources. The pilot projects will also seek to demonstrate the sharing of both monetary and non-monetary benefits with the indigenous and local communities.

58. In addition, implementation of the project is supported by monitoring and evaluation inputs in order to achieve effective project management based on results-based management. This will include assessment of awareness levels on specific subjects in order to substantiate related SRF indicators.

59. The project's **Stakeholder Involvement Plan** (see **Section IVPart IV**) provides details of stakeholder organizations and their roles in project implementation, including mechanisms for participation. This includes federal government agencies concerned with the governance of ABS implementation (NRE and Federal Economic Planning Unit) and other bodies concerned with biotechnology development (including the MOSTI, MOA, MDTCC, and others); State Economic Planning Units and other responsible authorities for ABS implementation at state level (such as SaBC and SBC); ILC representatives and social and environmental NGOs involved in ABS issues; research institutions involved in bio-prospecting and related research (eg FRIM, universities); technical experts on biodiversity law (CEBLAW); and private sector organizations and businesses involved in developing biotechnology products.

60. Activities under the three outcomes will be focused at three levels of intervention: (i) the national (federal) level, in order to establish the national regulatory and institutional framework, and develop national capacity for governance of the framework and technical support measures for its implementation; (ii) state level, in order to establish state competent authorities and capacity for ABS implementation including checkpoints and permitting arrangements; and (iii) local level, to demonstrate pilot ABS activitiesin the field in collaboration with ILCs and other stakeholders, and to raise awareness and understanding of ABS processes and their regulatory framework.

Outcome 1: An operational national regulatory and institutional framework on ABS. *(Total cost: 1,782,900 US$; GEF 377,900 US$; Co-financing 1,405,000 US$)*

61. This outcome aims to establish a national law and implementing regulations on ABS, together with the associated institutional framework and supporting measures needed to enable their implementation. It will also include an institutionalized financial mechanism that receives proceeds from ABS agreements and re-invests them in biodiversity conservation; development of a sui generis framework for the protection of traditional knowledge focusing on PIC requirements in the ABS context, an ethical code of conduct or guidelines for research on traditional knowledge and genetic resources and the establishment of a supportive institutional framework. The development of the implementation framework on the national ABS law will lead towards readiness for the accession to the Nagoya Protocol through the completion of consultation procedures with all states and the drafting of a paper for Cabinet approval. The outputs under this outcome are as follows:

1.1 National law and implementing regulations on ABS developed with stakeholderparticipation.

62. The development of the national law and regulations will be conducted through a transparent and consultative process ensuring full participation of all relevant stakeholders

including the indigenous and local communities and NGOs. The implementation of law is closely linked to the establishment of the institutional framework at both federal and state levels considering the constitutional structure of Malaysia's governmental system. The National Competent Authority, possibly the National Biodiversity Centre, will be established at Federal level. The Competent Authorities will be established in all 13 States to handle permit applications. These authorities will coordinate with checkpoints (hosted by technical agencies such as MyIPO, MOSTI, universities and MOH (Drug Control Authority)) to be established in monitoring the access and checking compliance by users with the proposed national ABS law, the CBD and the Nagoya Protocol.

63. This output will include the following activities, which will be conducted by NRE staff (co-financed) with technical support from CEBLAW. CEBLAW will attend all consultation meetings with State and stakeholders, and brief top management of government including Ministers and the Members of Parliament. CEBLAW will also fine-tune the draft Bill and Regulations. All these will be done with staff from NRE. A gap analysis on the implementation of the ABS framework will also be conducted during project inception to confirm the scope of the project intervention.

1. Consultations with States and relevant agencies to finalize the list of CAs;
2. Consultations with all stakeholders on the draft regulations: federal agencies, State Governments, ILCs, research institutes, public and private educational institutes, NGOs and industries;
3. Fine-tuning the draft national ABS Bill and draft regulation to take into account the concerns expressed by various stakeholders;
4. Briefing and inputs from NRE's top management including the Minister from time to time on the status of the draft national ABS Bill;
5. Legal drafting to ensure that the interests of all parties are met while keeping the objective of the law intact;
6. Briefing the Members of Parliament on the draft Bill.

1.2 Institutional framework including national and state competent authorities and supporting measures established to enable implementation of the national ABS law at federal and state levels.

64. The said authorities will further be assisted by the supporting measures in handling their daily affairs, among others, the guidelines on rules and procedures for the regulators, guidelines on roles and responsibilities of NCA and CA, streamlined administrative systems such as permits for access, application forms and fees.

65. This output will include the following activities, which will be coordinated by NRE (co-financed) with technical support from CEBLAW.

1 Establishment of National Competent Authority (NCA) (possibly the National Biodiversity Centre) at Federal level and identification of Competent Authorities (CAs) at State level;

2 Development of guidelines on rules and procedures for the regulators;

3 Development of guidelines on roles and responsibilities of NCA and CAs;
4 Streamline and clarify the administrative systems such as permits for access, application forms, fees, etc.;
5 Consultations and establishment of checkpoints. Possible checkpoints for Malaysia will include MyIPO, MOSTI (public research grants), universities (research grant administration), and MOH (Drug Control Authority for pharmaceutical and traditional products approval).

1.3 Financial and funding mechanisms established at federal and state levels to receive and reinvest proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components.

66. A dedicated financial mechanism will be established to channel monetary benefits arising from ABS agreements to be reinvested in biodiversity conservation, as well as when relevant to the indigenous and local communities. Without this mechanism, proceeds from ABS agreements will go to a government consolidated fund where they may be used for various purposes and not necessarily channeled for biodiversity conservation. The project will support expert inputs for the design and establishment of this financial mechanism, taking into account the specific Malaysian federal and state legal and administrative requirements.

67. The NPD and PM will frame this work and liaise with the Ministry of Finance and Economic Planning Unit. The technical design of the financial mechanism will be undertaken by the National Consultant on Government Financing Mechanisms to design the financial mechanism. This will include the following activities:

1. Implementation of a feasibility study, which will review how such ABS financial and funding mechanisms have been designed in comparable situations in other countries including the proposed Conservation Trust Fund in Malaysia which was developed by EPU with support from DANIDA, the legal, administrative and socio-economic context for introducing such a system in Malaysia, the legal and institutional measures required, and a comparative review of the advantages and constraints of different options for the introduction of such a mechanism in Malaysia for review by NRE and other key stakeholders.
2. Detailed design of the selected financial mechanism(s) to be established at state and federal levels for review by NRE and other key stakeholders.
3. Prepare a paper on the proposed financial mechanism(s) for NRE to present and seek approval by the relevant decision-making body for the establishment of such a mechanism(s).

1.4 Supportive institutional framework for *sui generis* systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources in Sabah

68. A pilot project will demonstrate the use of community protocols to develop *sui generis*[24] approaches to ABS for protection of traditional knowledge within the broader legal landscape in Sabah, coordinated and executed by SaBC in collaboration with NGO Natural Justice and social enterprise Borneo Conservancy Initiative. The project will take place in Ulu Padas (Sipitang District) in south-western Sabah. The ethnic Lundayeh community, with a combined population of approximately 500 people, resides in the villages of Long Pasia and Long Mio at the mouths of the Pasia and Mio rivers, respectively, which are important tributaries of the Padas River. Ulu Padas is well-known for its high level of biodiversity and endemism and was identified in the 1992 Sabah Conservation Strategy as a priority for inclusion in the state protected area network. The project design emerged from 3 years of discussions with civil society organisations, state government agencies, researchers, and communities from around Sabah, and through a major review of laws and policies relating to indigenous peoples and community conserved territories and areas, and builds on the experiences and responds to key recommendations from four community-based biodiversity projects in Sabah.

69. This pilot relates to four-interlinked components to develop a framework for an integrated and community-based approach to ABS in Sabah, with the outputs including the development of a community protocol as the basis for clarifying PIC processes and MAT with external actors; guidelines or a code for ethical conduct of research on traditional knowledge and genetic resources (see **Output 1.6**); and asupportive institutional framework for *sui generis* systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources. The emphasis on community-based development of community protocols is fully in line with Article 12 of the Nagoya Protocol which requires Parties to the Protocol, among others, to support the development by ILCs, community protocols in relation to access to traditional knowledge and the fair and equitable sharing of benefits.

70. A series of training, communication education and public awareness activities and products will increase the capacity and confidence among communities to provide greater clarity to external stakeholders about their core values, challenges, priorities, and plans relating to the conservation and customary sustainable uses of biodiversity and the protection and promotion of their traditional knowledge, greater awareness of how traditional knowledge can be accessed and used, how they can retain control over the process and considerations such as ownership of knowledge and sharing of benefits arising from its utilisation. Special focus will be given to women, considering their essential role in developing and using community protocols. The experiences and lessons learned and the output of the project will be disseminated to other communities, other Asian countries, and internationally including through providing relevant input to meetings involving Parties to the CBD.

1.5 Community protocols constitute the basis for clarifying PIC and MAT requirements between users and providers of traditional knowledge and biological resources.

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[24] Generally speaking, protection for intellectual property is extended to "matter" depending upon its "characteristics". The main types of intellectual property law (copyrights, patents, and trademarks) define "characteristics". Any matter that meets such criteria is extended protection. However, *sui generis* statutes exist in many countries that extend intellectual property protection to matter that does not meet characteristic definitions: mask works, ship hull designs, fashion designs in France, databases, or plant varieties require *sui generis* statutes because of their unique characteristics. Source: http://en.wikipedia.org/wiki/Sui_generis

71. The development of a *sui generis* framework in **Output 1.4** will focus on the use of community protocols as the basis for clarifying PIC and MAT requirements between users and providers of traditional knowledge and genetic resources. The pilot project aims to raise awareness and build capacity among Indigenous Lundayeh communities in Ulu Padas about customary sustainable uses of biodiversity, the protection of traditional knowledge, and ABS and include a range of activities to support the Indigenous Lundayeh communities in the development and use of a community protocol as the basis when engaging with external actors.

72. The resulting community protocols for Indigenous Lundayeh communities in Sabah would then be reviewed, together with other community protocols developed in the States of Sarawak, Perak, Pahang and Negeri Sembilan (from the baseline projects), through consultation with stakeholders at national and state levels and in particular the indigenous and local communities' representatives. The outcome will be used to inform the development of a model community protocol coordinated by CEBLAW, which would be printed in English and Bahasa Malaysia and native languages as needed, to facilitate other communities in developing their own community protocols. This document will also be made available online.

1.6 Ethical code of conduct or guidelines for research on traditional knowledge and genetic resources

73. One component of the above pilot project in **Output 1.4** aims to improve communication and constructive collaboration between communities, supporting organisations, researchers, and government agencies through facilitated exchanges and dialogues. This will result in the development of Sabah-specific guidelines or a code for ethical conduct of research on traditional knowledge and genetic resources in Sabah (in accordance with the Tkarihwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities).

74. The resulting guidelines / code for ethical conduct for research in Sabah would then be reviewed through consultation with stakeholders at national level and for other Malaysian states, and used to develop a set of national guidelines / code of ethical conduct which would be printed in English and Bahasa Malaysia, and also made available online. This would be in association with relevant NGOs.

1.7 Consultation completed with all states and paper on accession to the Nagoya Protocol developed for Cabinet's approval.

75. The development of the national ABS law and implementing regulations, together with institutional framework and other supporting measures will lead towards readiness for accession to the Nagoya Protocol through the completion of consultation procedures with all states and the drafting of a paper for Cabinet approval, led by NRE.[25] This is in line with the current general

[25] To be a party to NP, the federal government will require the concurrence of all 13 state governments. This exercise will take some time and may extend beyond the life of this project, and there is a consensus agreed for the nation to have domestic law on ABS before acceding the Nagoya Protocol. During the GEF constituency meeting held in Cambodia in March 2013, the GEF representative informed the meeting that it is not a prerequisite to be a party to NP at the end of a project which aims to build capacity and develop national ABS frameworks.

policy championed by the AGC to have the necessary legislation in place before becoming a party to a treaty[26].

Outcome 2: Strengthened national institutional and stakeholder capacity for implementation of the national ABS framework.

(Total cost: 1,670,600 US$; GEF 470,600 US$; Co-financing 1,200,000 US$)

76. This outcome aims primarily to improve the capacities of the state Competent Authorities (CA), the National Competent Authority (NCA), possibly a National Biodiversity Centre, and related agencies regarding the implementation of the ABS law and their obligations under the CBD and other related international treaties. Specifically, the NCA, CAs and related agencies need to be trained, among others, to understand the ABS rules and procedures, including granting of permits, assessment of access applications, core principles of PIC and MAT and their application, and rights and roles of ILCs; interpret ABS provisions of national law, the Nagoya Protocol, the CBD and other related international agreements such as ITPGRFA; understand and keep abreast of negotiations at WIPO and FAO to ensure that all authorities dealing with ABS will have a common and coordinated national approach; and negotiate ABS agreements. These developments will ensure better understanding of national and international provisions of ABS, and enhance the implementation of the proposed national ABS law at all levels. Decision making on ABS issues at national and state levels and within relevant agencies will be informed and strengthened through the use of appropriate tools, guidelines, frameworks and guides. As a consequence, access to biological resources will be informed and enhanced under the provisions of the proposed national ABS law, including equitable benefit sharing provisions. In terms of monitoring and tracking, the NCA, CAs and other institutions (potential checkpoints such as MOH (Drug Control Authority), MOSTI, MyIPO, etc.) require training to ensure compliance by users of the proposed national ABS law and ABS agreements.

77. The outputs under this outcome are as follows:

2.1 Improved capacities of the state Competent Authorities (CA), National Competent Authority (NCA) and related agencies through training of 100 staff on processing access applications, negotiating ABS agreements and monitoring and tracking to ensure compliance.

78. The following activities will be implemented. The first activity will be provided by an International Consultant on Monitoring and Tracking Systems for Bioprospecting. Activities 2 and 3 would be led NRE with technical assistance from CEBLAW, while the training activities (4-7 inclusive) would be implemented by a contracted training provider, which would also develop the training materials in **Output 2.2** below, with NRE/project management guiding the selection of specialist inputs on technical ABS subjects including CEBLAW, FRIM and possibly SBC and SaBC staffs.

[26]This is the effect of lessons learned from participation in other international treaties, in particular, the CEDAW Convention whereby Malaysia became a party without first having domestic law to cater to its obligations under CEDAW and has subsequently been facing international pressure to achieve this, and in relation to its Reservations to certain provisions of CEDAW.

1. Development of monitoring and tracking measures in Patent System for genetic resources and associated traditional knowledge that have been accessed with or without access permits for research and development, and have been moved within or outside Malaysia(this is important to prevent biopiracy and ensure that benefit sharing is accrued as appropriate). The ABS Patent Index (ABSPAT) could be explored as a potential monitoring tool. This will include the associated software installation and training inputs;
2. Guidelines on MAT and benefit sharing will be developed to assist regulators in negotiating ABS agreements and to understand and apply requirements for the fair and equitable sharing of benefits. These will be based on a review of international best practices in implementation of fair and equitable benefit sharing commitment by examining existing ABS agreements, laws and other practices;
3. Development of model ABS agreements, taking into account the results of the pilot activities in **Outcome 3**;
4. 3 training courses on: ABS rules and procedures, including granting of permits; assessment of applications,etc; granting of PIC by ILCs; MAT and ABS agreements;
5. 3 training courses (legal) on interpreting ABS provisions under the national ABS Act (following its entry into law); the Nagoya Protocol, the CBD and their interface with other international instruments and fora;
6. 3 training courses to improve negotiating skills especially among resource and TK providers;
7. 3 training courses on monitoring of ABS agreements and access activities, national coordination mechanism between NCA, CAs, MOH (Drug Control Authority), MOSTI, MyIPO, etc. (potential checkpoints).

79. The products developed and lessons learned from this Component will be used to help achieve Component 3 of the project besides contributing to regional and international best practice examples and models for further developing ABS provisions.

2.2 Training programme and modules on bio-prospecting and research procedures developed and made available to federal and state research institutions.

80. This output will support the development of a training programme on bio-prospecting and research procedures, including course modules that will support the delivery of the training courses indicated in **Output 2.1**, and provide the basis for continued capacity development after the project lifetime in order to sustain and further develop national capacity for implementation of national and international ABS procedures.

81. It will include the following activities, which will be undertaken by a contracted training provider[27], together with CEBLAW, which would also coordinate the delivery of the training courses indicated in **Output 2.1** above, with NRE/project management guiding the selection of specialist inputs on technical ABS subjects including CEBLAW, FRIM and possibly SBC and SaBC staff. The selection of the training provider should take into account its capacity and

[27] Potential training providers include ILKAP under the AG's Chambers and EIMAS under NRE

motivation to provide training services in the long term, with appropriate institutional arrangements in place with NRE and any other concerned agencies.

1. Establishment of institutional basis and contractual arrangements for training provision, including potential long term involvement;
2. Development of training programme and modules , including:
    - Interpreting ABS provisions under the proposed Act; the NP, the CBD and their interface with other international instruments and fora;
    - negotiating skills and strategies
    - PIC, MAT and ABS agreements
    - National coordination mechanism between NCA, CAs, MOH, MOSTI, MyIPO (potential checkpoints)
3. Training of trainers to conduct training courses under **Outcome 2.1.**

2.3 Mechanisms institutionalized to facilitate access to information and support compliance under the national law and the NP.

82. Mechanisms to facilitate access to information will be strengthened for national and international users, including the development of an information gateway in the form of a dedicated section on ABS on the national clearing house mechanism website hosted by NRE.

83. In addition, mechanisms to support compliance (including national level databases on traditional knowledge, access permits and ABS agreements) will also be put in place to assist the regulators. This Output will also support the further development and coordination of existing registries of traditional knowledge of genetic and biological resources, which have been initiated by FRIM (for Orang Asli TK in Peninsular Malaysia), SaBC (for indigenous TK in Sabah) and SBC (for indigenous TK in Sarawak). This is to ensure that information to be shared with the NCA, as required by the proposed national ABS law, will be coordinated by the ABS-CHM (currently hosted by FRIM).

84. The following activities would be undertaken, with technical support from a national consultant on database and website design under NRE/FRIM supervision (note that FRIM hosts the CHM website). The third activity would be implemented by the respective TK database host agencies for Peninsular Malaysia, Sabah and Sarawak with consultations on coordination facilitated by NRE.

1. Strengthen the existing Malaysian Biological Diversity Clearing House Mechanism to include a dedicated section on ABS;
2. Development of national databases on access permits and ABS agreements (so that the NCA has access to updated online information on access permits given or denied by the state CAs);
3. Strengthen the development and coordination of confidential and non-confidential registries of traditional knowledge of genetic and biological resources in Malaysia. The above database could be used as a Traditional Knowledge Digital Library (MyTKDL) to assist the patent office in verifying patent applications.

2.4 Campaign to raise awareness on the ABS law, CBD and Nagoya Protocol targeting researchers, local communities, and relevant industry.

85. Stakeholders such as the ILCs, researchers and relevant industries will be specifically targeted by an awareness raising campaign, on the proposed national ABS law and the application procedures and ABS issues. Tools, methods, and outreach materials will be developed to raise awareness and knowledge of national law and CBD and Nagoya Protocol provisions related to ABS and traditional knowledge among stakeholders, to prepare the way for implementation. In particular, the development of a "Users' Guide" of rules and procedures for users and providerswill further clarify the access requirements. ILCs will also be trained for safeguarding their traditional knowledge.

86. The following activities will be undertaken by a contracted organization such as an environmental or community-based NGO with appropriate experience under NRE supervision, with technical support from CEBLAW (which would conduct activity 3) and FRIM (activity 4) and other agencies as necessary:

1. Development of awareness raising material on ABS provisions under the proposed Act, relevant tools, methods and outreach materials to enhance understanding of ABS issues and responsibilities of various stakeholders. These materials will be in English and/or national language and if possible and relevant, local languages
2. Awareness raising activities targeting the researchers and industries;public and NGOs; and ILCs on ABS issues and national obligations under the proposed Act
3. Development of the Users' guide of rules and procedures for users and providers of biological resources
4. Training of ILCs in Peninsular States, Sabah and Sarawak, with support from FRIM, SaBC and SBC respectively for safeguarding their traditional knowledge, prevailing legal frameworks, implementation procedures and ABS issues

2.5 Knowledge, attitudes and practices (KAP) assessment surveys targeting specific groups (e.g., researchers, local communities, and relevant industry) that may use or benefit from ABS transactions are carried out to assess enhanced awareness about national ABS law, the CBD and Nagoya Protocol.

87. As part of the project's monitoring and evaluation system, knowledge, attitudes and practices (KAP) assessment surveys will be conducted targeting specific groups (ILCs, researchers and relevant industries) that may use or benefit from ABS transactions to determine the project's impact on awareness levels. These would include baseline surveys at the start-up of the awareness raising activities for specific target groups, and repeat surveys following the same methodologies at project completion. This work will be contracted to a service provider, with requirements to liaise closely with the project's implementing partners in the design and implementation of activities. The methodological approach is outlined in **Annex 3**.

Outcome 3: Best practice ABS processes (three) are demonstrated recognizing the principles of biodiversity conservation, Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.

(Total cost: 3,278,500 US$; GEF 950,500 US$; Co-financing 2,328,000 US$)

88. This outcome focuses on demonstrating the development of pilot ABS agreements, with attention to the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits. It consists of three pilot projects, distributed across three states: Kedah and Perak in Peninsular Malaysia, and Sarawak in East Malaysia. The emphasis of each demonstration project is slightly different, collectively covering all stages in the development and initial commercialization of prototype products based on bio-prospecting and application of the traditional knowledge of indigenous and local communities, and contributing towards the understanding of associated issues such as the development of value chains and the participation of ILCs in the collection, documentation, preparation and sustainable production and conservation of biological resources. The pilot projects will seek to demonstrate the sharing of monetary and non-monetary benefits with the indigenous and local communities, and showcase how benefits can be channelled for the purpose of conservation. The results of the pilot projects would be documented model processes for PICs and benefit sharing related to ABS agreements, which would be made available as case studies and guidelines to national, regional and global audiences, informing Outcome 1. The pilot projects would also result in significant capacity building and awareness raising at community and state levels, contributing towards Outcome 2.

89. The outputs under this outcome are as follows:

3.1 Demonstration project on the documentation of traditional knowledge associated with biological resources of Kensiu (Kedah) and Kintak (Perak) Orang Asli for the development of one prototype product for potential commercialization.

90. The first pilot project concerns the documentation of traditional knowledge associated with biological resources of the Kensiu (Kedah state) and Kintak (Perak state) Orang Asli for the development of one prototype product for potential commercialization, coordinated and executed by FRIM. This will complete national coverage of Orang Asli traditional knowledge resources (see baseline), contributing towards a national database under development by FRIM and the preservation of such knowledge. Planned activities are as follows.

Socio-economic Component

91. For the project to be undertaken, two sub-ethnic groups of Orang Asli will be selected. Sub-ethnic group also is referred to as a community. The selection of the two sub-ethnic groups will be guided by the Department of Orang Asli Development (JAKOA) and will be based on accessibility to the respective locality (*kampong* or village) and the willingness of the sub-ethnic groups to participate in the said project. In fact, before the Rapid Rural Appraisal (RRA) is conducted, a discussion must be held with the headman or *TokBatin* to seek his consent for the sub-ethnic group to be involved in the project.

92. The RRA will be accompanied by awareness activities, asalthough local leaders may have some understanding oftraditional knowledge (TK) issues, members of the local community

in general usually do not fully understand the potential economic value of their TK. Many will not be sure of the actual benefits that can be derived from participating in this project.Therefore, by organizing an awareness workshop, the community will be informed of the objectives of the project and its implications. The participants (comprising men, women, and youths) will be briefed on what is TK, TK erosion and loss, the background of Convention on Biological Diversity (CBD), Malaysia's National Policy on Biological Diversity (1998), and the current project and its importance. The TK awareness workshop will serveas a platform for exchanging experiences relating to TK issues in Malaysia. In particular, issues regarding prior informed consent (PIC), potential economic benefits of the project, and fair and equitable sharing of benefits will be raised and discussed.

93. An important aspect of CBD's achieving fair and equitable sharing of benefits is to obtain PIC from the local community. Three types of PICs will be obtained from the local community. In the first PIC, the household head or spouse will be informed of the objectives of the project and, if amenable, will then sign the PIC letter. With the signing of PIC1, the TK project will be considered officially accepted and will proceed with the various planned activities. Those who are willing to attend the training workshop on specimen collection (phase 1) and herbarium specimen preparation (phase 2) will be required to sign PIC2, which is to be obtained from individuals. If the specimens are found to have potential for commercialisation later on, PIC3 will be obtained from householders granting their consent for FRIM to develop prototype products.

94. To gather information on the sub-ethnic's background and knowledge and use of TK, a socio-economic survey will be conducted at the household level. Wherever possible, enumerators of the indigenous community will be trained to assist in the socio-economic survey. The survey will enhance understanding of the potential economic values of medicinal plants. The information gathered will be used in preparing documentation training later on.

Preparation of Herbarium Specimen and Identification of Plant Species

95. Following the completion of the socio-economic survey, another two capacity-building workshops (phase 1 & phase 2) will be conducted. These workshops are designed to train between 20 and 25 villagers (comprising knowledge holders and youths of both genders) to document their knowledge on medicinal and aromatic plants. PIC2 will be obtained from participants to ensure their willingness and commitment to share information when collecting and documenting the plant species. Permission to collect the plants will be obtained from the State/District Forestry Department through a forest permit.

96. In workshop Phase 1, the botanists will give lectures on the correct techniques to collect and document the plant samples and to prepare herbarium specimens. The participants will then be involved in a hands-on session to collect and document the plant samples.

97. Herbarium specimens will be prepared in phase 2 of the workshop. The participants will be involved in pressing and mounting the plant samples that are assigned to them with help from the TK team facilitators. Also during workshop phase 2, selected plant samples with potential therapeutic or cosmeceutical value will be collected for screening purposes. Chemists and biologists will conduct the screening activities. Simultaneously, botanists will identify the plant samples collected. Unlike the preparation of other herbarium plant specimens, the sub-ethnic group of Orang Asli responsible for the collection and preparation of the said specimens will be recorded as the collectors. This will be done in appreciation of their effort.

Evaluation of Therapeutic Potential

98. Evaluation of therapeutic potential or bioprospecting is the exploration, extraction, and screening of biological diversity and indigenous knowledge for commercially valuable genetic and biochemical resources. With the aim of exploring the potential of selected plant species as therapeutic, nutraceutical, and/or cosmeceutical agents besides validating their traditional claims, the project will focus on six therapeutic areas, namely, anti-microbial, anti-inflammatory, anti-oxidant, anti-diabetic, anti-cholesterol, and/or biopesticidal. In addition, the project will evaluate the safety of plant extracts through cytotoxicity studies.

99. The project will also conduct phytochemical screening. This involves the detection of important phytochemical constituents such as alkaloids, saponins, flavonoids, tannins, triterpenes, and steroids. Besides these phytochemicals, essential oils of the aromatic plants will also be analysed. Identification of chemical or bioactive compounds from medicinal plants is essential for the scientific validation of their uses and in the preparation of standardized herbal products as a prerequisite to the discovery of novel therapeutic, nutraceutical, and cosmeceutical uses.

100. Local community members who participated in capacity-building workshops will be involved in the collection and preparation of selected plant species for bioprospecting. The plant parts, i.e., leaf, stem, bark, and fruit, will be collected and cut into small pieces before being transferred to FRIM for further processing, i.e., drying, grinding, extracting, and phytochemical and bioactivity screening.

101. Outputs of the activity will be:

i) Plant extracts added to the FRIM extract library
ii) Essential oils added to the FRIM essential-oil library
iii) Bioactivity and phytochemical profiles of the plant species developed
iv) Traditional claims validated scientifically

102. Candidates for further research and product development will be identified on the basis of their bioactivity and phytochemical profiles.

Development of Product Prototype

103. Plant species that provide multiple bioactivities will be selected as potential therapeutic, nutraceutical, and/or cosmeceutical agents. PIC3 will be obtained and further research will be carried out to identify the active ingredients for product development. This will involve:

- Bioassay guided isolation
- Fingerprinting development for quality control from raw material to prototype product(s)
- Optimization of extraction procedure
- Structural elucidation and characterization of active compound(s)

104. Once the active ingredient is identified, a prototype product will be developed. Efficacy and safety of the prototype product also will be evaluated. Successful product prototype(s) will be licensed to a private company for initial commercialisation.

105. The outputs of this stage will be:

i) Extraction protocol
ii) Active ingredient (in the form of standardised extract, fraction, or compound)
iii) Prototype product (nutraceutical or cosmeceutical)
iv) Licensing agreement

Technical Committee on MoU between FRIM and JAKOA

106. A Technical Committee is set up to monitor the progress and implementation of activities of the existing project on "Documentation of traditional knowledge on medicinal and aromatic plants used by Orang Asli, Peninsular Malaysia." Members of the Technical Committee include representatives from the Ministry of Natural Resources and Environment, JAKOA, 11 *Tok Batins*, and the TK research team. Decisions of the Technical Committee will be based on consensus.

107. With another two sub-ethnic groups of Orang Asli to be covered under the GEF project, it is recommended that the *Tok Batins* from those two sub-ethnic groups also sit on the Technical Committee. This is to ensure that they are in the mainstream together with other *Tok Batins*, as decisions made will definitely have implications for their respective communities.

108. During the course of the pilot project, FRIM will promote conservation efforts to ensure the security of the biological resources concerned, through *in-situ* and/or *ex-situ* conservation measures as appropriate

3.2 Demonstration project on the development of a pilot ABS agreement with Semai Orang Asli (Perak) for the development of one prototype nutraceutical/healthcare product for initial commercialization.

109. The second pilot project concerns the development of a pilot ABS agreement with Semai Orang Asli (Perak state) for the development of a prototype nutraceutical[28]/healthcare product based on a Fabaceae species for initial commercialization, also coordinated and executed by FRIM. This builds on baseline work by FRIM with this community, which has identified several potential prototypes based on their traditional knowledge, supported by two PICs. This pilot will establish a third PIC, forest permit and collaborative R&D agreement for the collection, validation and preparation of one species of Fabaceae for the development of the nutraceutical/healthcare product, followed by laboratory analysis procedures leading to the development of a prototype product for initial commercialization, covered by an ABS licensing agreement. As for the first pilot project, the overall process will be documented with particular attention to the related agreements, and the results made available. The same Technical Committee as in Pilot Project 1 will monitor the progress and implementation of activities.

110. The activities planned under this pilot are summarized in the following table:

[28] **Nutraceuticals** are products derived from food sources that provide extra health benefits, in addition to the basic nutritional value found in foods. Depending on the jurisdiction, products may claim to prevent chronic diseases, improve health, delay the aging process, increase life expectancy, or support the structure or function of the body. Source: Nutraceuticals/Functional Foods and Health Claims on Foods.

Year	Activities	Agreement
Y1	1) Procurement of PIC 3 2) Collection, validation and preparation of one species 3) Extraction and fractionation of sample 4) Bioassay guided isolation 5) Safety evaluation towards extract/active fraction based on therapeutic values calculations.	• PIC 3 • Forest permit • Collaborative R&D agreement with owner of the resources (state / ILC)
Y2	1) Fingerprinting development for quality control from raw material to prototype product(s) 2) Optimization of extraction procedure 3) Formulations of active ingredients towards 1 prototype product development	
Y3	1) Structural elucidation & characterization of active compound(s) 2) Efficacy evaluation of the prototype product	• Licensing agreement

111. At this stage, details for the commercialization stage of this pilot project are not available.

112. During the course of the pilot project, FRIM will promote conservation efforts to ensure the security of the biological resources concerned, through *in-situ* and/or *ex-situ* conservation measures as appropriate

3.3 Demonstration project on the utilization of genetic resources associated with TK for the development of health and personal care products in Sarawak.

113. The third pilot project aims to demonstrate an ABS mechanism through creating a value chain leading to the development of products for the healthcare, personal care and cosmeceutical[29]industries from traditional knowledge associated with genetic resources in Sarawak. It also aims to promote benefit sharing with ethnic communities so that they are able to improve their livelihoods and preserve their traditional knowledge while promoting the sustainable use of biological resources for the State of Sarawak. This project will be coordinated and executed by the Sarawak Biodiversity Centre (SBC), and builds on SBC's on-going research based on traditional knowledge documented through its Traditional Knowledge Documentation Programme (see baseline).

114. This pilot project will contribute to the achievement of the third objective of the proposed GEF project in the following ways:

[29]**Cosmeceuticals** refers to the combination of cosmetics and pharmaceuticals. Cosmeceuticals are cosmetic products with biologically active ingredients purporting to have medical or drug-like benefits. Source: http://en.wikipedia.org/wiki/Cosmeceutical

a) By documenting good practice processes in creating a value chain from community's traditional knowledge to product development
b) By ensuring that ABS guidelines and agreement between SBC, ethnic communities and the private sector are established for Sarawak
c) By disseminating good practices on ABS in Sarawak within Malaysia and to other countries

115. This pilot project is divided into the following components:

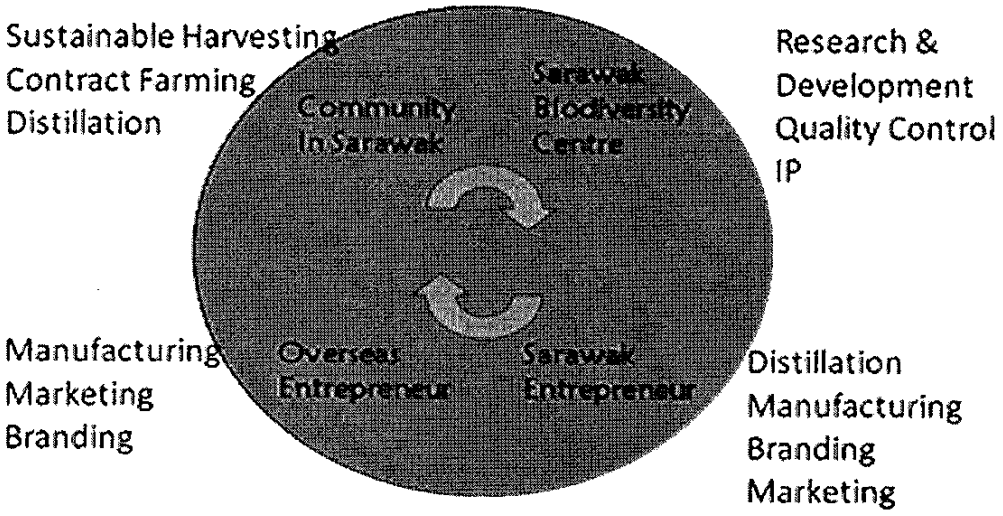
Component A
Developing a value chain for healthcare, personal care and cosmeceutical products between communities, SBC and other government agencies and industries.

116. Through the Sarawak Biodiversity Centre's (SBC) research, new uses have been identified from plants resources which were collected and documented under the Centre's Traditional Knowledge Documentation Programme. Among the plants documented were those that produced essential oils. Chemical analyses to determine the composition of these essential oils and their antimicrobial activities were carried out. Results show that these essential oils could potentially be developed into personal and health care products.

117. One such example of a plant which has been identified for new use through SBC's research is *Litsea cubeba*. Essential oil from the fruits and leaves of *L.cubeba* has shown significant antimicrobial activity. Various prototype products for personal care and household which are infused with the essential oil of *L.cubeba* have been developed.

118. Because of its uniqueness, SBC has applied for, and been granted the Geographical Indication (Sarawak Litsea) and Trademark (LitSara) for the essential oil derived. Currently, SBC is carrying out bulk extraction of Sarawak Litsea for further research and to develop prototype products. The Kampung Kiding community plays an important role in providing raw materials to SBC for bulk extractions. SBC also provides capacity building to the community to carry out steam distillation of the oil and propagation of the plant at the village. With empowerment, the community can be the provider of either raw materials in terms of sustainable production of plant resources and also essential oil through village distillation.

119. Under the Sarawak Litsea project, SBC is currently seeking collaboration with both local and foreign entrepreneurs for product manufacturing and commercialization. With the commercialization of the products, negotiations between SBC and entrepreneurs will include contract supply of raw materials and royalties from the sales of the product. The following diagram shows the linkages between the community, SBC and entrepreneurs and the respective roles of the parties involved.



120. Under this Component, three communities namely the Bidayuh, the Lun Bawang and the Kelabit communities from Kampung Kiding, Long Semadoh Area (Long Telingan and Long Kerebangan) and Bario Area (Pa'Ukat and Pa'Lungan) will be involved. The Bidayuh community from Kampung Kiding will be involved in distillation of raw materials and in product development for pre-commercialization. The Lun Bawang community will be involved in distillation of raw materials and in cultivation while the Kelabit community will be involved in cultivation and product development for pre-commercialization. At this pre-commercialisation stage, the communities involved will be receiving some monetary benefits from the supply of raw plant materials, and essential oil.

Expected Outputs and Benefits:

- Capacity building among ethnic communities of Sarawak in providing and preparing quality raw materials in a sustainable manner for prototype product development and pre-commercialization
- Improved process in creating a value chain for product development and pre-commercialization
- Improved method to ensure sustainable collection of raw plant materials, essential oil production and also cultivation of plants for sustainable supply of raw plant materials among the ethnic communities in Sarawak.
- Enhanced infrastructure and technology in developing prototype products at SBC and other research institutions collaborating with SBC
- Improved infrastructure and techniques for product development at pre-commercialization stage among industries in Sarawak

Component B
Benefits shared with ethnic communities of Sarawak and Private Sectors based on Mutually Agreed Terms

121. As traditional knowledge of the ethnic communities is used as leads for research, SBC understands the importance of various intellectual property protection to safeguard the Sarawak's rich genetic resources, biodiversity and traditional knowledge.

122. SBC has registered the essential oil produced from the plant *Litsea cubeba* which grows in Sarawak, as 'Sarawak Litsea' for Geographical Indication in Malaysia. The oil composition of Sarawak Litsea clearly varies from the essential oil of *Litsea cubeba* from other countries. Other forms of intellectual property protection with regards to Sarawak Litsea include registration for trademark and patent. Products that contain the essential oil Sarawak Litsea will carry the trademark LitSara to indicate that it is a value added product.

123. This component aims to develop a guideline on how benefit sharing could be established with ethnic communities in Sarawak when their traditional knowledge associated with genetic resources is used for product development in the healthcare, personal care and cosmeceutical industries.

Expected Outputs & Benefits

- Increased understanding and awareness among communities on the potential benefits arising from the utilization of their traditional knowledge
- Development of Sarawak-specific guidelines for sharing of benefits when collaborating with ethnic communities in Sarawak in developing their traditional knowledge associated with genetic resources
- A model ABS agreement with fair and equitable benefit sharing provisions is developed based on input from communities, SBC and industries

124. Under this pilot project, SBC will encourage *in-situ* conservation of the habitat where *Litsea cubeba* is found. The natural habitat where *Litsea* is found will be maintained by the community since the community will need to sustainably harvest the *Litsea*. This is part of the procedure for Good Wildcraft Practice[30]. Besides that they will also be involve in *ex-situ* conservation of plants since they will be encouraged to carry out contract farming. Areas which are disturbed and not utilized by the community will be planted with *Litsea*.

3.4 Best practice pilot ABS agreement and PIC processes in Malaysia are made available to regional audiences.

125. The proponents of each pilot project will document lessons learned as part of annual progress reporting, and compile a full description of the process followed, results and lessons learned as part of a final technical completion report for each pilot project. This information will be used for compiling the project completion report and made available as case studies on the ABS section of the national CHM website.

126. The results and lessons from these demonstration activities will also be made available to national and regional audiences (for example, through the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB)) and provide feedback for refinement of the national ABS framework and implementation processes. Global audiences with a professional interest in

[30] For a description see: http://en.wikipedia.org/wiki/Wildcrafting

ABS would be reached through dissemination of results at a proposed side event during a forthcoming CBD COP meeting.

127. The project management office will also make information available to national and local media in line with its communications strategy.

3.5Awareness raising activities are integrated into pilot projects to increase understanding of the values of biological resources under the stewardship of participating ILCs.

128. Awareness raising activities will be included as an integral part of the pilot projects in order to increase the understanding of the participating ILCs regarding the values of the biological resources (eg dipterocarp forest) under their stewardship. These will include seminars, informal discussion sessions and videos appropriate for indigenous audiences. Assessments of awareness levels among these audiences will be conducted at project inception and project completion to determine shifts in understanding through **Output 2.5**. Increased understanding of the values of these resources, as realized through the demonstration projects, will provide incentive for their conservation and sustainable use.

PROJECT INDICATORS

129. The project indicators contained in Section II / Part II (Strategic Results Framework) include only impact (or 'objective') indicators and outcome (or 'performance') indicators. They are all'SMART'[31].

130. The project may however need to develop a certain number of process-oriented indicators to compose the 'M&E framework' at the demonstration project level. For this reason, M&E requirements will be included for each of the demonstration projects as an integral part of the agreements for their implementation.These indicators are expected to feed into the project's overall M&E framework. It is envisaged that the project's overall M&E framework will build on UNDP's existing M&E Framework for biodiversity programming.

131. The organisation of the logframe is based on the general assumption that:*if*(Outcome 1) an operational national regulatory and institutional framework on ABS is established; and*if*(Outcome 2) there is strengthened national institutional and stakeholder capacity for implementation of the national ABS framework; *and if* (Outcome 3) best practice ABS processes (three) are demonstrated recognizing the principles of PIC and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits; *then*(Project Objective) the conservation and sustainable use of biological and genetic resources in Malaysia will be strengthened through developing the national framework for the implementation of Access and Benefit Sharing under CBD.This logic is based on the barrier and root-cause analysis carried out during project preparation (refer to Section I, Part I, chapter 'Long-term solution and barriers to achieving the solution').

132. In turn, the choice of indicators was based on two key criteria: (i) their pertinence to the above assumption; and (ii) the feasibility of obtaining / producing and updating the data

[31] Specific, Measurable, Achievable, Relevant and Time-bound.

necessary to monitor and evaluate the project through those indicators.The following are therefore the project's key indicators:

Table 2. Elaboration on Project Indicators

INDICATOR	EXPLANATORY NOTE
At objective level: To strengthen the conservation and sustainable use of biological and genetic resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing under CBD	
1.National ABS law, regulations and institutional framework in place which will enable Malaysia to accede to the Nagoya Protocol	National law and implementing regulations on ABS gazetted and national and state Competent Authorities designated. This information should all be published in the official government gazette.
2.Financial and funding mechanism(s) for the management of ABS monetary benefits	Financial and funding mechanism(s) framework established and operational for the reinvestment of proceeds from ABS agreements into conservation. The project will design and establish these mechanisms at state and federal levels, led by NRE. The approval and establishment of the mechanism should be announced officially by the government.
At outcome 1 level– An operational national regulatory and institutional framework on ABS	
1.National law and implementing regulations on ABS come into force	National law and implementing regulations on ABS published in the official government gazette.
2.National and State Competent Authorities identified and operational for full implementation of national law and regulations on ABS	National and State Competent Authorities will be identified for all (13) States and operational for full implementation of national law and regulations on ABS by end of project. This information will be confirmed by official government records; national law and implementing regulations on ABS.
3.Institutional framework for *sui generis* systems for protection of traditional knowledge and customary uses of biological resources developed under the auspices of SaBC and used to inform national framework development	A supportive institutional framework for *sui generis* systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources will be developed for Sabah State by the end of the project, and used to inform the development of a model community protocol. Such information on the institutional framework for *sui generis* systems will be available in official government records (SaBC) and project reports (specifically on the pilot project implemented by SaBC under this component).
4.Financial and funding mechanism(s) established at federal and state levels to receive and reinvest proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components	Financial and funding mechanism(s) established at federal and state levels by end of Year 3 to receive and reinvest proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components. The project will design and establish these mechanisms at state and federal levels, led by NRE. The approval and establishment of the mechanism should be announced officially by the government.
At outcome 2 level – Strengthened national institutional and stakeholder capacity for implementation of the national ABS framework	
1.Improved capacities of	A draft ABS capacity development scorecard was developed and used to provide

INDICATOR	EXPLANATORY NOTE
national and state competent authorities for ABS implementation as shown byan increase of at least 30% in the draft ABS Capacity Development Scorecard.	baseline scores for NRE (federal level), SBC and SaBC (state level) as indicated in the SRF. See **Annex 2** for details. Scores for each question were summed and divided by the total possible score (some questions may not be applicable) in order to reach the total percentage score. No baselines were possible for other states in the absence of existing responsible authorities for ABS. The same scorecard should be completed including explanatory notes at project midterm and completion in order to assess progress.
2.Number of NCA, state and related agencies trained on ABS and bioprospecting related subjects to facilitate implementation of the national ABS framework.[32]	The end of project target is 100 staffs from the NCA, 13 state CAs and related agencies (see footnote 35) are trained. Evaluation forms should be completed by all participants at the end of each training session to check whether training objectives were achieved, and the results summarized in project reports to assess their effectiveness.
3.Percentage of the population of researchers, local communities, and relevant industry targeted by the campaign is aware of the national law and CBD and NP provisions related to ABS and traditional knowledge (TK) among stakeholders including researchers, public, ILCs and industries	The end of project target is 80% of the population of researchers, local communities, and relevant industry targeted by the campaign is aware of the national law and CBD and NP provisions related to ABS and traditional knowledge (TK) among stakeholders including researchers, public, ILCs and industries. See **Annex 3** for the proposed methodology to be used to establish baselines for each awareness activity, and to assess progress by the end of the project.
At outcome 3 level – Best practice ABS processes (three) are demonstrated recognizing the principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.	
1.Number of ABS pilot agreements negotiated for initial commercialization of prototypes with fair and equitable benefit sharing provisions	At least 2 ABS pilot agreements negotiated for initial commercialization of prototypes with fair and equitable benefit sharing provisions. This outcome relates specifically to the demonstration projects implemented by FRIM (the pilot with the Semai in Perak) and SBC, which aim to produce such ABS agreements by the end of the project.
2.Number of PIC processes[33] with ILCs implemented in accordance with the planned PIC/community protocol	At least 3 PIC processes with ILCs implemented in accordance with the planned PIC/community protocol. PIC processes will be carried out by all three pilot projects in this component as an integral part of project implementation, seeking to demonstrate best practice approaches.
3.Number of best practice pilot ABS agreements and PIC processes disseminated at regional level	Best practice pilot ABS agreements and PIC processes presented/shared at ASEAN level in Year 4, published in workshop proceedings and made available through NRE website. Project results would also be presented at a future CBD COP side event hosted by NRE.
4.Number of ABS agreements arising from the pilot projects that specify conservation measures to ensure the security of the concerned biological resources	At least 2 ABS pilot agreements arising from the pilot projects are negotiated that, when necessary, include *in situ* and/or *ex situ* conservation measures to ensure the security of the concerned biological resources. This is likely to include the option of *ex situ* cultivation of the plant resources subject to bio-prospecting, and in situ community-based conservation will be encouraged for the Sarawak pilot project. *In situ* conservation for pilots in Peninsular Malaysia is more complex due to legal constraints, but negotiations will be opened with the relevant agencies to pursue the options available.

[32]Potentially staff in MOSTI in charge of public research grants, university staff in charge of research grant administration, product approval under MOH and MyIPO

[33] These would be the processes leading up to the signing of ABS pilot agreements above.

INDICATOR	EXPLANATORY NOTE
5.At least 80% of the population of ILCs participating in the pilot projects are aware of the existence, use and option values of the biological resources under their stewardship.	Structured assessments involving interviews and /or questionnaires will be conducted for targeted ILCs at the start of the pilot projects to determine baselines, and repeated at project completion in order to determine measurable changes in knowledge attitudes and practices as a result of awareness activities conducted as an integral part of the pilot projects.

RISKS AND ASSUMPTIONS

133. The project strategy, described in detail within this project document, makes the following key assumptions in proposing the GEF intervention:

- Baseline conditions in the selected areas can be extrapolated with high confidence level to other biodiversity rich areas and lessons learnt can be successfully disseminated.
- Increased awareness and capacity will lead to a change in behaviour with respect to the conservation of biodiversity in Malaysia.
- Access and benefit sharing of biological resources will gradually become a national priority for Malaysia as knowledge and information is made available.

134. During project preparation, risks were identified, elaborated and classified according to UNDP/GEF Risk Standard Categories[34], and assessed according to criteria of 'impact' and 'likelihood' (see **Box 1** below). These risks and the mitigation measures will be continuously monitored and updated throughout the project, and will be logged in ATLAS and reported in the PIRs. The UNDP Environmental and Social Screening Procedure (see **Annex 4** of the Project Document) has been applied during project preparation and did not identify any significant environmental or social risks associated with the proposed project. In general, the project will contribute positively towards the conservation of biodiversity and maintenance of ecological stability, as well as towards an improved legal framework for ABS through which indigenous and local communities have increased potential to benefit from bio-prospecting activities, including improved prospects for preservation of their traditional knowledge.

[34]Includes the following eight categories: environmental; financial; operational; organizational; political; regulatory; strategic; and other.

Box1. Risk Assessment Guiding Matrix

Likelihood \ Impact	CRITICAL	HIGH	MEDIUM	LOW	NEGLIGIBLE
CERTAIN / IMMINENT	Critical	Critical	High	Medium	Low
VERY LIKELY	Critical	High	High	Medium	Low
LIKELY	High	High	Medium	Low	Negligible
MODERATELY LIKELY	Medium	Medium	Low	Low	Negligible
UNLIKELY	Low	Low	Negligible	Negligible	Considered to pose no determinable risk

Table 3. Project Risks Assessment and Mitigation Measures

Identified Risks	Category	Impact	Likelihood	Risk Assessment	Elaboration of Risks	Mitigation Measures
Target audiences for training, awareness raising and other capacity building activities are notcommitted to participate in project activities	Operational	Medium	Moderately Likely	Low	Some intended target audiences may not attach high priority to project activities vs their other duties and activities, affecting their level of participation.	Measures will vary with target audience. For ILCs, careful timing to avoid busy farming periods and provision of incentives to participate are often required. For government officials, high level requests to participate and selection of suitable venues for training are important.
Potential delay in approval of the national ABS Bill would delay some Component 1 & 2 activities such as the legal mandate for a national financial mechanism for reinvestment of ABS proceeds into conservation.	Operational	Medium	Moderately Likely	Low	The national draft ABS Bill includes a clause for establishment of such a financial mechanism. Therefore delays in the approval of the Bill would delay the establishment of the financial mechanism.	The project will conduct extensive consultation and advocacy campaigns with the state level stakeholders to create awareness and political will to take up the proposed ABS regulatory framework and approve the national ABS Bill. Benefit sharing is still feasible through specific ABS agreements in the absence of the national law; as well as under state level legislation in some cases.
Active ingredients investigated in pilot projects fail to show promise as prototypes preventing PIC processes to	Operational	Medium	Unlikely	Negligible	The early screening of active ingredients during bio-prospecting for potential products does not guarantee that prototypes can be successfully developed, leading	The selection of pilot projects for inclusion in this project has been carefully based on the experience of the agencies involved, existing lines of research and development, and the application of traditional knowledge. Potentially, the screening process could be

Identified Risks	Category	Impact	Likelihood	Risk Assessment	Elaboration of Risks	Mitigation Measures
run to completion of ABS agreements and provide actual benefits for sharing					towards commercialization. An element of trial and error is involved.	adjusted or expanded during implementation in order to reduce this risk.
Potential difficulties in adopting the national ABS regulatory framework by relevant stakeholders especially at the state level due to the federal-state constitutional structure.	Political	High	Moderately Likely	Medium	The national draft ABS Bill has been drafted and is currently out for consultation. Certain states have existing ABS-related legislation that would require amendment or repeal, and concerns about the balance of control over their natural resources. These concerns will need to be addressed in order for the national Bill to pass.	The project will conduct extensive consultation and advocacy campaigns with the state level stakeholders to create awareness and political will to take up the proposed ABS regulatory framework. NRE and the project will conduct forums or seminars targeting legislators (Members of Parliament) to advocate for their support to the new ABS regulatory framework. The project and NRE will also involve the AG's Chambers throughout the consultation process for the ABS Bill and subsidiary regulations. Modification of the draft ABS Bill to address the concerns of certain states may need to be considered if other approaches are not successful.
Government staff turnover may impede project implementation	Operational	Medium	Likely	Medium	Some senior government staff with strong knowledge of ABS related subjects are likely to retire or move position during the project period. Less experienced staff may therefore have to lead on some activities.	The project generally aims to build capacity within the government agencies involved in ABS issues, and will train several people from each competent authority, as well as other related agencies. This will increase the depth of experience and skills available both for the project and future ABS work. The advancement of this subject area also provides increased opportunity and incentive for staff to remain involved.

Identified Risks	Category	Impact	Likelihood	Risk Assessment	Elaboration of Risks	Mitigation Measures
Commercial confidentiality restrictions may limit information sharing on development process	Operational	Low	Moderately Likely	Low	The development of prototype and final commercial products through bio-prospecting processes requires a high degree of confidentiality in order to protect intellectual property rights, which may affect the amount of information that can be shared on pilot projects supported by this project.	Subcontracts for the pilot projects will specify what information can and cannot be made publicly available through mutual agreement. In general, the demonstration focus of this project is on best practice PIC processes and benefit sharing agreements rather than the commercial products themselves, so this is unlikely to be of significant concern regarding the project outcomes.

INCREMENTAL REASONING AND EXPECTED GLOBAL, NATIONAL AND LOCAL BENEFITS

135. This Project aims to strengthen the conservation and sustainable use of biological resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing under CBD, including raising national capacity to the stage of implementation-readiness.

136. **The incremental approach of the proposed project is summarized as follows**: The Government of Malaysia has identified the introduction of a national ABS framework consistent with the CBD's provisions as a priority and is investing significantly in efforts to develop the national biotechnology industry and the documentation and protection of traditional knowledge. There are ongoing investments from Malaysian government bodies and the commercial sector in bio-prospecting. However, while these activities are consistent with the requirements of existing legislation, there remain weaknesses in the current legal and regulatory framework that do not require that PIC processes and ABS agreements involving the equitable sharing of benefits will fully implement the provisions of the CBD and the Nagoya Protocol. Even without the project Malaysia would still work towards the implementation of its obligation under Article 15 of the CBD but success to achieving the ABS objectives of the CBD would be limited. Therefore, ILCs in particular may not gain from bio-prospecting, although their land and traditional knowledge may be utilized. The Government of Malaysia therefore aims to ensure that all parties, including the federal and state governments and ILCs stand to benefit through the fair and equitable distribution of benefits from bio-prospecting. Efforts to date have been inadequate to remove the existing barriers to the introduction of an effective national ABS regime that will contribute towards biodiversity conservation and encourage sustainable use of biological resources, therefore the threats of ecosystem degradation, deforestation and land conversion remain, forgoing the opportunity of future bio-discovery options.

137. **Without GEF investment in the proposed project**, acceptance of the national ABS Bill by all states will be difficult to obtain or at least is likely to drag on, delaying its approval and the implementation of the national ABS regime as is evident now. It is also likely that accession to the Nagoya Protocol will face continued resistance from certain quarters, which will be more difficult to resolve without project support. The lack of technical expert input towards the development of implementing regulations will affect their completion and quality, and supporting information sharing mechanisms and guidance materials may not be available. The absence of a national financial and funding mechanism to receive monetary benefits from ABS agreements and to reinvest these weakens national potential for the sustainable financing of biodiversity conservation. Inter-agency and inter-state coordination for biotechnology development will remain weak, resulting in potential conflicts and confusion which may adversely affect investor confidence. Levels of awareness among decision makers, sectoral agencies, the commercial sector and ILCs amongst others concerning the potential benefits of an effective ABS regime will continue to remain low. Resources will not be available to support the level of capacity building needed to bring the NCA, state CAs, checkpoint authorities and other stakeholders to implementation readiness in the short term, and local experience and information-sharing on the development of PIC, MAT and benefit-sharing will remain inadequate. Bio-prospecting and use of traditional knowledge resources will continue to be weakly regulated, thereforeILCs across the country at risk of losing out on the benefits associated with bio-prospecting and there will be little incentive for improving the security of biological resources at local level. It is highly possible that biopiracy will be rampant without the GEF intervention to strengthen the existing regulatory system. The Tongkat Ali *Eurycoma longifolia* plant and the recent "*Muscodor Strobelii*" fungus cases are some examples which reflect the weaknesses of the existing regulatory system when patent protections are granted to products of biotechnology that are based upon biological resources from Malaysia without the prior informed consent of Malaysia and without any benefit sharing with Malaysia. Without uniform and streamlined access rules, fees and conditions, states within Malaysia which have similar biodiversity are more likely to fight against each other causing downward-spiral competition. Overall, the constituency and financial resources for biodiversity conservation will not advance beyond baseline levels.

138. **Alternative scenario enabled by the GEF:** The project complements baseline programmes and projects by supporting the development of the national ABS framework, addressing this at a whole country level and putting in place supporting capacity to enable effective implementation. This will enable the rapid completion of national ABS legislation, preparation and approval of implementing regulations, identification of NCA and state CAs, and the processes and machinery required for full implementation of the ABS regime in line with CBD and Nagoya Protocol requirements. It will also break new ground in developing a *sui generis* framework focusing on the use of community protocols for traditional knowledge and genetic resources, demonstrated in Sabah. Considering the constitutional structure that the subject of forests and land are under the jurisdiction of the state governments, this project will enhance the communication and cooperation between these agencies through outputs identified above. Intensive awareness raising and capacity building efforts will ensure that all concerned stakeholders understand the principles behind the ABS regime, the requirements for its implementation, and the potential benefits that can be realized to different parties. The project will also facilitate the reinvestment of benefits from ABS agreements back into biodiversity conservation and supporting ILCs through official mechanisms. The NCA, state CAs,

checkpoint authorities and other stakeholders will be brought rapidly to implementation readiness, and through the pilot projects, the inclusion of appropriate PIC, MAT and ABS agreements in bio-prospecting and product development processes will be demonstrated, and community protocols for use of ILC traditional knowledge developed. The results and lessons learned from the project will also be shared and contribute to global best practices on ABS, thus informing other countries (in particular ASEAN countries) to develop and implement suitable ABS and conservation frameworks, and providing necessary methods and modalities that can be applied in developing ABS agreements. These in turn can also provide useful guidance to the ongoing regional and global processes related to ABS. As a result, the project will ensure that the country, states and ILCs all stand to gain from the further development of Malaysia's biotechnology industry, including its participation in international projects and foreign investment.

139. National benefits will also include technology transfer, capacity building, increased knowledge and documentation of biological resources and traditional knowledge. Overall, the project will enable the country to be brought to a state of readiness regarding accession to the Nagoya Protocol. It will also increase Malaysia's attractiveness for biotechnology development and investment through the certainty, transparency and clarity of its ABS regime, mechanisms to facilitate access applications, facilitate the protection of its cultural heritage of indigenous traditional knowledge, and catalyze more effective financing and *motivation* for biodiversity conservation. These stakeholders whom capacity has been built are expected to carry out the activities beyond the life of the project. These efforts will necessarily involve strong gender components, especially within the local context of indigenous and local communities.

Global environmental benefits

140. The project will achieve global environmental benefits through enhanced national contribution towards the achievement of the three objectives of the CBD (especially Objective 3 on ABS) and of the goals of its Strategic Plan. Specifically, the project will contribute towards reduced rates of biodiversity loss in Malaysia through the following mechanisms:

- Increasing awareness of the existence, use and option values of biological resources among key audiences;
- Enabling greater economic benefits to the government and other stakeholders from genetic resources through the biotechnology industry, thereby providing incentives for biodiversity conservation;
- Providing communities that are holders of genetic resources and associated traditional knowledge with livelihood options that result in economic benefits, thereby reducing pressures for unsustainable use and conversion of ecosystems;
- Contributing to national development strategies and economic growth, reducing poverty and poverty-associated threats to ecosystem integrity; and
- Contributing towards the maintenance of global ecosystem services and conservation of biodiversity. ~~including avoided GHG emissions resulting from forest conversion.~~

National socio-economic benefits

141. The biotechnology industry has enormous potential to contribute towards the national economy, as well as to provide economic justification for the conservation and sustainable use of Malaysia's natural resources. Technology transfer will help to build Malaysia's capacity for research and development in the biotechnology industry, further supported by baseline investment in training and capacity building activities and commercial partnerships (see baseline section above for further information).

142. The potential benefits provided by bio-prospecting for ILCs, to be demonstrated by the pilot projects, provide incentives for community-based natural resource management such as community conserved areas, the sustainable use of resources and the preservation of traditional knowledge. Traditional knowledge has been increasingly acknowledged by researchers as playing a key role in combatingor, adapting to the impact of, climate change. Indigenous crops too are seen to be crucial in addressing the issues of nutrition and food security compounded by climate change impacts as they are proven to be more drought-tolerant.

143. The improved likelihood of ecosystem conservation under such a scenario will help to secure the socio-economic benefits provided by ecosystem services, to the advantage of local communities who are often most dependent upon NTFPs, and who will also benefit from ecosystem-based adaptation (such as storm protection from mangrove forests, and hydrological buffering from highland forests). As women among the local communities are more often engaged with gathering natural resources and collecting water, they are the primary beneficiaries of sustainable and quality supply of these resources. National level benefits will accrue through ecosystem services underpinning the national economy (such as hydrological regulating services, water purification, soil protection, coastal protection and pollination, for example), and global environmental benefits will include carbon sequestration and maintenance of globally significant biodiversity. While systematic information is lacking on this at the national level, a number of economic valuation studies have been conducted for different ecosystems, services and uses in Malaysia (see examples below[35]).

144.Women have unique ways of producing and transmitting knowledge, but face barriers to participating in decision-making processes, both traditional and contemporary, that favour men in positions of power. For instance, the importance of gender and the essential role of women in developing and using community protocols (one of the demonstration project themes) have long

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[35]Kumari, K. 1995. An environmental and economic assessment of forest management options: A case study in Malaysia. The World Bank. *Environment Department paper No. 026.* Washington, D.C.: The World Bank.

Tan-Soo, J.S. 2010. Economic valuation of flood mitigation services provided by tropical forests in Malaysia. MS project, Duke University.

UNEP. 2007. *Guidelines for Conducting Economic Valuation of Coastal Ecosystem Goods and Services.* UNEP/GEF/SCS Technical Publication No. 8. http://www.unepscs.org/remository/startdown/1958.html

UNEP, 2007. Procedure for Determination of National and Regional Economic Values for Ecotone Goods and Services, and Total Economic Values of Coastal Habitats in the context of the UNEP/GEF Project Entitled: *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand".* South China Sea Knowledge Document No. 3. UNEP/GEF/SCS/Inf.3
DiRocco, T.L. 2012. A thorough quantification of tropical forest carbon stocks in Malaysia. Carbon Stocks of Tropical Forests. Univ California, Berkeley Environmental Sciences 2012. 18pp.
http://nature.berkeley.edu/classes/es196/projects/2012final/DiRoccoT_2012.pdf

been considered.[36] Key lessons that will be integrated into this project include providing spaces for separate meetings and trainings with women to build their technical skills and capacities, supporting female champions and facilitators to complement (not threaten) traditional leadership, and using the strengths of customary laws (e.g. social norms of honour, pride, and reciprocity) as the basis for culturally appropriate and representative decision-making processes both within communities and in multi-stakeholder settings.

145. One of the pilot projects intends to develop a community protocol for the indigenous and local community. Community protocols help valorise traditional ecological knowledge and customary laws and resource governance systems and enable communities to articulate their own visions of environmental sustainability and the culturally appropriate terms and practices they expect from external stakeholders. Past experience shows that protocols increase not just communities' sense of pride, but also government and private sector understanding and respect for their identities and biocultural heritage.

146. The pilot projects will work closely with community facilitators, community-based organisations, and NGOs to ensure that the partner communities are integrally involved in all aspects of the project and in locally appropriate ways. This will include, among other things, regular meetings and discussions (in-person, phone, email), group reflection and revision of the project to date, focused workshops and peer training sessions (including community reporting, monitoring, and consolidation workshops), and support for community outreach and communication tools. These are part of the efforts and initiatives of Malaysia towards achieving Target 18 of the Aichi Biodiversity Targets 2010.

COST-EFFECTIVENESS

147. As one of the world's 17 mega-biodiverse countries, Malaysia has exceptional biological and genetic resources. Aside from traditional uses by its great diversity of indigenous and local communities (ILCs), these genetic resources remain largely untapped but have huge potential in the global marketplace. The Government of Malaysia has recognized this potential, as expressed in the National Biotechnology Policy (2005), a commitment by the government to develop biotechnology as a platform for an innovation-led economy. Advances in this field are expected to capitalize on the rich components of biological diversity in this country which could result in the development of products such as pharmaceuticals, nutraceuticals, cosmetics, antibiotics and vaccines. The resulting biotechnology industry is expected to lend major economic value and increased awareness of the importance of Malaysia's natural resources and biodiversity, providing strengthened arguments for conservation and sustainable use of these resources, in line with the third objective of CBD. The projected total revenue of the biotechnology industry in Malaysia for the period of 2005 to 2020 is USD 90 billion, contributing 5% to the total GDP of Malaysia.

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[36] See, for example, Köhler-Rollefson, I., 2012. *Invisible Guardians – Women manage livestock diversity.* FAO Animal Production and Health Paper No. 174. FAO: Rome, Italy; Shrumm, H., and H. Jonas, 2011. *Asia Regional Initiative on Biocultural Community Protocols: Inception Meeting Report(2-4 April, 2011: Digana, Sri Lanka).* Natural Justice: Malaysia/India.

148. Consequently, the investment of US$ 1.97 million from GEF can be considered very modest and cost-effective in comparison with the national socio-economic and global environmental benefits that will accrue from this project intervention.

149. The lack of a national ABS framework and adequate capacity for its implementation are significant barriers impeding the development of an operational ABS regime regulating Malaysia's biological resources and associated traditional knowledge and the equitable sharing of benefits from such progress. These barriers also negatively affect conservation efforts, as the full value of Malaysia's bio-diverse forests, wetlands and marine ecosystems cannot be realized and sectoral land uses such as plantation development take priority over the maintenance of biodiversity and ecosystem services, foregoing future opportunities for bio-prospecting. The project's intervention aims to remove these barriers, allowing this industry to develop, providing benefits including technology transfer to the state, commercial sector and ILCs, and strengthening arguments and motivation for biodiversity conservation.

150. Importantly, the development of the national ABS framework and demonstration of best practice PIC and ABS agreements embodying CBD's principles will also provide a secure and transparent environment for international investors, increasing Malaysia's attractiveness as a centre for biotechnology.

151. Finally, the establishment of financial mechanisms for the management of ABS and their reinvestment into conservation supported by this project will provide a sustainable source of income in the long term that will contribute towards the conservation of global significant biodiversity, as well as increasing benefits to local communities. This approach is likely to incentivize similar practices by other communities, and enhance the uptake of community based conservation approaches in Malaysia.

PROJECT CONSISTENCY WITH NATIONAL PRIORITIES/PLANS:

152. The proposed project is fully in line with the country's national policies, strategies and plans. Malaysia ratified the CBD in June 1994, and has implemented its national obligations through instruments including: the National Policy on Biological Diversity (1998), the 5-year Malaysia Plans, as well as policies such as the National Policy on the Environment (2002), National Wetlands Policy (2004), National Physical Plan (2005), and National Urbanisation Plan (2006), and a number of legislative initiatives implemented through an institutional framework coordinated by the Ministry of Natural Resources and Environment. Biotechnology has been identified by the Government as an area of high priority, evident by the launching of the National Biotechnology Policy in 2005, a commitment by the government to develop biotechnology as a platform for an innovation-led economy. Advances in this field are expected to capitalize on the rich components of biological diversity in this country which could result in the development of products such as pharmaceuticals, antibiotics and vaccines. Several States in Malaysia have also put in place their respective biotechnology blueprints and legislative measures (such as Perak and Johor), with the vision to be the prime movers of biotechnology activities.

153. However, as identified in the National Capacity Self-Assessment (NCSA), there still remain capacity gaps which make the implementation of these initiatives a difficult task. This is where this project aims to intervene. The National Capacity Action Plan developed in 2008 (NCAP) has identified 25 activities to improve and enhance the implementation of three environmental conventions, including the CBD.

154. Malaysia's vision 2020 under the National Policy on Biological Diversity (1998) is to transform Malaysia into a world centre of excellence in conservation, research and utilisation of tropical biological diversity. It encourages the wise use of the components of biodiversity for sustainable development. Its Action Plan includes, *inter alia*, strategies to integrate conservation, research and development with effective utilisation of biological diversity, commercialization and sustainable utilisation of biological resources through bio-prospecting and ensuring fair distribution to the nation and local communities of benefits arising from the use of biological resources. The National Policy on Biological Resources (1998) and its Action Plan are currently being revised under the NBSAP project (2012 – 2015), supported by UNDP Malaysia and funded by GEF and the Government of Malaysia, in order to implement the Aichi Targets adopted at the 11th Conference of the Parties in 2010.

155. Malaysia's efforts in conserving biodiversity and associated TK can be seen in several other initiatives. Among others, the Government in 2011 has adopted the 5-year Central Forest Spine Master Plan, under which four major but isolated forest complexes will be connected to form one large 5.3 million ha forest complex. Two forest reserves in Johor and Sarawak has been identified as Genetic Resource Areas, where the Government targeted 8 and 14 commercial species respectively for genetic conservation. Starting from the 9th Malaysia Plan (2006-2010), the Government initiated TK documentation with the view to preserve and conserve the indigenous peoples' fast disappearing knowledge relating to biological resources. The Federal and State Government (Sarawak) also initiated a project respectively to develop the Prior Informed Consent/Community Protocol for indigenous and local communities. In the ABS context, Malaysia played an active role in the negotiations under the CBD leading up to the adoption of the Nagoya ABS Protocol.

156. Furthermore, the Government with financial support from UNDP Malaysia developed the draft Access and Benefit Sharing Bill in 2010 to implement Article 15 of the CBD. The Bill aims to regulate access to biological resources and associated traditional knowledge and to ensure the fair and equitable sharing of benefits from their research and commercial utilization. The draft Access and Benefit Sharing Regulations also has been drafted in 2011 pending consultations with relevant stakeholders.

157. Malaysia has also joined other biodiversity related conventions including the Ramsar Convention (since 1994), and CITES (since 1978). Malaysia is also a party to the International Treaty on Plant Genetic Resources for Food and Agriculture (since 2003) and has started to implement its Multilateral System under the auspices of the Ministry of Agriculture. The Government also follows closely the negotiations that are underway in related fora, namely the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore; and the Commission on Genetic Resources for Food and Agriculture

on ABS issues. Malaysia participates actively in regional ASEAN environmental initiatives and has provided advice and expert support on ABS issues to the member states of ASEAN.

COUNTRY OWNERSHIP: COUNTRY ELIGIBILITY AND COUNTRY DRIVENNESS

158. Malaysia ratified the CBD in June 1994, and has implemented its national obligations through a variety of national policy and legislative instruments (see above section). Malaysia's commitment to biodiversity conservation is also evident from the country's participation in other biodiversity related conventions including the Ramsar Convention (since 1994), and CITES (since 1978). In the ABS context, Malaysia played an active role in the negotiations under the CBD leading up to the adoption of the Nagoya ABS Protocol. Malaysia is also a party to the International Treaty on Plant Genetic Resources for Food and Agriculture (since 2003) and has started to implement its Multilateral System under the auspicies of the Ministry of Agriculture and Agro-Based Industry. The Government also follows closely the negotiations that are underway in related fora, namely the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore; and the Commission on Genetic Resources for Food and Agriculture on ABS issues. As evident from the project baseline (see above), the Government of Malaysia is investing heavily in the biotechnology industry and is making serious efforts to establish an appropriate regulatory and institutional framework for ABS related to its biological resources and associated traditional knowledge.

159. Malaysia has actively participated in GEF supported projects and programmes at national, regional and global levels. See www.thegef.org/gef/country_profile/MY for further information.

SUSTAINABILITY AND REPLICABILITY

160. The project is innovative in the national context, as ABS is a new emerging field and the project will enable the biotechnology industry to take full advantage of Malaysia's rich biological resources in line with national economic development priorities. Also, while some commercial agreements have been developed for bioprospecting in Sabah and Sarawak, these have yet to fully comply with the requirements of CBD for PIC, MAT and benefit sharing with ILCs and other stakeholders, so the proposed best practice pilot projects will truly be leading the way for future agreements, as well as providing the first steps towards more collaborative governance of natural resources.

161. **The Environmental and Social Screening Procedure (ESSP)** was followed during project preparation, as required by the ESSP Guidance Note of the UNDP. Accordingly, the environmental and social sustainability of project activities will be in compliance with the Environmental and Social Screening Procedure for the project (please see **Annex 4** for the full ESSP summary). The ESSP identified no significant issues for this project that would result in negative environmental and social impacts. Overall, the project is expected to result in major long term positive impacts for biodiversity conservation in Malaysia and for the improved recognition and protection of ILCs' traditional knowledge and biological resources.

162. For example, one of the principles for bio-prospecting permitting is to ensure that exploitation of the biological resources is conducted in a sustainable manner, and this is expected to be included in any related agreements. Also the advancement of technology allows the development of synthetic compounds which could significantly reduce future reliance on raw materials. At a higher level, the project will remove barriers enabling the development of Malaysia's biotechnology industry, which is expected to lend major economic value and increased awareness of the importance of Malaysia's natural resources and biodiversity, providing strengthened arguments for conservation and sustainable use of these resources, in line with the third objective of CBD. Similarly, the ABS regime that the project aims to put into place will meet CBD requirements, ensuring the protection of traditional knowledge belonging to Malaysia's diverse population of ILCs and the fair and equitable sharing of benefits from the development of biological resources among all concerned parties. This will be a significant improvement on the current situation, where no such protection exists.

163. The project's financial sustainability is likely to be strong on two counts. First, the establishment of financial mechanisms for the management of ABS and their reinvestment into conservation supported by this project will provide a sustainable source of income in the long term that will contribute towards the conservation of global significant biodiversity, as well as increasing benefits to local communities. And secondly, the project will remove barriers allowing the national biotechnology industry to develop, and creating a conducive environment for investment from international companies with an interest in bio-prospecting.

164. By installing a comprehensive national framework for ABS, including a national law, implementing regulations, institutional set up, supporting information management and capacity building for the competent authorities and related agencies, the project will demonstrate strong institutional sustainability under the leadership of NRE. NRE has obtained approval for the establishment of a National Biodiversity Centre, to be financially supported under the 10th Malaysia Plan. Once in place, this centre will receive operational funds from the Malaysian Government and may become the body responsible for implementing the proposed national ABS law. Institutional sustainability is also underpinned by the fact that baseline activities have already included extensive consultation with stakeholders at all levels, including ILCs from all over the country as well as a wide range of sectors, and that the project will support a continued inclusive and consultative approach supported by awareness raising measures in order to introduce the national ABS framework.

165. The outcomes of the project will be scaled up through the dissemination of project results, lessons learned and experiences including demonstration of best practices in the development of ABS agreements and PIC processes. This will be achieved through making project information available in a timely manner through the NRE website as well as Malaysian government participation in ASEAN environmental initiatives and CBD events. The sharing of benefits with ILCs through ABS agreements is likely to incentivize involvement in ABS processes by other communities, and enhance the uptake of community based conservation approaches in Malaysia.

PART III: Management Arrangements

IMPLEMENTATION ARRANGEMENTS

166. The project's implementation and execution arrangements will focus on maintaining strong collaboration and cooperation, and avoid duplication of effort, among ABS related initiatives in Malaysia during the four year implementation period. The Ministry of Natural Resources and Environment (NRE)is the government institution responsible for the daily execution and coordination of the project and will serve as the government *Executing Agency* (EA). UNDP is the sole *GEF Implementing Agency* (IA) for the project. The project is nationally executed (NEX), in line with the Standard Basic Assistance Agreement between the UNDP and the Government of Malaysia, and the Country Programme Action Plan (CPAP). Other executing partners include: Forest Research Institute Malaysia (FRIM), Centre of Excellence for Biodiversity Law (CEBLAW), Sabah Biodiversity Centre (SaBC) and Sarawak Biodiversity Centre (SBC), who each will have specific roles to play concerning the execution of the project components.

Project Oversight

167. Oversight of project activities will be the responsibility of the National Steering Committee (NSC). Day-to-day operational oversight will be ensured by UNDP, through the UNDP Country Office in Kuala Lumpur, and strategic oversight by the UNDP/GEF Regional Technical Advisor (RTA) responsible for the project. This oversight will include ensuring that the project practices due diligence with regard to UNDP's Environmental and Social Screening Procedure (see **Annex 4** for details). The structure of project management and oversight arrangements is shown in the organogram in **Section IV Part II** below.

168. *NRE* will take overall responsibility for the project execution, and the timely and verifiable attainment of project objectives and outcomes, but will report to the NSC. NRE will provide support to, and inputs for, the implementation of all project activities, and recruitment of project staff and contracting of consultants and service providers with the advice from and involvement of the UNDP. International procurement will be mainly handled by the UNDP upon request of the NRE. NRE will nominate a high level official (Under-Secretary of the Biodiversity and Forestry Management Division) who will serve as the *National Project Director (NPD)* for project implementation. The NPD will be responsible for providing government oversight and guidance for project implementation. The NPD will not be paid from the project funds, but will represent a Government in-kind contribution to the Project.

169. The *UNDP Country Office (UNDP-CO)* will be responsible for: (i) providing financial and audit services to the project; (ii) overseeing financial expenditures against project budgets approved by NSC; (iii) appointment of independent financial auditors and evaluators; and (iv) ensuring that all activities including procurement and financial services are carried out in strict compliance with UNDP/GEF procedures. A UNDP staff member will be assigned the responsibility for the day-to-day management and control over project finances.

170. The *National Steering Committee* (NSC)will be convened by NRE and may include NGO membership. The NSC will comprise relevant national and state agencies, and membership by

those agencies should remain consistent. The NSC will serve as the project's coordination and decision-making body. The NSC meetings will be chaired by the Secretary General of NRE. It will meet according to necessity, but not less than once in 6 months, to review project progress, approve project work plans and approve major project deliverables. The NSC is responsible for ensuring that the project remains on course to deliver products of the required quality to meet the outcomes defined in the project document. The NSC's role will include: (i) overseeing project implementation; (ii) approving annual project work plans and budgets, at the proposal of the Project Manager (PM), for submission to UNDP; (iii) approving any major changes in project plans or programmes; (iv) providing technical input and advice; (v) approving major project deliverables; (vi) ensuring commitment of resources to support project implementation; (vii) arbitrating any conflicts within the project and/or negotiating solutions between the project and any parties beyond the scope of the project; (viii) overall project evaluation and (ix) ensuring that UNDP Environmental and Social Screening Procedure safeguards are applied to project implementation.

171. The NSC will be chaired by the Secretary General of NRE and include the following stakeholders: Federal Economic Planning Unit (EPU), Public Service Department, Ministry of Science, Technology and Industry (MOSTI), Ministry of Agriculture and Agro-Based Industry (MoA), Ministry of Plantation Industries and Commodities (KPPK), Ministry of Finance (MoF), Ministry of Rural and Regional Development (KKLW), Ministry of Domestic Trade, Co-operatives and Consumerism (MDTCC), Forest Research Institute Malaysia (FRIM), Department of Forestry Peninsular Malaysia (JPSM), Department of Wildlife and National Parks (PERHILITAN), Marine Parks, Sabah Biodiversity Centre (SaBC), Sarawak Biodiversity Centre (SBC), UNDP and NGOs. Specific NSC membership and terms of reference will be finalized during the Project Inception Workshop.

172. A *Technical Working Group (TWG)* will be established to handle all technical matters relating to the project and will be chaired by the NPD. The members of the TWG will consist of representatives from NRE, Attorney General's Chambers (AGC) / NRE's Legal Advisor (LA-NRE), CEBLAW, and other relevant stakeholders to be determined by the NSC. Consultants and technical support will be provided by local and international professionals with extensive experience of the subject areas required by the project. The specific consultancy inputs required are detailed in **Section IV Part III.** The UNDP global knowledge network will also provide inputs through best practices and lessons learned from similar experiences in other countries.

Project Management

173. The day-to-day administration of the project will be carried out by a *Project Management Unit* (PMU) within the NRE comprised of a PMU Director, Project Manager (PM), a Project Assistant, and additional support staff. The project staff will be recruited following UNDP and NRE recruitment procedures. The PM will, with the support of the Project Assistant, manage the implementation of all project activities, including: (i) preparation/updates of project work and budget plans, record keeping, accounting and quarterly and annual progress reporting; (ii) drafting of terms of reference, technical specifications and other documents as necessary; (iii) identification, proposal of project consultants to be approved by the NSC, coordination and supervision of consultants and suppliers; (iv) organization of duty travel, seminars, public outreach activities and other project events; and (v) maintaining working contacts with project partners at the central and local levels.

174. The PM is accountable to the NRE and the NSC for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. The PM will produce Annual Work Plan and Budget Plansto be approved by the NSC. These plans will provide the basis for allocating resources to planned activities. The PM will further produce quarterly operational reports and Annual Progress Reports (APR) for submission to the NSC. These reports will summarize the progress made by the project versus the expected results, explain any significant variances, detail the necessary adjustments and be the main reporting mechanism for monitoring project activities. The PM will also be technically supported by contracted national and international service providers. Recruitment of specialist services for the project will be done by the PM in consultation with the UNDP and the NRE. The PM will also liaise and work closely with all partner institutions to ensure good coordination with other complementary national programmes and initiatives. The organogram for project management (see **Section IV Part II**) illustrates the working relationship between all the main project implementing parties or bodies.

Project Management for Demonstration Projects

175. Under the supervision of the central Project Management Unit, project management for the implementation of demonstration activities in Component 3 will be coordinated through an exchange of letters (a recognized form of agreement) between NRE as EA and the project partner responsible for implementation of each demonstration (pilot) project, namely FRIM (for pilot projects in Perak and Kedah), SaBC (for pilot projects in Sabah) and SBC (for pilot projects in Sarawak). The exchange of letters will include as a minimum the following items: Statement of Work for the activities to be undertaken (objectives; technical specifications of the activities to be performed; deliverables and verifiable indicators; schedule for implementation; M&E and reporting requirements; responsibilities of each party); budget and disbursement schedule; supervision, review and acceptance; procedure for termination. The management arrangements for the demonstration projects must be entirely consistent and integrated with those for the overall project, including the project M&E Plan, reporting requirements and budget disbursement. The local management arrangements for each pilot project will be described in the exchange of letters, and are expected to include representation of principal stakeholders such as relevant state authorities, ILCs and other partners in their implementation. There will be equitable participation of women and ethnic minorities on local level committees and groups related to PIC negotiations, community co-management, training and awareness activities. See the **Stakeholder Participation Plan in Section IV Part IV** for further details.

PART IV: Monitoring and Evaluation Plan and Budget

MONITORING AND REPORTING[37]

176. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Country Office (UNDP-CO) with support from the UNDP/GEF Regional Coordination Unit in Bangkok.

[37] As per GEF guidelines, the project will also be using the BD 1 Management Effectiveness Tracking Tool (METT). New or additional GEF monitoring requirements will be accommodated and adhered to once they are officially launched.

The Strategic Results Framework in **Section II Part I** provides performance and impact indicators for project implementation along with their corresponding means of verification. The M&E plan includes: inception report, project implementation reviews, quarterly and annual review reports, and mid-term review and final evaluation. The following sections outline the principal components of the M&E Plan and indicative cost estimates related to M&E activities (see **Table X** below). The project's M&E Plan will be presented and finalized in the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

177. A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representation from the UNDP-GEF Regional Coordinating Unit, as well as UNDP-GEF (HQs) as appropriate. A fundamental objective of the Inception Workshop will be to assist the project team to understand and take ownership of the project's goal and objective, as well as finalize preparation of the project's first Annual Work Plan (AWP) and annual and quartely activity plans on the basis of the Strategic Results Framework. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the BWP with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. A gap analysis on the implementation of the ABS framework should also be conducted during project inception to confirm the scope of the project intervention.

178. A detailed schedule of project review meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Day-to-day monitoring of implementation progress will be the responsibility of the Project Manager based on the project's Biennial Work Plan, activity plansand its indicators. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at the Inception Workshop and included in the BWP. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

179. Measurement of impact indicators related to ABS targets will occur according to the schedules defined in the Inception Workshop. The measurement of these will be undertaken through subcontracts or retainers with relevant institutions. Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the Implementing Partner, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

180. Annual Monitoring will occur through the NSC Meetings (NSCM). This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to NSCMs at least two times a year. The first such meeting will be held within the first six months of the start of full implementation.

181. The Project Manager in consultations with UNDP-CO and UNDP-GEF RCU will prepare a UNDP/GEF PIR during the months of June-August. In addition, the Project Manager, in consultation with UNDP-CO will prepare an Annual Review Report (ARR) by the end of January and submit it to NSC members at least two weeks prior to the NSCM for review and comments. The ARR will be used as one of the basic documents for discussions in the NSCM. The Project Manager will present the ARR (and if needed the PIR) to the NSC, highlighting policy issues and recommendations for the decision of the NSCM participants. The Project Manager also informs the participants of any agreement reached by stakeholders during the PIR/ARR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. The NSC has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

182. The terminal NSCM is held in the last month of project operations. The Project Manager is responsible for preparing the Terminal Report and submitting it to UNDP-CO and UNDP-GEF RCU. It shall be prepared in draft at least two months in advance of the terminal NSCM in order to allow review, and will serve as the basis for discussions in the NSCM. The terminal meeting considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects.

183. UNDP Country Offices and UNDP-GEF RCU as appropriate, will conduct yearly visits to project sites based on an agreed upon schedule to be detailed in the project's Inception Report/Annual Work Plan to assess first hand project progress. Any other member of the National Steering Committee can also accompany.

Reporting

184. The Project Manager will be responsible for the preparation and submission of the following reports that form part of the monitoring process. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. An Annual Review Report (ARR) shall be prepared by the Project Manager and shared with the National Steering Committee. As minimum requirement, the ARR shall consist of the Atlas standard format for the Project Progress Report (PPR) covering the whole year with updated information for each element of the PPR as well as a summary of results achieved against pre-defined annual targets at the project level. The ARR should consist of the following sections: (i) project risks and issues; (ii) project progress against pre-defined indicators and targets and (iii) outcome performance. The Project Implementation Review (PIR) is an annual monitoring process mandated by the GEF. Once the project has been under implementation for a year (from the CEO approval date), a Project Implementation Report must be completed by the CO together with the project team. Quarterly progress reports: Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF RCU by the project team.

UNDP ATLAS Monitoring Reports: A Combined Delivery Report (CDR) summarizing all project expenditures, is mandatory and should be issued quarterly following the finalization of the quarterly progress reports. The following logs should be prepared: (i) The Issues Log is used to capture and track the status of all project issues throughout the implementation of the project. (ii) the Risk Log is maintained throughout the project to capture potential risks to the project and associated measures to manage risks; and (iii) the Lessons Learned Log is maintained throughout the project to capture insights and lessons based on good and bad experiences and behaviours. Project Terminal Report: During the last three months of the project the project team will prepare the Project Terminal Report. Periodic Thematic Reports: As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs.

External Evaluations

185. The project will be subjected to at least one independent external review and one evaluation: An independent Mid-Term Review will be undertaken at the mid-point of the project lifetime. The Mid-Term Review will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Furthermore, it will review and update the ESSP report. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term review will be decided after consultation between the parties to the project document. The ToR for this Mid-term review will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

186. An independent Final Evaluation will take place three months prior to the terminal National Steering Committee meeting, and will focus on the same issues as the mid-term review. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The ToR for this evaluation will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

Learning and Knowledge Sharing

187. The project will develop a communications strategy in the first year, which will be updated annually and implementation supported by a communications, education and awareness specialist. This will include capturing and disseminating lessons learned, for review at NSC meetings in order to inform the direction and management of the project, and shared with project stakeholders as appropriate. A project completion report will document the project's achievements and lessons learned at the end of the project. Results from the project will also be

disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums.

Branding and Visibility

188. Full compliance is required with UNDP's Branding Guidelines and guidance on the use of the UNDP logo. These can be accessed at http://web.undp.org/comtoolkit/reaching-the-outside-world/outside-world-core-concepts-visual.shtml. Full compliance is also required with the GEF Branding Guidelines and guidance on the use of the GEF logo. These can be accessed at http://www.thegef.org/gef/GEF_logo. The UNDP and GEF logos should be the same size. When both logs appear on a publication, the UNDP logo should be on the left top corner and the GEF logo on the right top corner. Further details are available from the UNDP-GEF team based in the region.

Audit Clause

189. The Government will provide the Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted according to UNDP financial regulations, rules and audit policies by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

Table 4. M&E Activities, Responsibilities, Budget and Time Frame

Type of M&E activity	**Responsible Parties**	**Budget US$** *Excluding project team staff time*	**Time frame**
Inception Workshop	Project Manager UNDP CO UNDP GEF	10,000	Within first three months of project start up
Inception Report	Project Team UNDP CO	None	Submit draft two weeks before the IW, finalize it immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Indicative cost: 15,000.	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance-measured annually	Oversight by Project Manager Project team	None	Annually prior to ARR/PIR and to the definition of annual work plans
ARR and PIR	Project Team UNDP-CO UNDP-GEF	None	Annually
Quarterly progress reports	Project team	None	Quarterly
CDRs	Project Manager	None	Quarterly
Issues Log	Project Manager UNDP CO Programme Staff	None	Quarterly

Risks Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Lessons Learned Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Mid-term Review, including ESSP review	Project team UNDP- CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. review team)	40,000	At the mid-point of project implementation.
Final Evaluation	Project team, UNDP-CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. evaluation team)	40,000	At the end of project implementation
Terminal Report	Project team UNDP-CO local consultant	0	At least one month before the end of the project
Lessons learned	Project team UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc)	5,000	Yearly
Audit	UNDP-CO Project team	10,000	Yearly
TOTAL indicative COST *Excluding project team staff time and UNDP staff and travel expenses*		US$ 120,000	

PART V: Legal Context

190. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Malaysia and the United Nations Development Programme, signed by the parties on 12 September 2012. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

191. The UNDP Resident Representative in Kuala Lumpur is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-EEG Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

a) Revision of, or addition to, any of the annexes to the Project Document;

b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;

c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and

d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF) AND GEF INCREMENT

PART I: Strategic Results Framework, SRF (formerly GEF Logical Framework) Analysis

Project Title: Developing and Implementing a National ABS Framework in Malaysia

Project's Development Goal: To contribute to the conservation and sustainable use of globally significant biodiversity in Malaysia

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
Objective: To strengthen the conservation and sustainable use of biological and genetic resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing under CBD	National ABS law, regulations and institutional framework in place which will enable Malaysia to accede to the Nagoya Protocol	No national law, regulations or operational institutional framework; state legislation on ABS only exists for Sabah and Sarawak	National law and implementing regulations on ABS come into force by end of project and are applied by national and state Competent Authorities.	National law and implementing regulations on ABS gazetted and national and state Competent Authorities appointed.	Risks: Target audiences for training, awareness raising and other capacity building activities are committed to participate in project activities. Potential delay in approval of ABS Law would delay the legal mandate for establishment of a national financial mechanism (Conservation Trust Fund) for reinvestment of ABS proceeds into conservation. Active ingredients investigated in pilot projects fail to show promise as prototypes preventing PIC processes to run to completion of ABS agreements or provide actual benefits for sharing. Assumption: Malaysia's federal and state governments are committed to
	Financial and funding mechanism(s) for the management of ABS monetary benefits	No mechanism exists	Financial and funding mechanism(s) established and operational for the reinvestment of proceeds from ABS agreements into conservation	Official government reports	

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
					the conservation and sustainable use of the country's biological resources and the introduction of a national framework for ABS.
Outcome 1: An operational national regulatory and institutional framework on ABS	**Outputs:** 1.1 National law and implementing regulations on ABS developed with stakeholder participation. 1.2 Institutional framework including national and state competent authorities and supporting measures established to enable implementation of the national ABS law at federal and state levels. 1.3 Financial and funding mechanisms established at federal and state levels to receive and reinvest proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components. 1.4 Supportive institutional framework for *sui generis* systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources in Sabah 1.5 Community protocols constitute the basis for clarifying PIC and MAT requirements between users and providers of traditional knowledge and biological resources. 1.6 Ethical code of conduct or guidelines for research on traditional knowledge and genetic resources 1.7 Consultation completed with all states and paper on accession to the Nagoya Protocol developed for Cabinet's approval.				

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
	National law and implementing regulations on ABS come into force	No national law; state legislation on ABS only exists for Sabah and Sarawak	National law and implementing regulations on ABS come into force by year 2	National law and implementing regulations on ABS gazetted.	Risks: Potential difficulties in adopting the national ABS regulatory framework by relevant stakeholders especially at the state level due to the federal-state constitutional structure. Potential delay in approval of ABS Law would delay the legal mandate for establishment of a national financial mechanism (Conservation Trust Fund) for reinvestment of ABS proceeds into conservation. Assumption: Federal and state government support exists for introduction of the national framework for ABS Key stakeholders, in particular, indigenous peoples involved willing to participate in this project
	National and State Competent Authorities identified and operational for full implementation of national law and regulations on ABS	No national competent authority; state competent authorities only exist for Sabah and Sarawak[38].	National and State Competent Authorities identified for all (13) States and operational for full implementation of national law and regulations on ABS by end of project	Official government records; national law and implementing regulations on ABS	
	Institutional framework for *sui generis* systems for protection of traditional knowledge and customary uses of biological resources developed under the auspices of SaBC and used to inform national framework development	No institutional framework for *sui generis* systems for protection of traditional knowledge and customary uses of biological resources exist for Malaysia	Supportive institutional framework for *sui generis* systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources developed forSabah State and used to inform national framework development.	Official government records (SaBC); Project reports	

[38] Sabah Biodiversity Centre; and Sarawak Biodiversity Centre and Sarawak Forestry Corporation.

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
	Financial and funding mechanism(s) established at federal and state levels to receive and reinvest proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components	No formal governmental financial mechanism exists for reinvesting proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components	Financial and funding mechanism(s) established at federal and state levels by end of Year 3 to receive and reinvest proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components	Official government records (NRE) Project reports	
Outcome 2. Strengthened national institutional and stakeholder capacity for implementation of the national ABS framework	**Outputs:** 2.1 Improved capacities of the state Competent Authorities (CA), National Competent Authority (NCA) and related agenciesthrough training of 100 staff on processing access applications, negotiating ABS agreements and monitoring and tracking to ensure compliance. 2.2 Training programme and modules on bio-prospecting and research procedures developed and made available to federal and state research institutions. 2.3 Mechanisms institutionalized to facilitate access to information and support compliance under the national law and the NP. 2.4 Campaign to raise awareness on the ABS law, CBD and Nagoya Protocol targeting researchers, local communities, and relevant industry. 2.5 Knowledge, attitudes and practices (KAP) assessment surveys targeting specific groups (e.g., researchers, local communities, and relevant industry) that may use or benefit from ABS transactions are carried out to assess enhanced awareness about national ABS law, the CBD and Nagoya Protocol.				
	Improved capacities of national and state competent authorities for ABS implementation as shown byan increase of at least 30% in thedraft ABS Capacity Development Scorecard	ABS Capacity Scorecard baselines[39]: NRE: 33% Sabah: 35% Sarawak: 31% Other states: 0% Other agencies:0%	ABS Capacity Scorecard targets: NRE: 75% Sabah: 75% Sarawak: 75% Other states: 30% Other agencies: 30%	Project reports on Capacity Scorecard	Risks: Potential delay in approval of national law on ABS constrains confirmation of target audiences for capacity building (national and state competent authorities) Institutional hosts of ABS-related databases agree to allow access through CHM website

[39] See **Annex 2** for scorecard baseline results

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
	Number of NCA, state and related agencies trained on ABS and bioprospecting related subjects to facilitate implementation of the national ABS framework. [40]	No staff have been trained	100 staff from the NCA, 13 state CAs and related agencies (see footnote) are trained	Project reports	operated by MNRE. Assumption: Target audiences for training, awareness raising and other capacity building activities are committed to participate in project activities
	Percentage of the population of researchers, local communities, and relevant industry targeted by the campaign is aware of the national law and CBD and NP provisions related to ABS and traditional knowledge (TK) among stakeholders including researchers, public, ILCs and industries [41]	0%	80%	-Results of structured interviews and /or questionnaires at start of awareness campaign (baseline) and repeated at project completion. -Documented expressions of support	
Outcome 3. Best practice ABS processes (three) are demonstrated recognizing the principles of biodiversity conservation, Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.	**Outputs:** 3.1 Demonstration project on the documentation of traditional knowledge associated with biological resources of Kensiu (Kedah) and Kintak (Perak) Orang Asli for the development of one prototype products for potential commercialization. 3.2 Demonstration project on the development of a pilot ABS agreement with Semai Orang Asli (Perak) for the development of one prototype nutraceutical /healthcare product for initial commercialization. 3.3 Demonstration project on the utilization of genetic resources associated with TK for the development of health and personal care products in Sarawak 3.4 Best practice pilot ABS agreement and PIC processes in Malaysia are made available to regional audiences. 3.5 Awareness raising activities are integrated into pilot projects to increase understanding of the values of biological resources under the stewardship of participating IL Cs.				
	Number of ABS pilot agreements negotiated for initial commercialization of prototypes with fair and equitable benefit sharing provisions	No ABS agreements in Malaysia that fully comply with CBD requirements	At least 2 ABS pilot agreements negotiated for initial commercialization of prototypes with fair and equitable benefit sharing provisions	Project reports; ABS agreements	Risks: Commercial confidentiality restrictions may limit information sharing on development process?

[40] Potentially staff in MOSTI in charge of public research grants, university staff in charge of research grant administration, product approval under MOH and MyIPO

[41] See **Annex 3** for methodology.

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
	Number of PIC processes[42] with ILCs implemented in accordance with the planned PIC/community protocol	Some developmental work in Sabah and Sarawak on PIC processes	At least 3 PIC processes with ILCs implemented in accordance with the planned PIC/community protocol	Project reports;	Active ingredients investigated in pilot projects fail to show promise as prototypes preventing PIC processes to run to completion of ABS agreements or provide actual benefits for sharing. Assumption: Key stakeholders involved in bio-prospecting for specific products are willing to participate in this project
	Number of best practice pilot ABS agreements and PIC processes disseminated at regional level	Malaysia participates in UNEP-GEF ASEAN ABS project, but has limited experience to contribute to date	Best practice pilot ABS agreements and PIC processes presented at international workshop for ASEAN countries in Year 4, published in workshop proceedings and made available through NRE website	Project reports; workshop proceedings; press releases.	

[42] These would be the processes leading up to the signing of ABS pilot agreements above.

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
	Number of ABS agreements arising from the pilot projects that specify conservation measures to ensure the security of the concerned biological resources	No ABS agreements in Malaysia that fully comply with CBD requirements or include specified conservation measures for related biological resources	At least 2 ABS pilot agreements negotiated that, when necessary, include *in situ* and/or *ex situ* conservation measures to ensure the security of the concerned biological resources	Project reports; ABS agreements	
	At least 80% of the population of ILCs participating in the pilot projects are aware of the existence, use and option values of the biological resources under their stewardship.	0%	80%	-Results of structured interviews and /or questionnaires at start of awareness activities in pilot projects (baseline) and repeated at project completion. -Documented expressions of support	

192. A detailed activity list and a chronogram of activities per output is under development and will be finalised upon project inception.

Part II: Incremental Cost Analysis

193. **Baseline trends:** the Government of Malaysia has identified the introduction of a national ABS framework consistent with the CBD's provisions as a priority and is investing significantly in efforts to develop the national biotechnology industry and the documentation and protection of traditional knowledge. There are ongoing investments from Malaysian government bodies and the commercial sector in bio-prospecting. However, while these activities are consistent with the requirements of existing legislation, there remain weaknesses in the current legal and regulatory framework that do not require that PIC processes and ABS agreements involving the equitable sharing of benefits will fully implement the provisions of the CBD and the Nagoya Protocol. Even without the project Malaysia would still work towards the implementation of its obligation under Article 15 of the CBD but the degree of success to achieving the ABS objectives of the CBD would be limited. Therefore, ILCs in particular may not gain from bio-prospecting, although their land and traditional knowledge may be utilized. The Government of Malaysia therefore aims to ensure that all parties, including the federal and state governments and ILCs stand to benefit through the fair and equitable distribution of benefits from bio-prospecting through this project. Efforts to date have been inadequate to remove the existing barriers to the introduction of an effective national ABS regime that will contribute towards biodiversity conservation and encourage sustainable use of biological resources, therefore the threats of ecosystem degradation, deforestation and land conversion remain, forgoing the opportunity of future bio-discovery options.

194. Without GEF investment in the proposed project, acceptance of the national ABS Bill by all states will be difficult to obtain or at least is likely to drag on, delaying its approval and the implementation of the national ABS regime as we are evidencing now. It is also likely that accession to the Nagoya Protocol will be hindered, which will be more difficult to resolve without project support. The lack of technical expert input towards the development of implementing regulations will affect their completion and quality and supporting information sharing mechanisms and guidance materials may not be available. The absence of a national financial and funding mechanism to receive monetary benefits from ABS agreements and to reinvest these weakens national potential for the sustainable financing of biodiversity conservation. Inter-agency and inter-state coordination for biotechnology development will remain weak, resulting in potential conflicts and confusion which may adversely affect investors.

195. Lack of capacity has been identified as a key constraint for the introduction of a national ABS regime across a wide range of stakeholders and at all levels – national, state, local / community and sectoral. Resources will not be available to support the level of capacity building needed to bring the NCA, state CAs, checkpoint authorities and other stakeholders to implementation readiness in the short term, and local experience and information-sharing on the development of PIC, MAT and benefit-sharing will remain inadequate. Bio-prospecting and use of traditional knowledge resources will continue to be weakly regulated, therefore ILCs across the country at risk of losing out on the benefits associated with bio-prospectingand there will be little incentive for improving the security of biological resources at local level. It is highly possible that biopiracy will be rampant without the GEF intervention to strengthen the existing regulatory system. Without uniform and streamlined access rules, fees and conditions, states within Malaysia which have similar biodiversity are more likely to fight against each other

causing downward-spiral competition. Overall, the constituency and financial resources for biodiversity conservation will not advance beyond baseline levels.

196. Levels of awareness among decision makers, sectoral agencies, the commercial sector and ILCs amongst others concerning the potential benefits of an effective ABS regime will continue to remain low. At the national level, there is little understanding of ABS issues among sectors other than those directly involved in the conservation and development of biological resources, and even then there is a need to ensure consistency in the vision and rationale behind ABS, given the emergence of relevant initiatives on Intellectual Property Rights (WIPO) and agricultural / plant genetic resources linked to other global instruments (ITPGRFA).

197. Existing agreements for bio-prospecting partnership activities have not had to comply with CBD / Nagoya Protocol provisions for PIC and mutually agreed terms (MAT) in the absence of a national law to implement these provisions (only the state laws in Sabah and Sarawak, even then Sabah's law has yet to be enforced). Therefore, while such bio-prospecting is regulated, it may not necessarily take account of the PIC, rights and needs of ILCs and other stakeholders, or include any requirement for the equitable sharing of benefits. There is therefore a strong need for model examples of the consultative processes involved in development of ABS agreements, including PIC and MAT. Further, it is important that all players are able to understand the provisions and implications of such agreements, the sometimes complex issues involved, and ability to negotiate future benefit sharing in the event that commercial products are derived from the process.

198. **Global Environmental Objective**: The project intervention will achieve incremental global environmental benefits by directly addressing the GEF 5 BD4 Focal Area objective – Build capacity on access to genetic resources and benefit sharing, by contributing directly towards Outcome 4.1 Legal and regulatory frameworks, and administrative procedures established that enable access to genetic resources and benefit sharing in accordance with the CBD provisions and Output 4.1 Access and benefit-sharing agreements (number) that recognize the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits. The project will establish the national legal and regulatory framework for ABS, build capacity for its implementation through a range of training, awareness and supportive information management and guidance outputs, and demonstrate best practice ABS processes (3) recognizing the principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.

199. The project will achieve global environmental benefits through enhanced national contribution towards the achievement of the three objectives of the CBD (especially Objective 3 on ABS) and of the goals of its Strategic Plan. Specifically, the project will contribute towards reduced rates of biodiversity loss in Malaysia through the following mechanisms:

- Increasing awareness of the existence, use and option values of biological resources among key audiences;
- Enabling greater economic benefits to the government and other stakeholders from genetic resources through the biotechnology industry, thereby providing incentives for biodiversity conservation;

- Providing communities that are holders of genetic resources and associated traditional knowledge with livelihood options that result in economic benefits, thereby reducing pressures for unsustainable use and conversion of ecosystems;
- Contributing to national development strategies and economic growth, reducing poverty and poverty-associated threats to ecosystem integrity; and
- Contributing towards the maintenance of global ecosystem services, including avoided GHG emissions resulting from forest conversion.

200. **Alternative scenario enabled by the GEF:** The project complements baseline programmes and projects by supporting the development of the national ABS framework, addressing this at a whole country level and putting in place supporting capacity to enable effective implementation. This will enable the rapid completion of national ABS legislation, preparation and approval of implementing regulations, identification of NCA and state CAs, and the processes and machinery required for full implementation of the ABS regime in line with CBD and Nagoya Protocol requirements. It will also break new ground in developing a *sui generis* framework focusing on the use of community protocols for traditional knowledge and genetic resources, demonstrated in Sabah. Considering the constitutional structure that the subject of forests and land are under the jurisdiction of the State governments, this project will enhance the communication and cooperation between these agencies through outputs identified above. Intensive awareness raising and capacity building efforts will ensure that all concerned stakeholders understand the principles behind the ABS regime, the requirements for its implementation, and the potential benefits that can be realized to different parties. The project will also facilitate the reinvestment of benefits from ABS agreements back into biodiversity conservation and supporting ILCs through official mechanisms. The NCA, state CAs, checkpoint authorities and other stakeholders will be brought rapidly to implementation readiness, and through the pilot projects, the inclusion of appropriate PIC, MAT and ABS agreements in bio-prospecting and product development processes will be demonstrated, and community protocols for use of ILC traditional knowledge developed. *The result*s and lessons learned *from the project* will also be shared andcontribute to global best practices on ABS besides helping other countries (in particular ASEAN countries) to develop and implement suitable ABS and conservation frameworks and providing necessary methods and modalities in developing ABS agreements in other countries. These in turn can also provide useful guidance to the ongoing regional and global processes related to ABS. As a result, the project will ensure that the country, states and ILCS all stand to gain from the further development of Malaysia's biotechnology industry, including its participation in international projects and foreign investment.

201. **System Boundary:**This Project aims to strengthen the conservation and sustainable use of biological resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing under CBD, including raising national capacity to the stage of implementation-readiness. Geographically it covers the entire territory of Malaysia, including Peninsular Malaysia and the East Malaysian states of Sabah and Sarawak on the island of Borneo, as well as marine resources. The demonstration pilot project activities on ABS agreements in Component 3 are more localized, focusing on specific ILCs in Kedah, Perak and Sarawak states; and the demonstration project on community protocols in Component 1 focuses on a specific ILC in Sabah. Baseline and incremental costs have been assessed over the four year life span of the project.

202. **Summary of Costs:** The Baseline associated with this project is estimated at US$252 million. The GEF Alternative has been costed at US$ 259.97 million. The total Incremental Cost to implement the full project is US$ 7.97 million. Of this amount, $1.97 million is requested from GEF. GEF funds have leveraged US$ 6.0 million in co-financing for the Alternative strategy. Costs have been estimated for four years, the duration of the planned project Alternative. These costs are summarized below in the incremental costs matrix.

Table 5. Incremental Cost Matrix

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
BENEFITS			
Global benefits	Weaknesses exist in the incomplete legal and regulatory framework that does not require PIC, MAT, or ABS agreements involving equitable sharing of benefits. There is inadequate awareness and institutional capacity to implement a national ABS regime. Overall, the constituency and financial resources for biodiversity conservation will not advance beyond current baseline levels. Lack of value attached to biodiversity rich ecosystems on state land inside and outside the PA system is leading to its rapid degradation and conversion for other land uses. This forgoes future use options for genetic resource conservation.	The project aims to establish a national law and implementing regulations on ABS, and the institutional framework and supporting measures for their implementation. A *sui generis* framework will be developed and demonstrated for the protection of traditional knowledge focusing on PIC requirements. This national ABS framework will lead towards accession to the Nagoya Protocol. Strategic awareness raising and capacity building will be conducted for target groups and a financial mechanism established to receive proceeds from ABS agreements for re-investment in biodiversity conservation. Demonstrated development of pilot ABS agreements exemplify practical implementation, with attention to the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits with ILCs and other stakeholders, combined with capacity building and awareness raising to enhance understanding of the value of biological resources and measures for their improved security	The introduction of an effective national ABS regime will contribute towards biodiversity conservation and encourage sustainable use of globally significant genetic resources. Increased awareness of the existence, use and option values of biological resources among key audiences. Contributions towards the maintenance of global ecosystem services, including avoided GHG emissions resulting from forest conversion.
National and local benefits	Bio-prospecting and use of traditional knowledge resources will continue to be weakly regulated and ILCs across the country at risk of losing out on national benefits associated with bio-prospecting, and biopiracy – related losses.	The project will strengthen regulation of bioprospecting activities through the establishment of the national ABS framework, provision of training to NCA, CAs and checkpoint agencies on issues such as permitting processes, and develop supporting information management including monitoring and tracking systems for permits to monitor activities. Demonstration of community protocols	Greater economic benefits to the government and other stakeholders from genetic resources enabled through the biotechnology industry, thereby providing incentives for biodiversity conservation; Communities that are holders of genetic resources and associated traditional knowledge are

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
	Inadequately regulated bio-prospecting may not take account of the PIC, rights and needs of ILCs and other stakeholders, or include any requirement for the equitable sharing of benefits or the capacity to subsequently monitor compliance with any such benefit sharing agreement. Loss of TK, and absence of incentives for sustainable land use will result in continued loss and degradation of biological resources.	and *sui generis* approaches to the protection of traditional knowledge, as well as PIC processes leading to ABS agreements and the fair and equitable sharing of benefits will ensure full involvement of ILCs.	provided with livelihood options that result in economic benefits, thereby reducing pressures for unsustainable use and conversion of ecosystems; TK is protected; National development strategies and economic growth are supported, reducing poverty and poverty-associated threats to ecosystem integrity.
COSTS			
Outcome 1: An operational national regulatory and institutional framework on ABS	**Baseline:** **$10,000,000**	**Alternative:** **$11782,900**	GEF: $377,900 COF: $1,405,000 **TOTAL** **$1,782,900**
Outcome 2: Strengthened national institutional and stakeholder capacity for implementation of the national ABS framework	**Baseline:** **$2,000,000**	**Alternative:** **$3,670,600**	GEF $470,600 COF: $1,200,000 **TOTAL** **$1,670,600**
Outcome 3: Best practice ABS processes (three) are demonstrated recognizing the principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.	**Baseline:** **$240,000,000**	**Alternative:** **$243,278,500**	GEF $950,500 COF: $2,328,000 **TOTAL** **$3,278,500**

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
Project Management			GEF $171,000 COF: $900,000 TOTAL $1,071,000 Agency Fees 187,150
TOTAL COSTS	**Baseline: $252,000,000**	**Alternative: $259,990,150**	**TOTAL $7,990,150**

SECTION III: Total Budget and Workplan

Short Title: National ABS Framework Malaysia

Award ID: 00074369

Project ID: 00086812

Business Unit: MYS10

Project Title: Developing and Implementing a National Access and Benefit Sharing Framework

PIMS#: 5191

Implementing Partners: Ministry of Natural Resources and Environment (NRE), Forest Research Institute of Malaysia (FRIM), Centre of Excellence Biodiversity Law (CEBLAW), Sabah Biodiversity Centre (SaBC), Sarawak Biodiversity Centre (SBC)

GEF Outcome/ Atlas Activity	Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Acct Code	Atlas Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	Budget Note
COMPONENT 1: Legal and Institutional Framework	NRE	62000	GEF	71300	Local Consultants	13,200	13,200			**26,400**	1
				71600	Travel	4,000	6,000	6,000	4,000	**20,000**	2
				72100	Contractual Services - Company	94,000	118,500	83,000	10,000	**305,500**	3
				74200	Audio-visual and printing production costs	2,000	5,000	6,000	7,000	**20,000**	4
				74500	Miscellaneous	2,000	2,000	1,000	1,000	**6,000**	5
					Total	**115,200**	**144,700**	**96,000**	**22,000**	**377,900**	
COMPONENT 2: Capacity Building	NRE	62000	GEF	71200	International Consultants		22,000			**22,000**	6
				71300	Local Consultants		6,600	6,600		**13,200**	7
				71600	Travel	3,000	6,000	6,000	5,000	**20,000**	8
				72100	Contractual Services - Company	55,000	95,000	115,000	105,000	**370,000**	9
				72200	Equipment	10,000	10,000			**20,000**	10

				74200	Audio-visual and printing production costs	2,000	6,000	6,000	6,000	**20,000**	11
				74500	Miscellaneous	1,000	1,400	1,500	1,500	**5,400**	12
					Total	**71,000**	**147,000**	**135,100**	**117,500**	**470,600**	
COMPONENT 3: Pilot ABS Agreements	NRE	62000	GEF	71600	Travel	4,000	6,000	5,000	5,000	**20,000**	13
				72100	Contractual Services - Company	253,500	328,000	272,500	50,500	**904,500**	14
				74200	Audio-visual and printing production costs				10,000	**10,000**	15
				74500	Miscellaneous	1,000	2,000	2,000	1,000	**6,000**	16
				75700	Training, conferences				10,000	**10,000**	17
					Total	**258,500**	**336,000**	**279,500**	**76,500**	**950,500**	
PROJECT MANAGEMENT	NRE	62000	GEF	71300	Local Consultants	44,200	49,400	54,600	0	**148,200**	18
				71600	Travel	3,000	4,000	3,500	0	**10,500**	19
				72200	Equipment	5,000	0	0	0	**5,000**	20
				74500	UNDP cost recovery charge	1,500	2,042	800	520	**4,862**	21
				74500	Miscellaneous	500	900	800	238	**2,438**	22
					Total	**54,200**	**56,342**	**59,700**	**758**	**171,000**	23
TOTAL PROJECT						**498,900**	**684,042**	**570,300**	**216,758**	**1,970,000**	

Summary of Funds					
Source	Year 1	Year 2	Year 3	Year 4	**Total**
GEF	498,900	684,042	570,300	216,758	1,970,000
Government	1,559,200	1,519,200	1,574,100	1,147,500	5,800,000
UNDP	8,000	8,000	8,000	9,000	33,000
Total	2,066,100	2,211,242	2,152,400	1,373,258	7,803,000

Budget Notes	
Component 1	
1	National Consultant on Government Financing (USD 2200/week x 12 weeks spread over Years One and Two)
2	Estimated travel for project staff and consultants including international and domestic airfare and subsistence allowance
3A	CEBLAW: Output 1.1: (1) Consultations with States and agencies to finalize list of CAs; (2) Stakeholder consultations on draft regulations; (3) Fine-tuning the draft national ABS Bill and draft regulation; (4) Briefing and inputs from NRE's top management on status of the draft national ABS Bill; (5) legal drafting work; (6) briefing MPs on the draft Bill. Output 1.2 (1) Develop guidelines on rules and procedures for regulators; (2) develop guidelines on roles and responsibilities of NCA and CAs; (3) Streamline and clarify admin systems such as permits for access, application forms, fees, etc.; (4) Consultations and establishment of checkpoints. Output 1.5: National consultations and drafting national community protocols; Output 1.6: National consultations, drafting national guidelines for ethical conduct of research on TK. (total USD181,000)

				74200	Audio-visual and printing production costs	2,000	6,000	6,000	6,000	**20,000**	11
				74500	Miscellaneous	1,000	1,400	1,500	1,500	**5,400**	12
					Total	**71,000**	**147,000**	**135,100**	**117,500**	**470,600**	
COMPONENT 3: Pilot ABS Agreements	NRE	62000	GEF	71600	Travel	4,000	6,000	5,000	5,000	**20,000**	13
				72100	Contractual Services - Company	253,500	328,000	272,500	50,500	**904,500**	14
				74200	Audio-visual and printing production costs				10,000	**10,000**	15
				74500	Miscellaneous	1,000	2,000	2,000	1,000	**6,000**	16
				75700	Training, conferences				10,000	**10,000**	17
					Total	**258,500**	**336,000**	**279,500**	**76,500**	**950,500**	
PROJECT MANAGEMENT	NRE	62000	GEF	71300	Local Consultants	44,200	49,400	54,600	0	**148,200**	18
				71600	Travel	3,000	4,000	3,500	0	**10,500**	19
				72200	Equipment	5,000	0	0	0	**5,000**	20
				74500	UNDP cost recovery charge	1,500	2,042	800	520	**4,862**	21
				74500	Miscellaneous	500	900	800	238	**2,438**	22
					Total	**54,200**	**56,342**	**59,700**	**758**	**171,000**	23
TOTAL PROJECT						**498,900**	**684,042**	**570,300**	**216,758**	**1,970,000**	

Summary of Funds					
Source	Year 1	Year 2	Year 3	Year 4	**Total**
GEF	498,900	684,042	570,300	216,758	1,970,000
Government	1,559,200	1,519,200	1,574,100	1,147,500	5,800,000
UNDP	8,000	8,000	8,000	9,000	33,000
Total	2,066,100	2,211,242	2,152,400	1,373,258	7,803,000

Budget Notes	
Component 1	
1	National Consultant on Government Financing (USD 2200/week x 12 weeks spread over Years One and Two)
2	Estimated travel for project staff and consultants including international and domestic airfare and subsistence allowance
3A	CEBLAW: Output 1.1: (1) Consultations with States and agencies to finalize list of CAs; (2) Stakeholder consultations on draft regulations; (3) Fine-tuning the draft national ABS Bill and draft regulation; (4) Briefing and inputs from NRE's top management on status of the draft national ABS Bill; (5) legal drafting work; (6) briefing MPs on the draft Bill. Output 1.2 (1) Develop guidelines on rules and procedures for regulators; (2) develop guidelines on roles and responsibilities of NCA and CAs; (3) Streamline and clarify admin systems such as permits for access, application forms, fees, etc.; (4) Consultations and establishment of checkpoints. Output 1.5: National consultations and drafting national community protocols; Output 1.6: National consultations, drafting national guidelines for ethical conduct of research on TK. (total USD181,000)

3B	Sabah Biodiversity Centre: implementation of pilot project on using Community Protocols to develop generic approaches to ABS. Costs include: international consultants, national consultants, travel, awareness & capacity building, multi-stakeholder exchanges and dialogues, activities for developing a supportive institutional framework, equipment, AV & printing, office costs and administration , monitoring and evaluation (total USD 124,500)
4	Translation, editing, design and printing of documents (including national guidelines for rules and procedures for regulators; guidelines on roles and responsibilities of NCA and Cas; national model community protocols; national guidelines for ethical conduct of research on TK, etc)
5	Contingency for possible exchange rate fluctuations and miscellaneous costs associated with organizing specialized meetings associated with the development of the national ABS law, regulations and institutional framework (venues, catering, facilitation, interpretation etc.).
Component 2	
6	International Consultant on Monitoring and Tracking Systems for Bioprospecting (USD2750 / week x 8 weeks);
7	National consultant on database and website design (USD1650 / week x 8 weeks);
8	Estimated travel for project staff and consultants, including extensive training activities in Peninsular and East Malaysia under Output 2.1
9A	Training Provider Subcontract: Output 2.1: 3 training courses on: ABS rules and procedures, including granting of permits; assessment of applications, etc; granting of PIC by ILCs; MAT and ABS agreements; 3 training courses (legal) on interpreting ABS provisions under the national ABS Act; the Nagoya Protocol, the CBD and their interface with other international instruments and fora; 3 training courses to improve negotiating skills among resource and TK providers; 3 training courses on monitoring ABS agreements and access activities. (USD100,000); Output 2.2: (1) Establishment of institutional basis and contractual arrangements for training provision, including potential long term involvement; (2) Development of training programme and modules , including: Interpreting ABS provisions under the proposed Act; the NP, the CBD and their interface with other international instruments and fora; negotiating skills and strategies; PIC, MAT and ABS agreements; Training of trainers (USD50,000; total USD150,000).
9B	CEBLAW: Output 2.1: (1) Guidelines on MAT and benefit sharing to assist regulators in negotiating ABS agreements and to understand and apply requirements for the fair and equitable sharing of benefits. Review of international best practices in benefit sharing by examining existing ABS agreements, laws and other practices; (2) Development of model ABS agreements, taking into account pilot activities in Outcome 3. Training activities would be implemented by a contracted training provider together with CEBLAW (see training provider activities). (USD50,000) Output 2.2: the following activities will be undertaken by a contracted training provider, together with CEBLAW: Establishment of institutional basis and contractual arrangements for training provision, including potential long term involvement; development of training programme and modules , including: Interpreting ABS provisions under the proposed Act; the NP, the CBD and their interface with other international instruments and fora; negotiating skills and strategies; PIC, MAT and ABS agreements; National coordination mechanism between NCA, CAs, MOH, MOSTI, MyIPO (potential checkpoints); and training of trainers to conduct training courses. (USD50,000): Output 2.4: Development of the Users' guide of rules and procedures for users and providers of biological resources USD20,000 (USD20,000); total USD120,000)
9C	Awareness Programme Subcontract: Output 2.4: The following activities will be undertaken by a contracted organization under NRE supervision, with technical support from CEBLAW, FRIM and other agencies as necessary: (1) Development of awareness raising material on ABS provisions under the proposed Act, relevant tools, methods and outreach materials to enhance understanding of ABS issues and responsibilities of various stakeholders. These materials will be in English and/or national language and if possible and relevant, local languages; USD20,000 (2) Awareness raising activities targeting the researchers and industries; public and NGOs; and ILCs on ABS issues and national obligations under the proposed Act USD20,000 (3) Training of ILCs in Peninsular States (including possibly Sabah and Sarawak, with support from SaBC and SBC respectively) for safeguarding their traditional knowledge, on the national ABS law, implementation procedures and ABS issues. USD25,000 Total USD 65,000.

9D	Awareness Assessment Subcontract: Output 2.5: As part of the project's monitoring and evaluation system, knowledge, attitudes and practices (KAP) assessment surveys will be conducted targeting specific groups (ILCs, researchers and relevant industries) that may use or benefit from ABS transactions to determine the project's impact on awareness levels. These would include baseline surveys at the startup of the awareness raising activities for specific target groups, and repeat surveys following the same methodologies at project completion. This work will be contracted to a service provider, with requirements to liaise closely with the project's implementing partners in the design and implementation of activities. The methodological approach is outlined in Annex X. ($5,000 to develop methodology; $15,000 for baseline assessments, analysis and reporting (Y1); $15,000 for final assessments, analysis and reporting (Y4); total $35,000).
10	Training equipment - laptop computer and LCD projector, screen, other classroom equipment
11	Training materials in support of the training courses to be delivered
12	Contingency for possible exchange rate fluctuations and miscellaneous costs associated with organizing meetings related to capacity building activities (venues, catering, facilitation, interpretation etc.).
Component 3	
13	Estimated travel for project staff related to pilot projects and information dissemination activities, including domestic airfare and subsistence allowance
14A	Subcontract to FRIM for implementation of pilot project for development of a prototype ready for commercialization, including PIC and ABS agreements. Costs include: national consultants ($45,000), travel ($19500), training ($9000), AV & printing ($6,000), office costs ($14,000), lab costs for prototype development ($90,000) (total: $183,500)
14B	Subcontract to FRIM for implementation of pilot project for development of prototype through initial collection, screening and testing including PIC agreements for communities in 2 states. Costs include: national consultants ($87,000), travel ($43,000), training ($9000), AV & printing ($10,000), office costs ($16,000), awareness activities ($14,000), development of PIC agreements ($13,000), enumerator fees ($3,000), prototype development ($100,000), Lab analysis ($30,000), IPR related exercise ($25,000) (total $350,00)
14C	Subcontract to Sarawak Biodiversity Centre for implementation of pilot project, including international consultants ($30,000), national consultants ($76,000), equipment and supplies ($84,000), travel ($42,000), meetings & trainings ($12,000), printing, admin etc ($7,000). Total $251,000.
14D	Monitoring and evaluation costs (see Table 4 of CEO Endorsement and Prodoc Part IV for details), including: Contracted services for Mid term review and Terminal Evaluations including: International Project Evaluators, National Project Evaluators and associated travel for evaluators (total $80,000); specific studies and monitoring associated with MoV for project indicators ($15,000); annual project audit ($10,000); Production, translation and printing of a project completion report in popular full colour format, documenting key project achievements, best practices and lessons learned ($5,000); costs associated with inception meeting planning and reporting ($10,000)
15	Printing costs for final reports and case studies arising from demonstration projects ($10,000)
16	Contingency for possible exchange rate fluctuations and miscellaneous costs associated with organizing meetings related to pilot projects and information sharing activities (venues, catering, facilitation, interpretation etc.).
17	Organization of side event at CBD COP to present results of project, especially demonstration pilot projects ($10,000)
Project Management Costs	

18	Project management supports Project Assistant (US$275/w in Y1; $325/w in Y2; $375/w in Y3) Total $50700. Project Manager (US$575/w in Y1, $625/w in Y2, $675/w in Y3). Total $97500. Combined total $148200.
19	Travel associated with project management
20	Office equipment for Project management unit, including computers (2), printer (1), fax (1), digital camera (1), IT accessories, etc.
21	Estimated UNDP Direct Project Service/Cost recovery charges for international and national consultant recruitment services requested by the NRE to UNDP for executing services as indicated in the Agreement in Annex 5 of the Project Document. The cost (Total USD 4,862) includes: (i) recruitment and payroll management of project manager and assistant at USD 670 X 2 = USD 1,340); (ii) recruitment actions including payments at USD 260 X 12 = USD 3,120; (iii) Travel arrangement for international consultants USD 67 X 6 trips = USD 402. In accordance with GEF Council requirements, the costs of these services will be part of the executing entity's Project Management Cost allocation identified in the project budget. DPS costs would be charged at the end of each year based on the UNDP Universal Pricelist (UPL) or the actual corresponding service cost. The amounts here are estimations based on the services indicated, however as part of annual project operational planning the DPS to be requested during the calendar year would be defined and the amount included in the yearly project management budgets and would be charged based on actual services provided at the end of that year.
22	Contingency for possible exchange rate fluctuations and PCU operational communications costs (email, internet,telephones).
23	Note that all project management costs will be covered by NRE in Year 4.

SECTION IV: ADDITIONAL INFORMATION

PART I: Other agreements

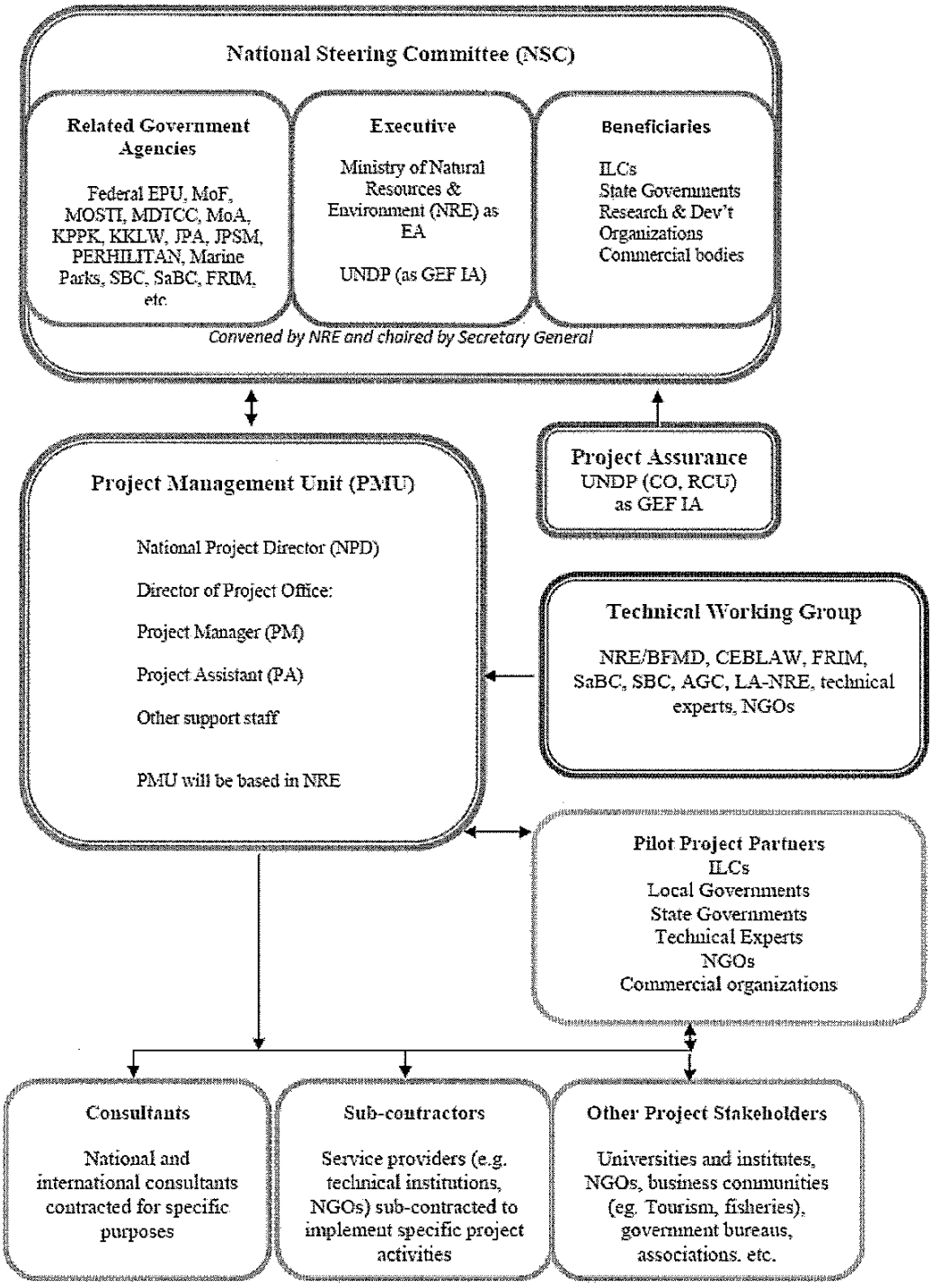
CO-FINANCING LETTERS

-- See separate files—

[filenames to add]

NRE
SaBC
SBC
FRIM
UNDP

PART II: Organigram of Project



PART III: Terms of Reference for key project staff

NATIONAL PROJECT DIRECTOR

Background

The National Project Director will be a staff member of the Government of Malaysia's national executing agency of this UNDP/GEF-supported project and in this case will be the Under Secretary of the Biodiversity and Forestry Management Division of the Ministry of Natural Resources and Environment. The NPD will be responsible for providing government oversight and guidance for project implementation, including the coordination of project activities among the main parties to the project: the Government NEA and executing partners, the Project Manager, consultants, and UNDP, including oversight of the Project Management Unit. This position will be co-financed by NRE.

Duties and Responsibilities

Specifically, the NPD works in close collaboration with the Project Manager, as well as UNDP and responsibilities include:

- Ensure that the project document and project revisions requiring Government's approval are processed smoothly through the Government NEA in accordance with established procedures;
- Prepare work plans in discussion with the Project Manager, UNDP and consultants;
- Mobilise national institutional mechanisms for the smooth progress of the project;
- Ensure the smooth and effective functioning of the NSC and TWG including NEA representation on these bodies;
- Review project progress and financial reports and other project outputs;
- Provide direction and guidance on project-related issues;
- Provide advice and guidance to the project team;
- Approve financial transactions.

PROJECT MANAGER

Background

The Project Manager (PM), will be a locally recruited national selected based on an open competitive process. He/She will be responsible for the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors.

The PM is accountable to the NRE and the NSC for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. The PM will report to the UNDP CO in close consultation with the NPD for all of the project's substantive and administrative issues. From the strategic point of view of the project, the PM will report on a periodic basis to the NationalSteering Committee (NSC). Generally, the PM will be responsible for meeting government obligations under the project, under the national execution modality (NEX). He/She will perform a liaison role with the Government, UNDP and other UN Agencies, NGOs and

project partners, and maintain close collaboration with other donor agencies providing co-financing.

Duration 4 years (final year co-financed by NRE), based at the Project Management Unit.

Duties and Responsibilities

- The PM will, with the support of the Project Assistant, manage the implementation of all project activities, including:
- Supervise and coordinate the production of project outputs, as per the project document;
- Mobilize all project inputs in accordance with UNDP procedures for nationally executed projects;
- Prepare technical specifications and TORs for contractors or subcontractors and ensure contractors' deliverables;
- Coordinate the recruitment and selection of project personnel including consultants and subcontractors for NSC approval;
- Supervise and coordinate the work of all project staff, consultants and sub-contractors;
- Prepare and revise project work and financial plans for NSC approval and allocate resources according to these documents;
- Coordinate and oversee implementation of the project's monitoring and evaluation plan;
- Liaise with UNDP, NRE, relevant government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities;
- Facilitate administrative backstopping to subcontractors and training activities supported by the Project;
- Oversee and ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, NRE and other oversight agencies;
- Disseminate project reports and respond to queries from concerned stakeholders;
- Coordinate secretarial services for the smooth operation of the NSC and TWG in close consultation with NRE and UNDP CO, including logistical arrangements for meetings, preparation of meeting agendas and recording and dissemination of meeting reports in a timely manner;
- Report on project implementation progress to the National Steering Committee and Technical Working Group, and ensure the fulfilment of NSC directives;
- Oversee the exchange and sharing of experiences and lessons learned with relevant integrated conservation and development projects nationally and internationally;
- Ensure the timely and effective implementation of all components of the project;
- Oversee implementation of the stakeholder participation plan and assist community groups, municipalities, NGOs, staff, students and others with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities;
- Oversee an up-to-date accounting system to ensure accuracy and reliability of financial reporting, and monitor project funds and resources;

- Oversee an effective record-keeping system for all project-related documents and information;
- Coordinate duty travel, seminars, public outreach activities and other project events;
- Coordinate, assist and monitorpartner scientific institutions with the initiation and implementation of all pilot projects and monitoring components of the project;
- Ensure that UNDP Environmental and Social Screening Procedure safeguards are applied to project implementation.

Qualifications, Skills and Experience

- Bachelor's degree or equivalent in Biodiversity/Environmental Science/Environmental Law/Natural Resources Management or a related discipline. Work experience in lieu of formal qualifications will also be considered;
- At least 5 years of relevant working experience and a solid understanding of biodiversity conservation,ideally including access and benefit-sharing (ABS) and traditional knowledge (TK) issues;
- Knowledgeable in CBD subject matters, ideally relating to ABS and TK;
- Understanding of political, institutional and environmental governance issues associated with biodiversity in Malaysia;
- At least 5 years of project/programme management experience and demonstrated ability to effectively coordinate a large, multi-stakeholder project; experience of managing international projects and familiarity with UNDP/GEF projects an advantage;
- Working experience with ministries, national or provincial institutions concerned with natural resource management and environmental protection is an advantage;
- Demonstrated ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project;
- Strong drafting, presentation and reporting skills;
- Strong computer skills, in particular mastery of all applications of the MS Office package and internet search;
- Excellent oral and written communication skills in Bahasa Malaysia and English are a requirement.

PROJECT ASSISTANT

Background

The Project Assistant will be locally recruited based on an open competitive process. He/she will be responsible for the overall administration of the project. The Project Assistant will report to the Project Manager. Generally, the Project Assistant will be responsible for supporting the Project Manager in meeting government obligations under the project, under the national execution modality (NEX).

Duration 4 years (final year co-financed by NRE), based at the Project Management Unit.

Duties and Responsibilities

- Collect, register and maintain all information on project activities;
- Contribute to the preparation and implementation of progress reports;

- Monitor project activities, budgets and financial expenditures;
- Advise all project counterparts on applicable administrative procedures and ensure their proper implementation;
- Maintain project correspondence and communication;
- Support the preparations of project work-plans and operational and financial planning processes;
- Assist in procurement and recruitment processes;
- Assist in the preparation of payments requests for operational expenses, salaries, insurance, etc. against project budgets and work plans;
- Follow-up on timely disbursements by UNDP CO;
- Receive, screen and distribute correspondence and attach necessary background information;
- Prepare routine correspondence and memoranda for Project Manager's signature;
- Assist in logistical organization of meetings, training and workshops;
- Prepare agendas and arrange field visits, appointments and meetings both internal and external related to the project activities and write minutes from the meetings;
- Maintain project filing system;
- Maintain records over project equipment inventory; and
- Perform other duties as required.

Qualifications

- A post-school qualification (college diploma, or equivalent);
- At least 5 years of administrative and/or financial management experience;
- Demonstrated ability to administer project budgets, and track financial expenditure;
- Demonstrated ability to maintain effective communications with different stakeholders, and arrange stakeholder meetings and/or workshops;
- Excellent computer skills, in particular mastery of all MS Office programmes;
- Excellent written communication skills; and
- A good working knowledge of English and Bahasa Malaysia.

OVERVIEW OF INPUTS FROM TECHNICAL ASSISTANCE CONSULTANTS

Table 6. Overview of Inputs from Technical Assistance Consultants

Consultant	$/ Person Week	Person Week	Tasks and Inputs
For Project Management / Monitoring & Evaluation			
Local / National contracting			
Project	625	156	The Project Manager is responsible for overall coordination of the project activities and timely and quality delivery of project outputs. The PM will, with the support of

Consultant	$/ Person Week	Person Week	Tasks and Inputs
Manager[43]			the Project Assistant, manage the implementation of all project activities, including: • Supervise and coordinate the production of project outputs, as per the project document; • Mobilize all project inputs in accordance with UNDP procedures for nationally executed projects; • Prepare technical specifications and TORs for contractors or subcontractors and ensure contractors' deliverables; • Coordinate the recruitment and selection of project personnel including consultants and subcontractors for NSC approval; • Supervise and coordinate the work of all project staff, consultants and sub-contractors; • Prepare and revise project work and financial plans for NSC approval and allocate resources according to these documents; • Coordinate and oversee implementation of the project's monitoring and evaluation plan; • Liaise with UNDP, NRE, relevant government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities; • Facilitate administrative backstopping to subcontractors and training activities supported by the Project; • Oversee and ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, NRE and other oversight agencies; • Disseminate project reports and respond to queries from concerned stakeholders; • Coordinate secretarial services for the smooth operation of the NSC and TWG in close consultation with NRE and UNDP CO, including logistical arrangements for meetings, preparation of meeting agendas and recording and dissemination of meeting reports in a timely manner; • Report on project implementation progress to the National Steering Committee and Technical Working Group, and ensure the fulfilment of NSC directives; • Oversee the exchange and sharing of experiences and lessons learned with relevant integrated conservation and development projects nationally and internationally; • Ensure the timely and effective implementation of all components of the project; • Oversee implementation of the stakeholder participation plan and assist community groups, municipalities, NGOs, staff, students and others with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities; • Oversee an up-to-date accounting system to ensure accuracy and reliability of financial reporting, and monitor project funds and resources; • Oversee an effective record-keeping system for all project-related documents and information; • Coordinate duty travel, seminars, public outreach activities and other project events; • Coordinate, assist and monitor partner scientific institutions with the initiation and implementation of all pilot projects and monitoring components of the project; • Ensure that UNDP Environmental and Social Screening Procedure safeguards are applied to project implementation.
Project	325	156	Project Assistant will be responsible for overall administration of the project. S/he

[43] Full time for three years; fourth year will be cofinanced by NRE.

Consultant	$/ Person Week	Person Week	Tasks and Inputs
Assistant[44]			will: • Collect, register and maintain all information on project activities; • Contribute to the preparation and implementation of progress reports; • Monitor project activities, budgets and financial expenditures; • Advise all project counterparts on applicable administrative procedures and ensure their proper implementation; • Maintain project correspondence and communication; • Support the preparations of project work-plans and operational and financial planning processes; • Assist in procurement and recruitment processes; • Assist in the preparation of payments requests for operational expenses, salaries, insurance, etc. against project budgets and work plans; • Follow-up on timely disbursements by UNDP CO; • Receive, screen and distribute correspondence and attach necessary background information; • Prepare routine correspondence and memoranda for Project Manager's signature; • Assist in logistical organization of meetings, training and workshops; • Prepare agendas and arrange field visits, appointments and meetings both internal and external related to the project activities and write minutes from the meetings; • Maintain project filing system; • Maintain records over project equipment inventory; and • Perform other duties as required.
For Technical Assistance			
Outcome 1			
Local / National contracting			
National Specialist on Government Financing	2200	12	**Output 1.3Financial and funding mechanisms established for ABS proceeds** Working closely with NRE and the Project Manager: • Conduct a feasibility study to review how such ABS financial and funding mechanisms have been designed in comparable situations in other countriesincluding the proposed Conservation Trust Fund in Malaysia which was developed by EPU with support from DANIDA, the legal, administrative and socio-economic context for introducing such a system in Malaysia, the legal and institutional measures required, and a comparative review of the advantages and constraints of different options for the introduction of such a mechanism in Malaysia for review by NRE and other key stakeholders. • Prepare a detailed design of the selected financial mechanism(s) to be established at state and federallevels for review by NRE and other key stakeholders. • Prepare a paper on the proposed financial mechanism(s) for NRE to present and seek approval by the relevant decision-making body for the establishment of such a mechanism(s).
Outcome 2			

[44] Full time for three years; fourth year will be cofinanced by NRE.

Consultant	$/ Person Week	Person Week	Tasks and Inputs
Local / National contracting			
National Specialist on Database and Website Design	1650	8	**Output 2.3 Mechanisms institutionalized to facilitate access to information** The following activities would be undertaken under NRE/FRIM supervision (note that FRIM hosts the CHM website). ▪ Strengthen the existing Malaysian Biological Diversity Clearing House Mechanism website to include a dedicated section on ABS – design layout, source content in cooperation with NRE/FRIM, train website host in updating procedures; ▪ Develop national databasesystem on access permits and ABS agreements – establish online secure database system in consultation with NRE, including developing structure of database, relational links, online functionality and training for agency staff on data inputting and other operations.
International / Regional and global contracting			
International Specialist on Monitoring and Tracking Systems for Bio-prospecting	2750	8	**Output 2.1 Improved capacities of CAs through training in ABS** The specialist will work closely with NRE, project staff and key stakeholders to: ▪ Develop monitoring and tracking measures in Patent System for genetic resources and associated traditional knowledge that have been accessed with or without access permits for research and development, and have been moved within or outside Malaysia (this is important to prevent biopiracy and ensure that benefit sharing is accrued as appropriate). ▪ Review and assess the ABS Patent Index (ABSPAT) as a potential monitoring tool. ▪ Provide the associated software installation and training inputs for NCA and CAs

PART IV: Stakeholder Involvement Plan

203. Project preparation included consultations with the project's key stakeholders at the national and state levels, and the agencies leading the demonstration projects carried out preparatory consultations with related stakeholders at local level, building on their earlier baseline activities. Workshops were convened at the national level in November 2012 and February 2013 at which the project was thoroughly discussed. In addition, bilateral meetings were held with the executing partners at national and state levels. Generally, project design was a highly participatory process, in line with UNDP's and GEF's requirements, and the project naturally builds on a significant participatory effort supported by UNDP which involved a very wide range of stakeholders at all levels and which resulted in the draft national ABS Bill. Gender issues were specifically considered, especially at the demonstration project (community) level.

204. The key stakeholders include federal government agencies concerned with the governance of ABS implementation (NRE and Federal Economic Planning Unit) and other bodies concerned with biotechnology development (including the MOSTI, MOA, MDTCC, and others); State Economic Planning Units and other responsible authorities for ABS implementation at state level (such as SaBC and SBC); ILC representatives and social and environmental NGOs involved in ABS issues; research institutions involved in bio-prospecting and related research (e.g. FRIM, universities); technical experts on biodiversity law (CEBLAW); and private sector organizations and businesses involved in developing biotechnology products.

205. Component 1 of the project will involve extensive national and state stakeholder engagement in the review, improvement and adoption of the proposed national law and implementing regulations on ABS, the institutional framework and supporting measures for their implementation, and the associated financial mechanism to receive proceeds from ABS agreements for re-investment in biodiversity conservation. The demonstration project on development of community protocols and development of a*sui generis* framework for the protection of traditional knowledge will be coordinated and executed by SaBC in collaboration with NGO Natural Justice and social enterprise Borneo Conservancy Initiative. The project will take place in Ulu Padas (Sipitang District) in south-western Sabah, focusing on the ethnic Lundayeh community, with a combined population of approximately 500 people, residing in the villages of Long Pasia and Long Mio. In addition, an ethical code of conduct or guidelines for research on traditional knowledge and genetic resources and the establishment of a supportive institutional framework will be developed in consultation with related research organizations and regulatory stakeholders.

206. Component 2 primarily aims to improve the capacities of the state Competent Authorities (CA), the National Competent Authority (NCA) and related agencies regarding the implementation of the ABS law and their obligations under the CBD, Nagoya Protocol and other related international treaties. The project will engage with these agencies (potentially staff in MOSTI in charge of public research grants, university staff in charge of research grant administration, product approval under MOH (Drug Control Authority) and MyIPO)need to be trained to understand the ABS rules and procedures, including granting of permits, assessment of access applications, core principles of PIC and MAT and their application, and rights and roles of ILCs; understand and keep abreast of negotiations at WIPO and FAO to ensure a coordinated national approach; negotiate ABS agreements; and monitor and track access. These will ensure better understanding of national and international provisions of ABS, and enhance the implementation of the proposed national ABS law at all levels.

207. The development of pilot ABS agreements in Component 3, with attention to the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits, will be conducted through three pilot projects, distributed across three states: Kedah and Perak in Peninsular Malaysia, and Sarawak in East Malaysia. Each pilot project will involve the documentation of traditional knowledge of indigenous and local communities, and contribute towards the understanding of associated issues such as the development of value chains and the participation of ILCs in the collection, documentation, preparation and sustainable production and conservation of biological resources. Women and men, young and old, will all play an active role in the implementation of the pilot projects at the community level, through involvement in TK documentation, collection of specimens, cultivation of selected plants and related processing activities. All the pilots involve significant awareness raising and capacity building activities which will benefit the participating ILCs.

208. The first pilot project to be implemented by FRIM concerns the documentation of traditional knowledge associated with biological resources of the Kensiu (Kedah state) and Kintak (Perak state) Orang Asli for the development of one prototype products for potential commercialization. While the second pilot under FRIM concerns the development of a pilot ABS

agreement with Semai Orang Asli (Perak state) for the development of a prototype nutraceutical[45] / healthcare product. A Technical Committee has been set up to monitor the progress and implementation of activities of the existing baseline project on "Documentation of traditional knowledge on medicinal and aromatic plants used by Orang Asli, Peninsular Malaysia" conducted by FRIM. Members of the Technical Committee include representatives from the Ministry of Natural Resources and Environment, JAKOA, 11 *Tok Batins* (Orang Asli headmen), and the TK research team. Decisions of the Technical Committee are based on consensus. With an additional two sub-ethnic groups of Orang Asli to be covered under this GEF project (the Semai are already represented), it is intended that the *Tok Batins* from those two sub-ethnics also sit on the Technical Committee. This is to ensure that they are in the mainstream together with other *Tok Batins*, as decisions made will definitely have implications for their respective communities.

209. In the Sarawak pilot project, three communities namely the Bidayuh, the Lun Bawang and the Kelabit communities from Kampung Kiding, Long Semadoh Area (Long Telingan and Long Kerebangan) and Bario Area (Pa'Ukat and Pa'Lungan) will be involved. The Bidayuh community from Kampung Kiding will be involved in distillation of raw materials and in product development for pre-commercialization. The Lun Bawang community will be involved in distillation of raw materials and in cultivation while the Kelabit community will be involved in cultivation and product development for pre-commercialization. At this pre-commercialisation stage, the communities involved will be receiving some monetary benefits from the supply of raw plant materials, and essential oil.

210. During project preparation, a preliminary stakeholder analysis was undertaken in order to identify key stakeholders, assess their interests in the project and define their roles and responsibilities in project implementation. **Table 6**below lists the key stakeholders associated with establishing a national ABS framework in Malaysia. A full Stakeholder Involvement Plan remains to be prepared upon project inception and this is already an identified activity.

Table 7. Roles and Responsibilities of Stakeholders in Project Implementation

Stakeholder	Roles and Responsibilities
Stakeholders with direct involvement	
Ministry of Natural Resources and Environment (NRE)	The national executing agency for the project. The agency also houses the GEF Operational Focal Point (OFP) and coordinates and implements GEF financed projects. Responsible for coordination of environmental issues including CBD implementation, and promulgation of the draft ABS legislation at Federal level.
Economic Planning Unit (EPU)	Responsible for formulating policies and strategies for socio-economic development and evaluating and recommending development programmes and projects. The Environment and Natural Resources Economics Section (ENRES)and International Cooperation Section would be involved.
State EPUs	Responsible for formulating policies and strategies for socio-economic development and evaluating and recommending development programmes and projects at state level.
Forest Research Institute Malaysia	Research institution covering a wide range of forest-related subjects. Involved

[45]**Nutraceuticals** are products derived from food sources that provide extra health benefits, in addition to the basic nutritional value found in foods. Depending on the jurisdiction, products may claim to prevent chronic diseases, improve health, delay the aging process, increase life expectancy, or support the structure or function of the body. Source: Nutraceuticals/Functional Foods and Health Claims on Foods.

(FRIM)	in the nature-based product discovery investigations and traditional knowledge documentation of Orang Asli (indigenous peoples of Peninsular Malaysia). FRIM is an official implementing partner and co-financier, and will provide technical inputs for project implementation including responsibility for executing demonstration activities in Peninsular Malaysia for the third component of the project. Member of project's Technical Working Group.
Sarawak Biodiversity Centre (SBC)	Research institution and ABS regulator in Sarawak involved in the nature-based product discovery investigations and traditional knowledge documentation of Orang Asal (indigenous peoples of Sarawak). SBC is an official implementing partner and co-financier and will provide technical inputs for project implementation including responsibility for executing demonstration activities in Sarawak under the third component of the project. Member of project's Technical Working Group.
Sabah Biodiversity Centre (SaBC)	ABS regulator in Sabah. Involved in traditional knowledge documentation of Orang Asal (indigenous peoples of Sabah). SaBC is an official implementing partner and co-financier, and will provide technical inputs for project implementation including responsibility for executing demonstration activities in Sabah under the third component of the project. Member of project's Technical Working Group.
Centre of Excellence for Biodiversity Law (CEBLAW)	Centre of excellence in biodiversity law, part of the national University of Malaya, is an official implementing partner and responsible for providing expertise in ABS laws and related issues and in executing the ABS law-related outputs of the project.
Department of Orang Asli Development (JAKOA)	Responsible for eradicating poverty among the Orang Asli, improving their health, promoting education, and improving their general livelihood. Could play a supportive role in the PIC process involving indigenous peoples.
Stakeholders with indirect involvement	
Malaysian Agricultural Research and Development Institute (MARDI)	Mandated to conduct research in agriculture, food and agro-based industries. MARDI's feedback to ABS implementation in cases involving genetic resources for food and agriculture is crucial.
Forestry Department Peninsula Malaysia (JPSM)	Responsible for forest lands and nature reserves conservation in Peninsular Malaysia. Potential Competent Authority responsible in granting access permits.
State forestry departments	Responsible for forest lands and nature reserves conservation at state level. Potential Competent Authorities responsible in granting access permits in respective state.
Ministry of Science, Technology and Innovation (MOSTI)	Responsible for steering the national biotechnology agenda pursuant to the National Biotechnology Policy 2005. BiotechCorp under MOSTI was established as the one-stop centre for biotechnology industry development in Malaysia and IPharm undertakes discovery, development and commercialization of pharmaceutical and nutraceutical products.
Ministry of Agriculture & Agro-Based Industry (MOA)	Responsible for legislating, planning and implementing agricultural development programs, policies and strategies; evaluating, coordinating and ensuring the implementation of agro-food agriculture development projects/programs and conducting R&D and innovation that enhance productivity and competitiveness in the agro-food sector. Their involvement is important to ensure that the ABS framework is implemented in a supportive manner with the other international instruments like the ITPGRFA.
Ministry of Plantation Industries and Commodities (KPPK)	Responsible for formulating policies and strategies for the overall development of the plantation and the commodity sectors; and supervising financial management and implementation of plantation and commodities development programmes. Their involvement is crucial to ensure the implementation of the ABS framework does not affect the normal trading of

	commodities.
Ministry of Health (MOH)	Responsible, among others, for reviewing research involving human subjects
Ministry of Rural and Regional Development (KKLW)	Responsible in rural development and improving the well being of rural residents.
Ministry of Domestic Trade, Cooperative and Consumerism (MDTCC)	Responsible for monitoring domestic trade, advocating and protecting consumers' rights, protection of intellectual properties as well as registration and governance of businesses.
Universities	Host research institutions/departments which are the resource users of biodiversity in Malaysia. Their involvement in related activities such as awareness events is important to create awareness for researchers within universities who are conducting research and development on biodiversity to ensure compliance with the ABS regulatory framework.
Indigenous and local communities (ILCs)	Partners in traditional knowledge documentation programmes. Their PIC must be sought for ABS agreements in the third component of the project.
Private sector organizations, businesses and research institutions	Biotechnology companies are key stakeholders as they are potential users of biological resources in Malaysia. Their involvement in related activities such as awareness events is important.
NGOs - national and international environmental NGOs (e.g. TWN, MENGO)	Important for consultation, feedback and awareness raising. Assist to monitor compliance with the ABS regulatory framework by resource users.
National indigenous peoples NGOs and indigenous peoples associations (e.g. COAC, PACOS, SADIA etc)	Important for technical support, consultation and feedback, training and monitoring. High capacity for grass roots action with indigenous and local communities. Provide useful insights and views relating to the reassertion of governance structures grounded in customary law and practices of indigenous peoples.

211. The project proposes a mechanism to achieve broad-based stakeholder involvement in the project preparation and implementation processes. Stakeholder participation will include the following three components (see **Table 7**), with membership of each to be finalized during the project inception phase:

- National Steering Committee (NSC)
- Technical Working Group (TWG)
- Project Management Unit (PMU)

Table 8. Suggested members of NSC, PMU and Site Stakeholder Committees:

National Steering Committee (NSC), UNDP to attend project meetings	Technical Working Group (TWG)	Project Management Unit (PMU)
NRE - Secretary General (Chair), Federal Economic Planning Unit (EPU), Public Service Department, Ministry of Science, Technology and Industry (MOSTI), Ministry of Agriculture and Agro-Based (MoA), Ministry of Plantation Industries and Commodities (KPPK), Ministry of Finance	NRE – National Project Director (Chair), representatives from NRE, Attorney General's Chambers (AGC) / NRE's Legal Advisor (LA-NRE), CEBLAW, and other relevant stakeholders and technical experts to be determined by the NSC.	NRE – National Project Director, PMU Director, Project Manager, Project Assistant, NRE support staff, contracted experts

National Steering Committee (NSC), UNDP to attend project meetings	Technical Working Group (TWG)	Project Management Unit (PMU)
(MoF), Ministry of Rural and Regional Development (KKLW), Ministry of Domestic Trade, Co-operatives and Consumerism (MDTCC), Forest Research Institute Malaysia (FRIM), Department of Forestry Peninsular Malaysia (JPSM), Dept of Wildlife and National Parks (PERHILITAN), Marine Parks, Sabah Biodiversity Centre (SaBC), Sarawak Biodiversity Centre (SBC), invited NGOs, UNDP		

212. The local management arrangements for each pilot project will be described in the exchange of letters with the project executing partners, and are expected to specify representation of principal stakeholders including relevant state authorities, ILCs and other partners in their implementation. There will be equitable participation of women and ethnic minorities on local level committees and groups related to PIC negotiations, community co-management, training and awareness activities.

Long-term stakeholder participation

213. The project will provide the following opportunities for long-term participation of all stakeholders, with a special emphasis on the active participation of local communities, and enhancement of inter-sectoral coordination for implementation of the proposed national ABS regime.

214. Decision-making – through the establishment of the National Steering Committee. The establishment of the structure will follow a participatory and transparent process involving the confirmation of all key project stakeholders; conducting one-to-one consultations with all stakeholders; development of Terms of Reference and ground-rules; inception meeting to agree on the constitution of the NSC.

215. Capacity building – at systemic, institutional and individual levels – is one of the key strategic interventions of the project and will target all stakeholders that have the potential to be involved in implementation of the national ABS regime in Malaysia, including demonstration activities at the community level. Women and indigenous / minority groups will be proactively considered for capacity building activities based on specific needs assessments.

216. Communication - will include the participatory development of an integrated communication strategy. The communication strategy will be based on the following key principles:

- providing information to all stakeholders;

- promoting dialogue between stakeholders;
- promoting access to information.

217. The project's design incorporates several features to ensure on-going and effective stakeholder participation in the project's implementation. The mechanisms to facilitate involvement and active participation of different stakeholder in project implementation will comprise a number of different components:

i) Project inception workshop
The project will be launched by a multi-stakeholder workshop. This workshop will provide an opportunity to provide all stakeholders with the most updated information on the project, refine and confirm the work plan, and will establish a basis for further consultation as the project's implementation commences.

ii) Constitution of NationalSteering Committee
TheNationalSteering Committee's constituency will be constituted to ensure broad representation of all key interests throughout the project's implementation. The representation, and broad terms of reference, of the NSC are described in the Management Arrangements in Part III of the Project Document.

iii) Establishment of the Project Management Unit
The Project Management Unit will take direct operational responsibility for facilitating stakeholder involvement and ensuring increased local ownership of the project and its results. The PMU will be located in the NRE offices in Putrajaya to ensure coordination among key stakeholder organizations at the national level during the project period.FRIM, SBC and SaBCwill coordinate demonstration activities under components1 and 3 under delegated authority from NRE.

iv) Establishment of local working groups
At the activity level, local or specialist working groups (e.g., legal review team, database and monitoring team, PA system strategy and action plan development team, community involvement team) will be established, as required, to facilitate the active participation of affected institutions, organisations and individuals in the implementation of the respective project activities. Different stakeholder groups may take the lead in each of the working groups, depending on their respective mandates. There will be equitable representation of women and ethnic minorities in community level activities such as TK documentation, negotiation of ABS agreements, capacity building, alternative livelihoods and awareness programmes.

v) Project communications
The project will develop, implement and annually update a communications strategy to ensure that all stakeholders are informed on an on-going basis about: the project's objectives; the project's activities; overall project progress; and the opportunities for stakeholders' involvement in various aspects of the project's implementation.

vi) Implementation arrangements

Demonstration activities in components 1 and 3 have specifically been designed to directly involve local stakeholders duringimplementation, and to ensure that they benefit from the capacity building, awareness raising and final outcomes (eg ABS agreements) of these activities.Women and indigenous groups will be proactively considered for participation in these demonstration activities.

vii) Formalizing cooperative governance structures
The project will actively seek to formalize cooperative governance structures for governance of ABS regulation at federal and state levels, to ensure on-going participation of stakeholders in the implementation of the proposed ABS regime.

Coordination with related initiatives

218. The current project is the only planned national ABS project in Malaysia financed by GEF. As such, there are limited needs for coordination with other GEF financed projects, but linkages and synergies will be sought with the projects listed in the table below. In addition, the project will build on the regional UNEP/GEF project "Building capacity for regionally harmonized national processes for implementing CBD provisions on access to genetic resources and sharing of benefits" for the ASEAN region. **Table8** below lists the projects relevant to the current project and shows how collaboration with these projects will be ensured.

219. Although not GEF-financed, it should be mentioned that the project builds on a strong baseline which was largely supported by the UNDP project "Capacity Development for the Formulation of a Policy and Regulatory Framework for Access and Benefit-sharing of Biological Resources in Malaysia" executed by NRE, and which was completed in 2012 (see baseline section for details).

Table 9. Coordination and collaboration with Related GEF Financed Initiatives

GEF Financed Initiatives / Interventions	How collaboration with the project will be ensured
UNDP/GEF National Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan in Malaysia	CEO Approved. Under this project, revision of the National Biological Diversity Policy which deals with the conservation and sustainable use of biodiversity in a holistic manner will build in the ABS mechanism to support conservation efforts, also to be reflected in the revised NBSAPThese documents will also reflect that the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, integrated and reflected in the implementation of the CBD with the full and effective participation of indigenous and local communities. This project is also implemented by the same division in NRE and the NSC will have the same chair which not only enhances the project coordination but also the direction and guidance from the top management of NRE.
UNDP/GEF National Capacity Self Assessment for Global Environmental Management	Completed 2009. The National Capacity Self-Assessment (NCSA), identified capacity gaps where this project aims to intervene. The National Capacity Action Plan (2008) (NCAP) identified 13 activities to improve and enhance the implementation of the CBD. In the context of this project, the NCAP proposes activities relating to the development and implementation of a programme for ABS and establishing a national programme on traditional knowledge (TK) related to conservation of biodiversity. Therefore the

GEF Financed Initiatives / Interventions	How collaboration with the project will be ensured
	capacity gaps that were identified must be addressed in order to improve and enhance existing implementation in terms of policy and institutional framework; regulation and guidelines; federal and state cooperation; inter-agency coordination; knowledge and information management; incentives; increasing the number of experts; research and development; reporting framework and mainstreaming. The present project addresses most of these issues, such as an improved national legal and institutional framework for ABS, systematic capacity building for ABS and TK, improved inter-agency coordination regarding permits and checkpoints, mainstreamed access procedures such as harmonization of application forms across agencies, and support for pilot projects demonstrating ABS processes for bio-prospecting R&D and the application of TK. This project was implemented by the same division in NRE which enables the institutional memory to be applied to the current project.
UNEP/GEF Building capacity for regionally harmonized national processes for implementing CBD provisions on access to genetic resources and sharing of benefits	Malaysia as one of the active countries in the Like-Minded Megadiverse Countries (LMMC) group has been seen as playing a leading role in the development of ABS regulation under CBD. Related to this, Malaysia has provided ABS expertise to ASEAN workshops and member States, and has actively participated in the UNEP/GEF Project. Experiences gathered and lessons learned from the present project will be shared with other ASEAN member States through its Multi-Stakeholder Workshops and Peer-to-Peer Exchanges. These activities promote the transfer of practical knowledge, enable the dissemination of experiences, offer examples to those who have yet decided on how to proceed, and increase the capacity of ASEAN countries like Cambodia, Brunei and Myanmar to develop their national ABS regimes and to explore options for common positions at the regional level. As the UNEP/GEF project is scheduled for completion in June 2013, the present project (through NRE) will take note of its main results and take these into account in the design and implementation of the national framework on ABS, and in sharing results and lessons learned from the present project with ASEAN countries through the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB). This project is implemented by the same division in NRE which allows for consistency between national and regional efforts and avoids duplication while enhancing synergy and coordination.
GEF Small Grant Project – Sabah bio-cultural legislation	Coordination with the present project will take place through SaBC, which has an official coordinating role regarding ABS implementation in the state of Sabah and is responsible for executing an activity under Component 1 to demonstrate the use of community protocols to develop *sui generis* approaches to ABS for protection of traditional knowledge within the broader legal landscape in Sabah.
UNDP/GEF Improving the Connectivity of the Central Forest Spine (IC-CFS)	Council Approved. The project aims to increase connectivity of the Central Forest Spine for biodiversity conservation and maintaining ecosystem services. The proposed project will complement the IC-CFS Project by establishing a system for handling ABS issues and demonstrating model ABS agreements which will support the conservation of important ecosystems such as in the CFS area. The pilot sites in Peninsular Malaysia are within the CFS, contributing improved management of the CFS by realising economic benefits from the use of biological resources while ensuring custodians of the resources will derive benefits from the use, thus incentivising enhanced protection of the natural resources. NRE and UNDP will ensure close coordination of the project.
UNDP/GEF Enhancing the effectiveness and financial sustainability of protected areas in Malaysia	CEO Approved and under implementation. This project aims at increasing financial resources for management of protected areas through conventional and non-conventional sources. Hence the benefit sharing element of ABS could be an important source for funding to strengthen financing of protected areas in Malaysia. It is envisaged that through successful benefit sharing, which brings about tangible monetary benefits, it could provide an alternative source of income for indigenous and local communities (ILCs) living in and around protected areas which will reduce their dependency on resources which will translate into keeping a protected area more intact and reducing

GEF Financed Initiatives / Interventions	How collaboration with the project will be ensured
	pressure on overall biodiversity. This project is implemented by DWNP and NSC is chaired by NRE which will allow for coordination of these 2 projects.
UNDP/GEF Biodiversity Conservation in Multiple Use Forest Landscapes in Sabah, Malaysia	Under Implementation. The objective of the project is to bring the land uses in the connecting landscape and protected areas under a common and integrated management umbrella strategy in order to mainstream biodiversity, ecosystem functions and resilience, while enabling ongoing sustainable uses, by achieving three interconnected outcomes: (1) provisioning of an enabling environment for optimized multiple use planning, financing, management and protection of forest landscapes; (2) demonstration of multiple-use forest landscape planning and management system, and (3) demonstration of innovative sustainable financing methods for multiple-use forest landscape management. Coordination mechanisms – the project will be implemented by the Sabah Forestry Department with the support from Sabah Foundation and Sabah Biodiversity Centre. The participation of Sabah Biodiversity Centre in this project will enable the incorporation of ABS mechanisms within the targeted outcomes, especially outcome 3 on innovative sustainable financing.

Project Annexes

Annex 1. Additional Baseline Information on Bio-prospecting Activities

Despite the lack of a national regulatory framework, there are a number of agreements in place regarding bio-prospecting activities. At the **Federal level**, there are MoUs between FRIM and Nimura, a Japanese genetic engineering firm[46]; and between FRIM and SBC, focusing on biodiversity development and bio-prospecting.[47] There is also a private joint venture between the Malaysia's TropBio Research and Fujisawa Pharmaceuticals, Japan's second largest pharmaceutical company focuses on soil bioprospecting.[48]

There are also a number of initiatives at **state level**, including the following[49]:

Sabah: the Sabah Biodiversity Centre (SaBC) signed an MOU with the University of Manchester and Lonza AG, which is a marine bioprospecting project in search of novel fluorescent proteins and enzymes as part of the Lonza Innovation for Future Technology initiatives.[50]SaBC has also commenced on a biotechnology project with Universiti Malaysia Sabah (UMS) to explore the potential of Sabah's natural resources with commercialization as its final objective and also to produce chemical compound extract as well as data about the biological source.[51]

Sarawak: the Sarawak Biodiversity Centre (SBC) signed a two-year research collaboration agreement with Mitsubishi Corporation (MC) to explore the diverse algal biodiversity of Sarawak as a potential source of renewable energy. During the two years, the parties hold joint scientific expeditions through the SBC to explore the unique ecosystems in the waters of Sarawak and collect, isolate and study microalgae species. The isolated microalgae will be identified using molecular techniques, cultured for detailed research and analysed to generate a database as well as an algae library. The parties plan to test the cultures to identify its useful biological characteristics as biomass or feedstock for biofuels and 'co-products' that may have

[46] The joint venture will ensure benefit-sharing through a process whereby Japanese scientists working in local laboratories are required to leave a "copy" of every identified sample collected in Malaysia. Nimura is required to provide FRIM royalties for any "novel compounds". FRIM has been working with Malaysian universities since 2002 and has registered 300 native species with their traditional uses and is growing another 200 of these species in their arboretum. *See* Fernando Quezada, *Status and potential of commercial bioprospecting activities in Latin America and the Caribbean*, Chile: United Nations, 28.

[47] The scope of cooperation covers research and documentation of biodiversity, traditional knowledge documentation, research in herbal products development, training, capacity building and technology transfer. Signed 26 February 2011. http://www.frim.gov.my/?p=18

[48] Soil samples are collected in Malaysia but Fujisawa is providing training for Malaysians thus locals benefit from acquiring new skills as well as employment. The scientific research community also benefits as part of an economic development strategy where local researchers have the opportunity to increase their skills through education and training directly linked to bioprospecting activities. TropBio Research SdnBhdis a biotechnology company, specialising in plant tisssue culture, molecular biology, and genetic engineering.*Ibid.*,29.

[49]Note – some commercial partnerships have not been listed here at the request of the concerned government agencies. Further information is available on their websites:
http://www.frim.gov.my/?page_id=2071
http://www.sabah.gov.my/sabc/index.php?option=com_content&view=article&id=131&Itemid=88http://www.sbc.org.my/index.php/en/component/weblinks/category/39-english-category/17-our-collaborators

[50] Reported 3 November 2010, http://www.aquapreneur.com/tag/marine-bioprospecting/page/6, last accessed on 4 February 2013.

[51]http://www.mysarawak.org/2012/12/18/sabah-should-have-clout-in-protecting-natives-biodiversity-and-traditional-knowledge-centre.html

applications as food and health supplements. MC funds the research and provides the technical knowhow whereas the SBC provides the researchers and its facilities in Semengoh.[52]

Perak: Saamya Biotech India Ltd has entered into a Joint Venture agreement with a PBC to set up a bio-pharmaceutical manufacturing unit at Perak in Malaysia. The facility will be for Saamya Biotech (Malaysia) SdnBhd, a subsidiary company of the Indian firm. PBC has reportedly allotted 12.63 acres land for Saamya Biotech (Malaysia) SdnBhd for this project towards the equity participation of Perak state government.[53]

Johor: MOA between J-BioTech and University Teknologi Malaysia (UTM), to further enhance research work on and application of biotechnology. UTM students will work with industrial players and share their findings on product development with the corporations.[54]

[52] http://www.theborneopost.com/2012/11/06/mitsubishi-corporation-inks-research-collaboration-agreement-with-sbc, 6 November 2012.
[53] Reported on 26 January 2010. http://news.chillx.com/india/news/saamya-biotech-signs-jv-agreement-with-malaysian-firm/
[54] Reported 14 June 2012. http://www.iskandarmalaysia.com.my/news/120614/state-to-focus-on-biotech; http://www.nst.com.my/streets/johor/state-to-focus-on-biotech-1.94307

Annex 2. ABS Institutional Capacity Scorecard – Baseline Results

A. National ABS Institutional Capacity Scorecard –Ministry of Natural Resources and Environment

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
1. Capacity to conceptualize and formulate policies, laws, strategies and programmes	The Access and Benefit-Sharing (ABS) agenda is being effectively championed / driven forward	0 -- There is essentially no ABS agenda; 1 -- There are some persons or institutions actively pursuing an ABS agenda but they have little effect or influence; 2 -- There are a number of ABS champions that drive the ABS agenda, but more is needed; 3 -- There are an adequate number of able "champions" and "leaders" effectively driving forwards an ABS agenda	2	NRE is the focal agency on ABS and there is an overall policy and commitment to have a national ABS law. However, federal-state issues seem to have an effect on getting the buy in to have a federal law.
	There is a legally designated institution(s) responsible for ABS with the capacity to develop a national ABS framework (i.e., laws, policies and/or regulations)	0 -- There is no institution(s) responsible for ABS; 1 – The institution(s) has limited financial resources, personnel and expertise; 2 – The institution(s) has limited financial resources and personnel but adequate expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	2	Malaysia has expertise on ABS and the creation of CEBLAW has enhanced the knowledge and overall understanding of the issues. At NRE level, the understanding of ABS issues is adequate but lacks the needed funding and personnel to address this issues efficiently.
2. Capacity to implement policies, legislation, strategies and programmes	There is a designated ABS institution(s) responsible for ABS that can facilitate the implementation of the national ABS framework.	0 – The institution(s) does not have the financial resources, personnel, and planning/management skills; 1 – The institution(s) has limited financial resources and personnel and planning/management skills; 2 – The institution(s) has financial resources and personnel but limited planning/management skills; 3 – The institution(s) has sufficient financial resources, personnel and planning/management skills.	NA	In absence of a national law on ABS, the CBD focal point is also the interim focal point for ABS issues. Malaysia is looking at creating institutional structure equipped with adequate financial, human and other resources as a vehicle to effectively implement the legal framework on ABS as well as obligation under CBD and other MEAs related to ABS

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	The ABS institution (s) is effectively led	0 – The ABS institution(s) has a total lack of leadership; 1 – The ABS institution(s) has weak leadership and provides little guidance; 2 – The ABS institution(s) has a reasonably strong leadership but there is still need for improvement; 3 – The ABS institution(s) is effectively led	NA	There is official and political commitment at the highest level at NRE. This is reflected in the leadership role played by the Hon. Minister himself in these issues. But what needs to be in place is institutionalization of ABS issues in a concrete manner to ensure continuity and the momentum kept.
	Human resources for ABS management are well qualified and motivated	0 -- Human resources are poorly qualified and unmotivated; 1 -- Human resources qualification is spotty, with some well qualified, but many only poorly and in general unmotivated; 2 – Human Resources in general reasonably qualified, but many lack in motivation, or those that are motivated are not sufficiently qualified; 3 -- Human resources are qualified and motivated.	NA	The motivation level of the interim ABS focal point is high given the personnel involved have a passion for this issue. Nevertheless, in the long term there would need technical skills set develop and introduced in implementing the national law.
	The ABS institution(s) is audited and publicly accountable	0 – The ABS institution(s) is not being held accountable and not audited; 1 – The ABS institution(s) is occasionally audited without being held publicly accountable; 2 – The ABS institution(s) is regularly audited and there is a fair degree of public accountability but the system is not fully transparent; 3 – The ABS institution(s) is highly fully audited, and publicly accountable.	NA	A dedicated ABS institution at the federal level is not in place yet. It is a common practice in Malaysia with the adoption of a national law the institutional structure will be established.
	Enforcement of ABS regulations	0 -- No enforcement of regulations is taking place; 1 -- Some enforcement of regulations is taking place but it is largely ineffective; 2 -- ABS regulations are regularly enforced but are not fully effective; 3 -- ABS regulations are highly effectively enforced.	NA	No national ABS law in place.
	Individuals are able to advance and develop professionally	0 -- No career tracks are developed and no training opportunities are provided; 1 -- Career tracks are weak and training possibilities are few and not managed transparently; 2 -- Clear career tracks developed and training available; HR management however has inadequate performance measurement system; 3 -- Individuals are able to advance and develop professionally.	NA	Institutional structure is not in place but the Ministry is forwarding the idea of establishing a National Biodiversity Centre (NBC) which may also be the lead agency for ABS

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	Individuals are appropriately skilled for their jobs	0 -- Skills of individuals do not match job requirements; 1 -- Individuals have some or poor skills for their jobs; 2 -- Individuals are reasonably skilled but could further improve for optimum match with job requirement; 3 -- Individuals are appropriately skilled for their jobs	NA	At the moment, NRE which is the focal point for CBD is also the focal point for ABS. Currently the officers involved in ABS are from the Diplomatic and Administrative Scheme which are easily transferable and do not necessarily have prior biodiversity background nor training. Hence, the setting up of a dedicated institution on ABS is urgently needed.
	There are appropriate mechanisms of training, mentoring, and learning in place to maintain a continuous flow of new staff	0 -- No mechanisms exist; 1 -- Some mechanisms exist but unable to develop enough and unable to provide the full range of skills needed; 2 -- Mechanisms generally exist to develop skilled professionals, but either not enough of them or unable to cover the full range of skills required; 3 -- There are mechanisms for developing adequate numbers of the full range of highly skilled ABS professionals	0	No official mechanism in absence of a proper ABS institution. In the current set up, training are done through mentoring.
3. Capacity to engage and build consensus among all stakeholders	ABS has the political commitment	0 -- There is no political will at all, or worse, the prevailing political will runs counter to the interests of ABS; 1 -- Some political will exists, but is not strong enough to make a difference; 2 -- Reasonable political will exists, but is not always strong enough to fully support ABS; 3 -- There are very high levels of political will to support ABS.	3	As explained above
	Degree of public support on ABS issues	0 -- The public has little interest in ABS and there is no significant lobby for ABS as awareness is still low; 1 -- There is limited support for ABS; 2 -- There is limited public support for ABS and there are various lobby groups pushing them; 3 -- There is strong public support in the country for ABS.	1	Currently there is a lack of public awareness and exposure on ABS.
	The ABS institution(s) is mission oriented	0 -- Institutional mission is not defined; 1 -- Institutional mission is poorly defined and generally not known and internalized at all levels; 2 -- Institutional mission well defined and internalized	NA	Institution is not in place yet.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
		but not fully embraced; 3 – Institutional mission is fully internalized and embraced.		
	The ABS institution(s) can facilitate the partnerships needed to achieve its objectives	0 – The ABS institution(s) operate in isolation; 1 – The ABS institution(s) has facilitated some partnerships but significant gaps and existing partnerships achieve little; 2 – The ABS institution(s) has facilitated many partnerships with a wide range of national and local agencies, private sector and NGOs but there are some gaps and partnerships, are not always effective and do not always enable efficient achievement of ABS objectives; 3 – The ABS institution(s) has facilitated effective partnerships with national and local agencies, private sector and NGOs to enable achievement of ABS objectives in an efficient and effective manner.	NA	No national law and institution on ABS in place
4. Capacity to mobilize information and knowledge	The ABS institution(s) has the information it needs to enforce the national legal/policy ABS framework and to facilitate ABS deals	0 -- Information is virtually lacking; 1 – The ABS institution(s) has access to some information, but is of poor quality, is of limited usefulness, or is very difficult to access; 2 – The ABS institution(s) has access to a lot of information which is mostly of good quality, but there remain some gaps in quality, coverage and availability; 3 – The ABS institution(s) has the information it needs to enforce the national legal/policy framework and facilitate ABS deals.	NA	No national law and institution on ABS in place
	Individuals from the ABS institution(s) work effectively together as a team	0 -- Individuals work in isolation and don't interact; 1 -- Individuals interact in limited way and sometimes in teams but this is rarely effective and functional; 2 -- Individuals interact regularly and form teams, but this is not always fully effective or functional; 3 -- Individuals interact effectively and form functional teams.	NA	No national law and institution on ABS in place
5. Capacity to monitor, evaluate, report and learn	There is a legally designated institution(s) responsible for ABS and able to update the ABS national framework	0 – The institution(s) does not have the financial resources, personnel, and expertise; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	NA	No national law and institution on ABS in place, Hence, no monitoring
	ABS policy or law is continually reviewed and updated	0 -- There is no policy or law or it is old and not reviewed regularly; 1 -- Policy or law is only reviewed at irregular intervals; 2 – Policy or law is reviewed regularly but not annually; 3 -- Policy or law is reviewed annually.	1	Policy: National Policy on Biological Diversity 1998 Law : No national law in place

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	Society monitors ABS projects	0 -- There is no dialogue at all; 1 -- There is some dialogue going on, but not in the wider public and restricted to specialized circles; 2 -- There is a reasonably open public dialogue going on but certain issues remain taboo; 3 -- There is an open and transparent public dialogue about the state of the ABS projects.	1	In the absence of national law there is limited public intervention on certain ABS project.
	Institutions are highly adaptive, responding effectively and immediately to change promoted by implementation of the national ABS framework (i.e., laws, policies and/or regulations).	0 – There is no implementation of the national ABS framework at the moment; 1 -- Institutions do change but only very slowly; 2 -- Institutions tend to adapt in response to change but not always very effectively or with some delay; 3 -- Institutions are highly adaptive, responding effectively and immediately to change.	0	
	The ABS institution(s) has effective internal mechanisms for monitoring, evaluation, reporting and learning on ABS projects	0 -- There are no mechanisms for monitoring, evaluation, reporting or learning; 1 -- There are some mechanisms for monitoring, evaluation, reporting and learning but they are limited and weak; 2 -- Reasonable mechanisms for monitoring, evaluation, reporting and learning are in place but are not as strong or comprehensive as they could be; 3 -- Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning.	0	
	Individuals from ABS institutions are adaptive and continue to learn	0 -- There is no measurement of performance or adaptive feedback; 1 -- Performance is irregularly and poorly measured and there is little use of feedback; 2 -- There is significant measurement of performance and some feedback but this is not as thorough or comprehensive as it might be; 3 -- Performance is effectively measured and adaptive feedback utilized	0	

* Note: the above evaluation is done by NRE, not taking into account other institutions set up at state level on ABS matters. This evaluation gives perspective at federal/national level only.

Baseline score: 10 out of possible 30 = 33.33%

B. ABS INSTITUTIONAL CAPACITY SCORECARD –SARAWAK BIODIVERSITY CENTRE

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
1. Capacity to conceptualize and formulate policies, laws, strategies and programmes	The Access and Benefit-Sharing (ABS) agenda is being effectively championed / driven forward	0 -- There is essentially no ABS agenda; 1 -- There are some persons or institutions actively pursuing an ABS agenda but they have little effect or influence; 2 -- There are a number of ABS champions that drive the ABS agenda, but more is needed; 3 -- There are an adequate number of able "champions" and "leaders" effectively driving forwards an ABS agenda	2	The existing State laws implemented by SBC are the Sarawak Biodiversity Centre Ordinance 1997 and Sarawak Biodiversity Regulations 2004. SBC also considers ABS in all its collaborations.
	There is a legally designated institution(s) responsible for ABS with the capacity to develop a national ABS framework (i.e., laws, policies and/or regulations)	0 -- There is no institution(s) responsible for ABS; 1 – The institution(s) has limited financial resources, personnel and expertise; 2 – The institution(s) has limited financial resources and personnel but adequate expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	0	There is no designated ABS institution in Sarawak. However, SBC is regulating research onto State's biological resources.
2. Capacity to implement policies, legislation, strategies and programmes	There is a designated ABS institution(s) responsible for ABS that can facilitate the implementation of the national ABS framework.	0 – The institution(s) does not have the financial resources, personnel, and planning/management skills; 1 – The institution(s) has limited financial resources and personnel and planning/management skills; 2 – The institution(s) has financial resources and personnel but limited planning/management skills; 3 – The institution(s) has sufficient financial resources, personnel and planning/management skills.	NA	There is no designated ABS institution in Sarawak. However, there are existing State laws which are enforced by SBC as in item 1.0. The Sarawak State government is in the midst of revising its relevant ordinances/laws so as to be in line with the implementation of national ABS framework. Within the revision of the laws, the roles of ABS implementing agencies will be clearly defined.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	The ABS institution (s) is effectively led	0 – The ABS institution(s) has a total lack of leadership; 1 – The ABS institution(s) has weak leadership and provides little guidance; 2 – The ABS institution(s) has a reasonably strong leadership but there is still need for improvement; 3 – The ABS institution(s) is effectively led	NA	Same as above
	Human resources for ABS management are well qualified and motivated	0 -- Human resources are poorly qualified and unmotivated; 1 -- Human resources qualification is spotty, with some well qualified, but many only poorly and in general unmotivated; 2 -- Human Resources in general reasonably qualified, but many lack in motivation, or those that are motivated are not sufficiently qualified; 3 -- Human resources are qualifie and motivated.	NA	Though there is no designated ABS institution, SBC plays the role in regulating access and ensure there is benefit sharing arising from its utilization. However, SBC has limited experience and actual implementation/practice of ABS. There is a need for human resource who are identified from all implementing agencies to be properly trained and exposed to ABS principles and practices.
	The ABS institution(s) is audited and publicly accountable	0 – The ABS institution(s) is not being held accountable and not audited; 1 – The ABS institution(s) is occasionally audited without being held publicly accountable; 2 – The ABS institution(s) is regularly audited and there is a fair degree of public accountability but the system is not fully transparent; 3 – The ABS institution(s) is highly fully audited, and publicly accountable.	NA	Not relevant as there is no ABS institution in Sarawak.
	Enforcement of ABS regulations	0 -- No enforcement of regulations is taking place; 1 -- Some enforcement of regulations is taking place but it is largely ineffective; 2 -- ABS regulations are regularly enforced but are not fully effective; 3 -- ABS regulations are highly effectively enforced.	2	At Sarawak State level, SBC is given the mandate to enforce the Sarawak Biodiversity Centre Ordinance 1997, Amendment Ordinance 2003 and Sarawak Biodiversity Regulations 2004. The laws has provisions on access but provisions on benefit sharing are not clearly defined
	Individuals are able to	0 -- No career tracks are developed and no training	1	SBC's officers have been given opportunity for capacity building on

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	advance and develop professionally	opportunities are provided; 1 -- Career tracks are weak and training possibilities are few and not managed transparently; 2 -- Clear career tracks developed and training available; HR management however has inadequate performance measurement system; 3 -- Individuals are able to advance and develop professionally.		ABS.
	Individuals are appropriately skilled for their jobs	0 -- Skills of individuals do not match job requirements; 1 -- Individuals have some or poor skills for their jobs; 2 -- Individuals are reasonably skilled but could further improve for optimum match with job requirement; 3 -- Individuals are appropriately skilled for their jobs	1	No specific to ABS but SBC has one post that entails overseeing its regulatory function
	There are appropriate mechanisms of training, mentoring, and learning in place to maintain a continuous flow of new staff	0 -- No mechanisms exist; 1 -- Some mechanisms exist but unable to develop enough and unable to provide the full range of skills needed; 2 -- Mechanisms generally exist to develop skilled professionals, but either not enough of them or unable to cover the full range of skills required; 3 -- There are mechanisms for developing adequate numbers of the full range of highly skilled ABS professionals	0	As the actual implementation of ABS has not taken place, there is limited exposure and actual implementation/practice of ABS. There is a need for a programme or mechanism to train and develop human resource from all implementing agencies in ABS principles, policies and practices at both international and national levels.
3. Capacity to engage and build consensus among all stakeholders	ABS has the political commitment	0 -- There is no political will at all, or worse, the prevailing political will runs counter to the interests of ABS; 1 -- Some political will exists, but is not strong enough to make a difference; 2 -- Reasonable political will exists, but is not always strong enough to fully support ABS; 3 -- There are very high levels	2	The Sarawak State has enacted the Sarawak Biodiversity Centre Ordinance 1997 and Sarawak Biodiversity Regulations 2004 to regulate research onto its biological resources. The Sarawak State government is also in the midst of revising its relevant ordinances/laws so as to be in line with the implementation of national ABS framework.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
		of political will to support ABS.		
	Degree of public support on ABS issues	0 -- The public has little interest in ABS and there is no significant lobby for ABS as awareness is still low; 1 -- There is limited support for ABS; 2 -- There is limited public support for ABS and there are various lobby groups pushing them; 3 -- There is tremendous public support in the country for ABS.	1	ABS is a considerably new (or even unknown) concept to most and much more is needed to be done in terms of creating awareness towards the subject matter.
	The ABS institution(s) is mission oriented	0 -- Institutional mission is not defined; 1 -- Institutional mission is poorly defined and generally not known and internalized at all levels; 2 -- Institutional mission well defined and internalized but not fully embraced; 3 – Institutional mission is fully internalized and embraced.	0	There is no ABS institution at State level.
	The ABS institution(s) can facilitate the partnerships needed to achieve its objectives	0 – The ABS institution(s) operate in isolation; 1 – The ABS institution(s) has facilitated some partnerships but significant gaps and existing partnerships achieve little; 2 – The ABS institution(s) has facilitated many partnerships with a wide range of national and local agencies, private sector and NGOs but there are some gaps and partnerships, are not always effective and do not always enable efficient achievement of ABS objectives; 3 – The ABS institution(s) has facilitated effective partnerships with national and local agencies, private sector and NGOs to enable achievement of ABS objectives in an efficient and effective manner.	2	SBC has, under its Traditional Knowledge Documentation Programme, facilitated communities towards product development. The gaps with regards to policies and negotiations between communities and entrepreneurs/manufacturers need to be addressed.
4. Capacity to mobilize information and knowledge	The ABS institution(s) has the information it needs to enforce the	0 -- Information is virtually lacking; 1 – The ABS institution(s) has access to some information, but is of poor quality, is of limited usefulness, or is very difficult to	NA	There is no ABS institution. However, SBC is guided by the existing laws

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	national legal/policy ABS framework and to facilitate ABS deals	access; 2 – The ABS institution(s) has access to a lot of information which is mostly of good quality, but there remain some gaps in quality, coverage and availability; 3 – The ABS institution(s) has the information it needs to enforce the national legal/policy framework and facilitate ABS deals.		
	Individuals from the ABS institution(s) work effectively together as a team	0 -- Individuals work in isolation and don't interact; 1 -- Individuals interact in limited way and sometimes in teams but this is rarely effective and functional; 2 -- Individuals interact regularly and form teams, but this is not always fully effective or functional; 3 -- Individuals interact effectively and form functional teams.	NA	There is no ABS institution. However, State agencies are guided by existing laws to enforce provisions relating to ABS within their own jurisdiction.
5. Capacity to monitor, evaluate, report and learn	There is a legally designated institution(s) responsible for ABS and able to update the ABS national framework	0 – The institution(s) does not have the financial resources, personnel, and expertise; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	NA	There is currently no specific/designated ABS institution in Sarawak
	ABS policy or law is continually reviewed and updated	0 -- There is no policy or law or it is old and not reviewed regularly; 1 -- Policy or law is only reviewed at irregular intervals; 2 – Policy or law is reviewed regularly but not annually; 3 -- Policy or law is reviewed annually.	1	Existing State laws are reviewed to adopt new national policies or international treaties that the country becomes party to.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	Society monitors ABS projects	0 -- There is no dialogue at all; 1 -- There is some dialogue going on, but not in the wider public and restricted to specialized circles; 2 -- There is a reasonably open public dialogue going on but certain issues remain taboo; 3 -- There is an open and transparent public dialogue about the state of the ABS projects.	1	Under SBC's Traditional Knowledge Documentation Programme, these dialogues are limited to participating indigenous communities and representatives from associations that represent these communities.
	Institutions are highly adaptive, responding effectively and immediately to change promoted by implementation of the national ABS framework (i.e., laws, policies and/or regulations).	0 – There is no implementation of the national ABS framework at the moment; 1 -- Institutions do change but only very slowly; 2 -- Institutions tend to adapt in response to change but not always very effectively or with some delay; 3 -- Institutions are highly adaptive, responding effectively and immediately to change.	0	The implementation of the National ABS framework is still in progress.
	The ABS institution(s) has effective internal mechanisms for monitoring, evaluation, reporting and learning on ABS projects	0 -- There are no mechanisms for monitoring, evaluation, reporting or learning; 1 -- There are some mechanisms for monitoring, evaluation, reporting and learning but they are limited and weak; 2 -- Reasonable mechanisms for monitoring, evaluation, reporting and learning are in place but are not as strong or comprehensive as they could be; 3 -- Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning.	1	At the state level, ABS is indicated in state laws such as the Forest Ordinance and the Sarawak Biodiversity Centre Ordinance and Sarawak Biodiversity Regulations. However these are not distinctly defined as yet.
	Individuals from ABS institutions are adaptive and continue to learn	0 -- There is no measurement of performance or adaptive feedback; 1 -- Performance is irregularly and poorly measured and there is little use of feedback;	0	As the actual implementation of ABS has not taken place, there is limited exposure and actual implementation/practice of ABS.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
		2 -- There is significant measurement of performance and some feedback but this is not as thorough or comprehensive as it might be; 3 -- Performance is effectively measured and adaptive feedback utilized		

Baseline Score: 14 out of possible 45 = 31.11%

C. ABS INSTITUTIONAL CAPACITY SCORECARD –SABAH BIODIVERSITY CENTRE

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
1. Capacity to conceptualize and formulate policies, laws, strategies and programmes	The Access and Benefit-Sharing (ABS) agenda is being effectively championed / driven forward	0 -- There is essentially no ABS agenda; 1 -- There are some persons or institutions actively pursuing an ABS agenda but they have little effect or influence; 2 -- There are a number of ABS champions that drive the ABS agenda, but more is needed; 3 -- There are an adequate number of able "champions" and "leaders" effectively driving forwards an ABS agenda	1	ABS initiative has been started seriously in 2009 by the Sabah Biodiversity Centre (SaBC) in response to the directive by the Sabah Biodiversity Council. A committee was formed chaired by the State AG's Office to receive feedback from stakeholders regarding draft ABS Regulations, with SaBC as its Secretariat. However, it is yet to be gazetted as the Sabah Biodiversity Enactment 2000 (SBE2000) needs to be amended for such ABS agenda to be implemented effectively.
	There is a legally designated institution(s) responsible for ABS with the capacity to develop a national ABS framework (i.e., laws, policies and/or regulations)	0 -- There is no institution(s) responsible for ABS; 1 – The institution(s) has limited financial resources, personnel and expertise; 2 – The institution(s) has limited financial resources and personnel but adequate expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	1	Under the SBE2000, the power to approve and issue access licences is under the Council. SaBC is only involved in determining policies and guidelines for such access and its utilization. To assist the Council, a vetting committee has been formed (but only for vetting access on academic applications), but with approval by the Council, still. And commercial application is still with the Council jurisdiction.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
2. Capacity to implement policies, legislation, strategies and programmes	There is a designated ABS institution(s) responsible for ABS that can facilitate the implementation of the national ABS framework.	0 – The institution(s) does not have the financial resources, personnel, and planning/management skills; 1 – The institution(s) has limited financial resources and personnel and planning/management skills; 2 – The institution(s) has financial resources and personnel but limited planning/management skills; 3 – The institution(s) has sufficient financial resources, personnel and planning/management skills.	1	SabC currently has 10 full time staff engaged in administrative duties, and an annual operational budget of about USD100,000. SaBC would be an appropriate institution at the State level to facilitate management and administration of ABS related issues. However, major policy decisions will be done by the Council.
	The ABS institution (s) is effectively led	0 – The ABS institution(s) has a total lack of leadership; 1 – The ABS institution(s) has weak leadership and provides little guidance; 2 – The ABS institution(s) has a reasonably strong leadership but there is still need for improvement; 3 – The ABS institution(s) is effectively led	2	There are motivated leadership staff ready to move ABS forward.
	Human resources for ABS management are well qualified and motivated	0 -- Human resources are poorly qualified and unmotivated; 1 -- Human resources qualification is spotty, with some well qualified, but many only poorly and in general unmotivated; 2 – Human Resources in general reasonably qualified, but many lack in motivation, or those that are motivated are not sufficiently qualified; 3 -- Human resources are qualified a motivated.	1	There are people out there have the interest and some good background on ABS – our Traditional & Ecological Knowledge programme under the BBEC II has provided some good experience and knowledge.
	The ABS institution(s) is audited and publicly accountable	0 – The ABS institution(s) is not being held accountable and not audited; 1 – The ABS institution(s) is occasionally audited without being held publicly accountable; 2 – The ABS institution(s) is regularly audited and there is a fair degree of public accountability but the system is not fully transparent; 3 – The ABS institution(s) is highly fully audited, and publicly accountable.	0	SaBC has not reached this stage yet.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	Enforcement of ABS regulations	0 -- No enforcement of regulations is taking place; 1 -- Some enforcement of regulations is taking place but it is largely ineffective; 2 -- ABS regulations are regularly enforced but are not fully effective; 3 -- ABS regulations are highly effectively enforced.	1	SaBC as Secretariat of the Council has authority for enforcement. Council can also engage other authorities such as the police for this task. Planning to start enforcement activities of the SBE 2000 and related legislation from 2013.
	Individuals are able to advance and develop professionally	0 -- No career tracks are developed and no training opportunities are provided; 1 -- Career tracks are weak and training possibilities are few and not managed transparently; 2 -- Clear career tracks developed and training available; HR management however has inadequate performance measurement system; 3 -- Individuals are able to advance and develop professionally.	1	There are some opportunities through collaborative projects to build staff capacity, but no systematic government training programme yet exists related to ABS.
	Individuals are appropriately skilled for their jobs	0 -- Skills of individuals do not match job requirements; 1 -- Individuals have some or poor skills for their jobs; 2 -- Individuals are reasonably skilled but could further improve for optimum match with job requirement; 3 -- Individuals are appropriately skilled for their jobs	1	SaBC staff have limited technical skills related to ABS for their roles.
	There are appropriate mechanisms of training, mentoring, and learning in place to maintain a continuous flow of new staff	0 -- No mechanisms exist; 1 -- Some mechanisms exist but unable to develop enough and unable to provide the full range of skills needed; 2 -- Mechanisms generally exist to develop skilled professionals, but either not enough of them or unable to cover the full range of skills required; 3 -- There are mechanisms for developing adequate numbers of the full range of highly skilled ABS professionals	0	Not in place.
3. Capacity to engage and build consensus	ABS has the political commitment	0 -- There is no political will at all, or worse, the prevailing political will runs counter to the interests of ABS;	1	The existence of SBE 2000 and draft ABS Regulations are a reflection of political commitment. The establishment and funding of SaBC is

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
among all stakeholders		1 -- Some political will exists, but is not strong enough to make a difference; 2 -- Reasonable political will exists, but is not always strong enough to fully support ABS; 3 -- There are very high levels of political will to support ABS.		also a positive indication.
	Degree of public support on ABS issues	0 -- The public has little interest in ABS and there is no significant lobby for ABS as awareness is still low; 1 -- There is limited support for ABS; 2 -- There is limited public support for ABS and there are various lobby groups pushing them; 3 -- There is tremendous public support in the country for ABS.	2	NGO and government stakeholders are aware of ABS issues. Little awareness among the general public, with the exception of selected local communities.
	The ABS institution(s) is mission oriented	0 -- Institutional mission is not defined; 1 -- Institutional mission is poorly defined and generally not known and internalized at all levels; 2 -- Institutional mission well defined and internalized but not fully embraced; 3 – Institutional mission is fully internalized and embraced.	2	SaBC and the Sabah Biodiversity Council have clear mandates according to the SBE 2000, but not fully implemented at this stage.
	The ABS institution(s) can facilitate the partnerships needed to achieve its objectives	0 – The ABS institution(s) operate in isolation; 1 – The ABS institution(s) has facilitated some partnerships but significant gaps and existing partnerships achieve little; 2 – The ABS institution(s) has facilitated many partnerships with a wide range of national and local agencies, private sector and NGOs but there are some gaps and partnerships, are not always effective and do not always enable efficient achievement of ABS objectives; 3 – The ABS institution(s) has facilitated effective partnerships with national and local agencies, private sector and NGOs to enable achievement of ABS objectives in an efficient and effective manner.	1	There are some financial limitations on the extent of partnerships possible at present, however SaBC does have existing partnerships with a number of NGO and commercial organizations.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
4. Capacity to mobilize information and knowledge	The ABS institution(s) has the information it needs to enforce the national legal/policy ABS framework and to facilitate ABS deals	0 -- Information is virtually lacking; 1 – The ABS institution(s) has access to some information, but is of poor quality, is of limited usefulness, or is very difficult to access; 2 – The ABS institution(s) has access to a lot of information which is mostly of good quality, but there remain some gaps in quality, coverage and availability; 3 – The ABS institution(s) has the information it needs to enforce the national legal/policy framework and facilitate ABS deals.	1	The Sabah Museum has SMRICHES, and Sabah Economic Development and Investment Authority (SEDIA) have developed a Herbal and Medicinal Knowledge Base, which SaBC intends to utilize for information management related to Traditional Knowledge on genetic resources.
	Individuals from the ABS institution(s) work effectively together as a team	0 -- Individuals work in isolation and don't interact; 1 -- Individuals interact in limited way and sometimes in teams but this is rarely effective and functional; 2 -- Individuals interact regularly and form teams, but this is not always fully effective or functional; 3 -- Individuals interact effectively and form functional teams.	2	Two Task Forces have been formed – one from relevant agencies for biodiversity conservation, and one for traditional knowledge with MyIPO, Sabah Museum, and NGOs.
5. Capacity to monitor, evaluate, report and learn	There is a legally designated institution(s) responsible for ABS and able to update the ABS national framework	0 – The institution(s) does not have the financial resources, personnel, and expertise; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	1	Sabah's ABS institutions currently have limited financial resources, staff and expertise for monitoring, evaluation and reporting on ABS issues.
	ABS policy or law is continually reviewed and updated	0 -- There is no policy or law or it is old and not reviewed regularly; 1 -- Policy or law is only reviewed at irregular intervals; 2 – Policy or law is reviewed regularly but not annually; 3 -- Policy or law is reviewed annually.	1	The SBE 2000 is in force, and is currently under review by the state AG's office to clarify responsibilities and ensure effective implementation through the modification of some provisions.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	Society monitors ABS projects	0 -- There is no dialogue at all; 1 -- There is some dialogue going on, but not in the wider public and restricted to specialized circles; 2 -- There is a reasonably open public dialogue going on but certain issues remain taboo; 3 -- There is an open and transparent public dialogue about the state of the ABS projects.	1	There is some NGO discussion through MyTKDL and other ABS initiatives.
	Institutions are highly adaptive, responding effectively and immediately to change promoted by implementation of the national ABS framework (i.e., laws, policies and/or regulations).	0 -- There is no implementation of the national ABS framework at the moment; 1 -- Institutions do change but only very slowly; 2 -- Institutions tend to adapt in response to change but not always very effectively or with some delay; 3 -- Institutions are highly adaptive, responding effectively and immediately to change.	1	The national ABS framework is not yet in place and the state framework is relatively recent, so it is hard to assess the adaptive nature of the institutions at this time.
	The ABS institution(s) has effective internal mechanisms for monitoring, evaluation, reporting and learning on ABS projects	0 -- There are no mechanisms for monitoring, evaluation, reporting or learning; 1 -- There are some mechanisms for monitoring, evaluation, reporting and learning but they are limited and weak; 2 -- Reasonable mechanisms for monitoring, evaluation, reporting and learning are in place but are not as strong or comprehensive as they could be; 3 -- Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning.	1	The Council has powers to request monitoring, evaluation and reporting, with limited implementation to date. These issues are discussed in Council meetings at present.
	Individuals from ABS institutions are adaptive and continue to learn	0 -- There is no measurement of performance or adaptive feedback; 1 -- Performance is irregularly and poorly measured and there is little use of feedback; 2 -- There is significant measurement of performance and some feedback but this is not as thorough or comprehensive as it might be;	0	There are general government staff evaluation systems in place, but not specific to technical subjects like ABS. Participation in wider ABS related programmes may offer opportunities for adaptive learning, but not specifically through the institution.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
		3 -- Performance is effectively measured and adaptive feedback utilized		

Baseline score: 23 out of possible 66 = 34.85%

Annex 3.Knowledge, Attitudes and Practices (KAP) Assessment Approach

As part of the project's monitoring and evaluation system, knowledge, attitudes and practices (KAP) assessment surveys will be conducted as part of **Output 2.5** targeting specific groups (ILCs, researchers and relevant industries and general public) that may use or benefit from ABS transactions in order to determine the project's impact on awareness levels concerning the national ABS law, CBD and the Nagoya Protocol; as well as on the values of biological resources among selected ILCs.

These will include baseline surveys at the start-up of the awareness raising activities for specific target groups, and repeat surveys following the same methodologies at project completion. This work will be contracted to a service provider, with requirements to liaise closely with the project's implementing partners in the design and implementation of activities.

1. Introduction

The purpose of a KAP survey is to understand the current status and gaps in the knowledge, attitudes and practices of the target groups on specific issues, so as to design intervention programs to enhance knowledge and change the attitudes and practices of the target groups towards desired goals. The planned KAP assessments for the present UNDP/GEF project aim to provide the project team and national stakeholders with a more detailed understanding of public opinion concerning ABS issues in Malaysia as well as the awareness level of ILCs, researchers and relevant industries regarding their rights or obligations in ABS context.

The planned baseline KAP surveys will assess pre-project implementation levels of knowledge for specific target groups including the following subjects[55]:

For the targeted researchers and industries:

The knowledge about their obligations under the ABS laws, which are to follow the access procedures, to obtain PIC of, and to share benefits with the provider of biological resources and associated traditional knowledge, and compliance of ABS laws by their research counterparts; attitudes towards such additional obligations; attitudes towards benefit sharing and its implication on conservation and sustainable use of biodiversity; attitudes towards respecting the rights of indigenous and local communities; and practices that currently being undertaken for research and development on biological resources and associated traditional knowledge.

For the targeted ILCs:

[55] Note – these subjects should be reviewed and confirmed at the start of this activity

Knowledge of their rights as enshrined in the ABS laws, the CBD and the Nagoya Protocol; attitudes towards the concept of ABS; attitudes towards the role played by ABS in biodiversity conservation and poverty alleviation; practices currently being undertaken when dealing with external actors; and understanding of the value (current and potential) of the natural resources under their stewardship in theABS context.

For others:

The understanding of the concept of ABS; awareness towards the national ABS law, the CBD and the Nagoya Protocol; attitudes towards ABS; attitudes towards the role played by ABS in biodiversity conservation and poverty alleviation; and practices currently being undertaken by relevant stakeholders in accessing biological resources and associated traditional knowledge.

The results of the baseline surveysare intended to be used as indicators to measure project impacts on stakeholder perception and behaviour. They will also inform the design of the awareness campaign and communication strategy for the project (see **Output 2.4**).

The same survey methodology will be applied to the same target groups at the end of the project following the completion of awareness activities in order to assess changes in levels of awareness and changes in attitudes and practices that may be attributable to the project's intervention. The results will be included in the project completion report and applied to the relevant indicator presented in the project's Strategic Results Framework.

2. Survey Methodology

Both qualitative interviewsand quantitative surveys will be used to collect data.

The quantitative survey with questionnaires will be applied to collect data from the following target groups[56]:

- 100 officials from line ministries (in Kuala Lumpur) and related departments at state level (13 states), including NRE, MOSTI, MOH, Economic Planning Unit, Forestry Department, etc.
- 50 elected representatives (Members of Parliament and State Assemblies)
- 100 managers and technicians from biotechnology related enterprises
- 100 managers and staff from international, national and local NGOs, including both environment and social NGOs
- 50 journalists (both environment and non-environment journalists) and from media, with a focus on influential media
- 100 university staff and students, half in environment-related majors, and half in law- related majors.
- 200 respondents from rural communities: the communities should be selected near

[56] Note: the target groups and sample sizes should be reviewed and confirmed at the start of this activity

thepilotproject areas in Kedah, Perak, Sabah and Sarawak.

In addition, a qualitative interview guide will be developed for in-depth discussions with the representatives from the above target groups, focusing on understanding the information needs and their preferred information channels, so as to develop the communication strategy.

The surveys and interviews will be mainly carried out by face to face, supported by telephone and e-mail.

3. KAP Components

The survey questionnaires cover 4 components: Knowledge, Attitude, Practices, and Information Needs.

Knowledge. This part mainly includes the questions to ask the respondents fora self-assessment oftheir knowledge related to ABS and biodiversity conservation; understanding on the concepts; awareness of the policies and regulations related toABS / biodiversity conservation;their obligation under the ABS laws, which is to follow the access procedures, to obtain PIC of, and to share benefits with the provider of biological resources and associated traditional knowledge, and compliance of ABS laws by their research counterparts; rights as enshrined in the ABS laws, the CBD and the Nagoya Protocol;

Attitudes. This part aims to record the respondents' opinions on the importance attached to biodiversity conservation, relationship between economic development (or poverty) and conservation, , attitudes towards additional obligations to fulfill ABS requirements; attitudes towards respecting the rights of indigenous and local communities;

Practices. This part asks the respondentsabouttheir activities to conserve biodiversity, integration of biodiversity/ABS into development plans or enterprise strategiespractices that currently being undertaken for research and development on biological resources and associated traditional knowledge; practices currently being undertaken when dealing with external actors;

Information Needs. This part mainly asks the respondents about their sources of information, suggestions for information dissemination, and information requirements.

4. Data Processing

The quantitative data will be inserted into excel spreadsheets, and descriptive statistics will be used to process the data. The percentage and means will be calculated. The data will be disaggregated among different target groups. The qualitative data will be analyzed by the main issues and themes arising, and used to supplement the quantitative data. The data results will be used to analyze the gaps in knowledge, attitudes and

practices regarding ABS / biodiversity conservation, and to develop the project's communication strategies to increase national capacity and understanding of ABS issues. The results of these surveys will be used as indicators to measure project impacts on stakeholder perception and behaviour.

Annex 4. Environmental and Social Screening Summary

Annex 4. Environmental and Social Screening Summary

Name of Proposed Project: Developing and Implementing a National Access and Benefit Sharing Framework in Malaysia

A. Environmental and Social Screening Outcome

Select from the following:
☐ Category 1. No further action is needed
☐ Category 2. Further review and management is needed. There are possible environmental and social benefits, impacts, and/or risks associated with the project (or specific project component), but these are predominantly indirect or very long-term and so extremely difficult or impossible to directly identify and assess.
☒ Category 3. Further review and management is needed, and it is possible to identify these with a reasonable degree of certainty. If Category 3, select one or more of the following sub-categories:
☒ Category 3a: Impacts and risks are limited in scale and can be identified with a reasonable degree of certainty and can often be handled through application of standard best practice, but require some minimal or targeted further review and assessment to identify and evaluate whether there is a need for a full environmental and social assessment (in which case the project would move to Category 3b).
☐ Category 3b: Impacts and risks may well be significant, and so full environmental and social assessment is required. In these cases, a scoping exercise will need to be conducted to identify the level and approach of assessment that is most appropriate.

B. Environmental and Social Issues (for projects requiring further environmental and social review and management)
In this section, you should list the key potential environmental and social issues raised by this project. This might include both environmental and social opportunities that could be seized on to strengthen the project, as well as risks that need to be managed. You should use the answers you provided in Table 4.1 as the basis for this summary, as well as any further review and management that is conducted.

1.2 Are any development activities proposed within a legally protected area (e.g. natural reserve, national park) for the protection or conservation of biodiversity?
Yes – the project will support pilot projects that seek to demonstrate best practice in Prior Informed Consent processes and Access and Benefit Sharing agreements for bio-prospecting activities including the documentation, protection and application of traditional knowledge and sustainable propagation of source material (native plants). Some pilot activities will take place in legally protected areas (to be confirmed). The pilot activities will be led by government organizations involved in conservation and will have no negative impacts on conservation.

4.4 Will the proposed project have variable impacts on women and men, different ethnic groups, social classes?
Yes. The project aims to ensure the sharing of benefits to indigenous and local communities in various situations through its pilot projects aiming to demonstrate best practice Prior Informed Consent processes and Access and Benefit Sharing agreements. These pilots will generally benefit the concerned communities, most of whom have low socio-economic status. Women will be proactively considered for involvement in project-related activities.

4.6 Will the project have specific human rights implications for vulnerable groups?
Yes – but the implications are positive. The project aims to put in place a national framework for Access and Benefit Sharing (ABS) in Malaysia that embodies CBD requirements for Prior Informed Consent and Mutually Agreed Terms in ABS agreements, including the fair and equitable sharing of benefits. The project will also support the documentation, protection and application of traditional knowledge of indigenous and local communities, contributing both towards cultural survival and long term potential for commercial benefits.

8.1 Is the proposed project likely to have impacts that could affect women's and men's ability to use, develop and protect natural resources and other natural capital assets?
Yes. ABS agreements will include conditions on access to natural resources, although such conditions are normally imposed to control access by the resource user (bio-prospector), such as the quantity and frequency of collection by the resource user; and not to control the resource provider. Prior Informed Consent processes undertaken during these pilot projects will ensure that such agreements are fair and equitable on Mutually Agreed Terms.

9.2 Would the proposed project result in secondary or consequential development which could lead to environmental and social effects, or would it have potential to generate cumulative impacts with other known existing or planned activities in the area?
Possibly. The successful development of commercial products through the pilot projects could lead to future increased demand for cultivating specific plants, etc. that are shown to provide economic benefits. However, one of the principles for bio-prospecting permitting is to ensure that exploitation of the biological resources is conducted in a sustainable manner, and this is expected to be included in any related agreements. The risk of overharvesting may be mitigated by financially and technically supporting indigenous and local communities to plant those resources needed.

C. Next Steps(for projects requiring further environmental and social review and management):

In this section, you should summarize actions that will be taken to deal with the above-listed issues. If your project has Category 2 or 3 components, then appropriate next steps will likely involve further environmental and social review and management, and the outcomes of this work should also be summarized here. Relevant guidance should be obtained from Section 7 for Category 2, and Section 8 for Category 3.

Environmental Impacts:
The development goal of this project is to contribute towards the conservation and sustainable use of globally significant biodiversity in Malaysia. This will be achieved through enhanced national contribution towards the achievement of the three objectives of the CBD (especially Objective 3 on Access and Benefit Sharing). As such, the project is designed to have an overall positive long term impact on Malaysia's natural environment and biological resources, adding value to the sustainable management of its rich forest, wetland and marine ecosystems.
The most likely environmental concern relates to the potential for development of commercial products through the pilot projects that could lead to future increased demand for cultivating specific plants, etc. that are shown to provide economic benefits. However, one of the principles for bio-prospecting permitting is to ensure that exploitation of the biological resources is conducted in a sustainable manner, and this is expected to be included in any related agreements. Also the advancement of technology allows the development of synthetic compounds which could significantly reduce future reliance on raw materials.
Social Impacts:
Similarly, the Access and Benefit Sharing regime that the project aims to put into place will meet CBD requirements, ensuring the protection of traditional knowledge belonging to Malaysia's diverse population of indigenous peoples and the fair and equitable sharing of benefits from the development of biological resources among all concerned parties. This will be a significant improvement on the current situation, where no such protection exists.
The ABS agreements resulting from the pilot projects will be developed through Prior Informed Consent processes which will ensure proper consultation and recognition of indigenous peoples' concerns. These will include Mutually Agreed Terms relating to the access and use of the concerned resources.
Women will be proactively considered for involvement in project activities (such as collecting samples of bio-resources, documentation of traditional knowledge, cultivation of plants for research and development, etc). Access and Benefit Sharing agreements are expected to include the fair and equitable distribution of benefits within concerned indigenous and local communities.

D. Sign Off

Wan Hasnah Wan Mohd
National Project Director, NRE — Date: 2/7/2013

James Cracko
PAC — Date: 2/7/2013

Hariharan Ragavan
Programme Manager, UNDP — Date: 2/7/2013

Annex 5. Letter of Agreement for UNDP Direct Project Services

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT FOR THE PROVISION OF SUPPORT SERVICES

Dear Puan Wan Hasmah Bt Wan Mohd,

1. Reference is made to consultations between officials of the Government of Malaysia (hereinafter referred to as "the Government") and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant programme support document or project document, as described below.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the programme/project:
(a) Identification and/or recruitment of project and programme personnel;
(b) Identification and facilitation of training activities;
(c) Procurement of goods and services;

4. The procurement of goods and services and the recruitment of project and programme personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the programme support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a programme or project, the annex to the programme support document or project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.

5. The relevant provisions of the Standard Basic Assistance Agreement, 12 September 2013 (the "SBAA"), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the programme support document or project document.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the programme support document or project document.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programmes and projects.

Yours sincerely,

Signed on behalf of UNDP

[Resident Representative]

For the Government
Wan Hasmah Wan Mohd
Under Secretary, Biodiversity and Forestry Management Division,
Ministry of Natural Resources and Environment
[29 August 2013]

Attachment

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between **Ministry of Natural Resources and Environment**, the institution designated by the **Government of Malaysia** and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project **Developing and Implementing a National Access and Benefit Sharing of Biological Resources Framework in Malaysia, (PIMS 5191)**.

2. In accordance with the provisions of the letter of agreement signed on **29 August 2013** and the project document, the UNDP country office shall provide support services for the Project as described below.

3. Support services to be provided:

Support services (insert description)	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
1.Hiring of project management staff	Will be determined during the inception of the project	Using the latest Universal Price List	Will be deducted from the budget of the project
2. Purchase of goods like equipments and computers	Will be determined during the inception of the project	Using the latest Universal Price List	Will be deducted from the budget of the project
3. Hiring of consultants	Will be determined during the inception of the project	Using the latest Universal Price List	Will be deducted from the budget of the project

4. Assistance may consist of any other form which may be agreed by the Government and the UNDP.

5. Description of functions and responsibilities of the parties involved:

- MNRE to determine the type of services to be provided by UNDP, in line with the AWPs.
- MNRE will be consulted by UNDP in the process of providing the support services.
- UNDP will conduct all provision of services using UNDP's procurement/recruitment rules.
- UNDP will update MNRE, quarterly, on the cost of the provision of the services.

6. All decisions related to support services provided by UNDP shall be made upon agreement/approval by the Government.