Signature Page

Country: People's Republic of China

UNDAF Outcome:	Outcome 3 – More efficient management of natural resources and development of environmentally friendly behaviour in order to ensure environmental sustainability
Expected CP Outcome:	Outcome 6: End-use energy efficiency and application of new and renewable energy technologies improved
Government Implementing Partner:	China International Centre for Economic & Technical Exchanges (CICETE)
Government Cooperating Agencies:	Ministry of Water Resources (MWR); Provincial Governments and departments: Chongzhou Municipal Government; Heilongjiang Department of Science and Technology; Xinjiang Institute of Ecology and Geography, CAS;
Private Partnership:	Coca-Cola China Beverages Limited (CCCBL)

Estimated start date: September 2007
Estimated end date: September 2011
Management Arrangement: National Execution (NEX)
Project site: Beijing, Sichuan, Heilongjiang, Xinjiang and Liaoning
Beneficiary country: China

Total Budget: US$5.892 million

Allocated Resources:
Regular (UNDP): US$ 1.542 million
Government (C/S): US$ 4.2 million
Third party (C/S) (CCCBL): US$ 0.15 million[1]

Agreed by:

	Signature	Date	Name and Title
Government/ Implementing Partner （CICETE/MOFCOM）:		7/9. 2007	Wang Yue Director General
Cooperating Agency (Ministry of Water Resources):		2007年9月25日	Pang Jinwu Deputy Engineer General
UNDP:		08 October 2007	Subinay Nandy Country Director

[1] Estimated minimum funding – in-kind contribution not included here

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United Nations Development Programme
Government of the People's Republic of China

Project Document

Improved Water Resources Management and Drinking Water Safety in Rural Regions of China (WRM)

The proposed project is aimed to support government efforts to improve water resources management and drinking water safety in rural regions of China with priorities given to the western and northern region and communities of ethnic minorities who are ecologically fragile, economically disadvantaged and geographically remote. This will be done through the combination of water resources management and environmental/health protection measures. The approach will be balanced with socio-economic development to assist in improving drinking water safety and alleviating poverty in Chinese rural areas and to provide the basis for future sustainable development.

The project seeks to improve human development outcomes among targeted groups through strengthening institutional support mechanism and linkages to facilitate and encourage needs-based response at the community level. A series of sound water resources management, drinking water safety and environmental protection technologies will be offered to and selected by targeted poor households on a voluntary basis. Efforts will be made to build up policy mechanisms to support improved water resources management and drinking water safety. The project will include four demonstration projects include: 1) water resources management and waterborne disease control in Chongzhou city of Sichuan province; 2) non-point source pollution control and safe water supply in Shuangcheng county of Heilongjiang province; and 3) water resources management and demonstrative eco-rehabilitation construction in the mainstream areas of Tarim river basin in Xinjiang autonomous region; 4) improving access to safe drinking water in a target community in Shenyang city of Liaoning province.

The successful implementation of the project will depend on the development of effective partnerships between numerous different agencies at multiple levels. The partnership strategy in the project includes international, national, local, institutional, technical and private commercial (CCCBL) partnerships.

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
APR	Annual Progress Report
CAS	China's Academy of Sciences
CBD	Community Based Development
CCCBL	Coca-Cola China Beverage Limited
CICETE	China International Centre for Economic and Technical Exchanges
CSO	Civil Society Organisation
DFID	Department for International Development
EU	European Union
GEF	Global Environment Facility
GOC	Government of China
GWP	Global Water Partnership
IFAD	International Fund for Agricultural Development
MDGs	Millennium Development Goals
MOFCOM	Ministry of Commerce
MWR	Ministry of Water Resources
NEX	Nationally Execution
NDRC	National Development and Reform Commission
NGO	Non-Governmental Organization
NPD	National Project Director
NPMO	National Programme Management Office
NSC	National Steering Committee
PMO	Project Management Office
PPP	Public Private Partnerships
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WB	World Bank
WFP	World Food Programme
WGF	UNDP Water Governance Facility
WHO	World Health Organization

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SECTION I. RATIONALE AND STRATEGY

Part 1.1 Situation Analysis

Water is one of the most important natural resources to mankind. It is closely bound up with socio-economic development and people's living. In China, as the enormity of rural population and the prominent position of agriculture in national economy, rural areas have become the principle member of water consumption. However, pursuing aims of high economic development in these areas has raised many water quantity- or quality-related issues. Meeting demands under limited water resources and ensuring access to clean water for rural areas have become critical environmental challenges that China confronts. Over the past decades, the Chinese government has made significant efforts in mitigating the difficulties in supplying safe drinking water for rural areas. China's central government has invested a total of RMB 8.5 billion since 2000 in addition to international assistance, local governments and people's self-funding, solving more than 50 million rural people's drinking-water difficulties. However the situation is still far from optimistic. Currently, over 300 million rural Chinese residents still have no access to safe drinking water, facing problems of shortage as well as severe contamination and subsequent health threats. Four major issues on supplying safe drinking water in the rural areas are illustrated as below:

(i) Regional and Temporal Shortage of Water Resources

While China's freshwater resources (2800 billion m3) rank fourth in the world, the amount of water resources per capita is only one fourth of that of the world's average. The precipitation of China is unevenly distributed in terms of season and space. This kind of intensive fluctuation by seasons and areas results in the resource-oriented water scarcity in north and western China and the seasonal water scarcity in the south. In addition, the complicated geographic status and the unbalanced economic development worsen deficiency of drinking water that has long existed in the rural areas. Global warming also raises serious concerns about the future volume and timing of river flows, and may significantly impact availability of water resources. Undoubted, the supply of water for rural areas will become a major restrict for economic development in the whole country.

The uneven spatial and temporal distribution of the precipitation makes the country's rural areas become one with frequent occurrence of flood and drought disasters. This would bring tremendous impacts to rural areas in western and north China where irrigation-based agriculture heavily relies on water supply and fragile ecosystem and laggard level of socio-economic development exist.

(ii) Contaminated Water Resources and Increased Threat of Water-Borne Diseases

More than 90% of water body in rural areas all over the country are polluted to different extent, where most of the water quality cannot meet the requirement of drinking water standard. Nearly 50% rivers above ground are running black at grade 5 (not suitable for agriculture or industry). With the increase of population and the development of economy, the pollution of water body will be more and more serious. The Chinese government publicizes that over 300 million rural people drink contaminated water, 190 million of whom

are drinking water that is contaminated enough to make them sick.

At present, industrial and domestic wastewater in many rural regions discharges directly into surface/subsurface water bodies. Less than 20% has been treated to reach the stipulated discharge standard. Besides pollutants from small and medium rural industries, point sources of water pollution from animal factory farms (perhaps the largest source of pollution), produces a total of 2.7 billion tons of livestock manure annually; 3.4 times the industrial solid waste generated nationwide. Non-point source (NPS) pollution from crop and livestock production causes contamination of water resources which is much more difficult to control than point-source pollutions. NPS is primarily caused by farmers applying too much fertilizer (particularly nitrogen) and pesticide and applying them improperly, causing serious environmental damage with global, regional and local impacts.

As many rural residents rely heavily on polluted drinking water sources, the content of micro-organisms and poisonous materials contained in water greatly exceeds the limitation and makes water one of the major mediums to induce and spread diseases, including tumour, cancer, spontaneous abortions and diminished IQs. Rural residents in China draw 70% of their drinking water from groundwater sources. Between 50% and 90% of the groundwater, however, is contaminated by agricultural runoff, rural industrial and domestic wastewater and in some areas, even toxic mine tailings. Due to the influence of the chemical components of groundwater, the high-florin water and salty water are distributed widely in the areas of northeast and north China ,and the plain covering Yellow River, Huai River and Hai River basins, which is the cause of many aqueous endemics if often drunk, such as skeleton metamorphose and weak wisdom. Widespread pollution to China's rural water supplies has also resulted in troubling social and economic repercussions.

(iii) Inefficient Water Resources Management

The Chinese government at all levels is playing a major role in tackling problems of safe drinking water in rural areas through providing managerial, financial, technological, and legislative supports. Despite the great progress that has been made, outcomes are still less successful than expected due to poor management.

A lack of general planning and supervision on the usage of water resources leads to low efficient management of public water infrastructures. Widely established in rural areas, small-scale water projects, including water-saving irrigation, drinking water for human and livestock, and rural hydropower, are characterized by their small size, large amount, and wide scopes, leading to difficulties of maintenance and management with inefficient governmental coordination and confusion in the distribution of authority among responsible departments. Multi-departmental management of water resources is also one of the managerial issues. There is no uniform management system and each department has its own jurisdiction causing overlaps of their purview and conflicts, making the government's water resources management disordered and inefficient.

A shortage of effective policies, law, rules, regulations and specifications has led to difficulties in solving rural water drinking problems. Statistics have shown that in the course of solving water supply problems, there is a lack of many related regulations and standards, such as ordinance on water supply in rural areas, evaluation guideline for safe drinking water

in rural areas, and technical specifications for water supply projects in towns and villages. Weak enforcement of current regulations is also a big issue that inhibits effective water resources management.

In addition, the establishment of complete standards for drinking water quality is still underway in China. The first national standard for drinking water "Daily Drinking Water Sanitation Standard" was made in 1959, with 16 indices totally; the indices were increased to 23 items in the revised edition in 1976; and were further increased to 35 items in the second revised edition in 1985. This standard is very weak compared with the "Guide for Drinking Water Quality, 2nd Edition" provided by WHO, which lists 135 indices. Since 1985, the Chinese government has failed to update its standards, leaving many contaminants (e.g. nitrites, bromates and flagellates) all of which can cause serious health problems outside the realm of environmental governance.

Another issue related to improper policy is the unreasonable water prices. The rural water price in many areas is rather low and cannot reflect water supply cost to a large extent. In some areas, water can be used absolutely free. The low water price shows the government's favour to the peasants' interests. But it also continues the unceremonious water policy before any reformation and discourages the peasants' willingness and consciousness in water saving, leading to less efficient usage of water resources in rural areas.

(iv) Lack of Scientific and Technological Support

Rapid advances in science and technology has played extremely important role in promoting the implementation of sustainable development strategy, particularly in the areas of water resources management. However, applying any newly developed water-saving or hygiene-improving measures into current water resources management in rural areas still faces many difficulties. One of the main reasons is the lack of effective training or educational programs for peasants. The local government in many areas provided financial support for enhancing efficient usage of water resources, but failed to pay much attention in giving instructions and developing effective demonstration projects. Under this condition, the peasants need scientific and technological supports from a variety of sources (e.g. governmental, industrial, or international) and develop more devotion in water saving technologies and water treatment projects.

Over the past decades, it is also an undisputable fact that the rural government is facing difficulties in dealing with long-standing complex issues related to water resources allocation, emergency responses, policy analysis, and environmental planning. Many studies have demonstrated that such a complex issue can only be effectively handled by developing well-designed decision support tools based on multidisciplinary scientific and technological supports (e.g. information technology, simulation, optimization and uncertainty analysis). However, there has been a lack of such practical options in most of the Chinese rural areas for enhancing government capabilities for an integrated management.

Part 1.2 National Initiatives

The United Nation's Millennium Development Goals (MDGs) target for water and sanitation aims to reduce by halving the numbers of people without sustainable access to safe drinking water and basic sanitation by 2015.

In China, water resources issues are a high priority for the government, particularly given implications on reasonable utilization of water resources and drinking water safety in rural regions. Chinese President Hu Jintao repeatedly emphasized that every effort should be made to prevent rural people from unsafe drinking water no matter how difficult it would be. On the Workshop of Population, Resources and Environment 2005, he stressed that the first priority of hydro-circle is to protect water source and make drinking water accessible. On August 30, 2006, Chinese Prime Minister Wen Jiabao presided over an executive meeting of the State Council and in principle approved to include the Drinking Water Safety Planning of China's Rural Areas within the framework of the "11th Five-year Plan".

Over the past decades, the Chinese government has conducted a series of actions and implemented a number of policies to solve the difficulties in drinking water supply in rural areas: 1) taking the rural drinking water works as the key public small-size infrastructure to support; 2) regarding it an important responsibility of government at all levels to settle the problem of drinking water in rural areas; 3) listing the drinking water safety as the priority of the water-related work; 4) exploring the most effective management measures that fit the rural areas during the construction of water works; 5) consistently reforming and improving the management system and operational mechanism; 6) strengthening the management of drinking water industry in rural areas. The National Development and Reform Commission (NDRC) and the Ministry of Water Resources (MWR) have jointly issued the *Deliverance on Further Solving Drinking Water Difficulties in Rural Areas*. The MWR has formulated the *Deliverance on Strengthening Water Supply Project Management in Villages and Towns*, and is working out other regulations and standards such as *Ordinance on Water Supply in Rural Areas, Evaluation Guideline for Safe Drinking Water in Rural Areas, Staff Positioning for Water Supply Stations in Towns and Villages, Qualification for Water Supply Units in Towns and Villages, Technical Specifications for Water Supply Projects in Villages and Towns*, etc.

With the support of the policies and measures as mentioned above, China has obtained evident achievements in the process of improving the rural people's water-drinking conditions. The implementation of the Project of Solving Drinking Water Difficulties has brought up tremendous economical, social and ecological benefits for rural areas. In the past 5 years, China invested 20 billion RMB (2.5 billion US dollars) in drinking water facilities building. Accumulatively 250 million people throughout the country have been helped out of the drinking water difficulties. Till the end of 2004 the drinking water supply difficulties in rural areas were basically solved and in the next step the Ministry of Water Resources will shift their focal points toward the safety of the water.

The 11th Five-year Plan indicates that the next 5-year development is of great importance for China's efforts in building up socialistic new countryside, establishing all-round well-off and harmonious society. China plans to solve the problem of drinking water safety for 160 million rural residents during the Eleventh Five-Year Plan period (2006-2010) and the government will strive to completely solve the problem of rural drinking water safety before the year of 2015.

Although China has achieved great achievements in water supply in rural areas, many people, especially those who live in mountainous areas, pasturing areas and some places which are stricken by severe droughts, still suffer serious drinking water shortage. The complicated geographic status and the unbalanced economic development worsen deficiency of drinking water that has been existing in the rural areas for quite a long time. Poor water quality in some areas was also very serious. Drinking water safety in rural areas has become one serious problem that is most concerned by the people, and also is the most urgent problem to solve. In the future, in order to accommodate to the requirement of building a well-off society in an all-round way, and on the basis of effectively solving current drinking water problems, China will shift its working focus from drinking water difficulty to drinking water safety.

Part 1.3 International Assistance

The UN Development Assistance Framework (UNDAF) harmonizes the development assistance of UN agencies in China and supports government initiatives through multi year programming cycles that respond to prioritized needs. Particularly, it will contribute to China's efforts in building a Xiaokang (all round, moderately prosperous) and harmonious society for all Chinese people and in achieving the Millennium Development Goals (MDGs). On the basis of the Xiaokang vision, in the 2006-2010 UNDAF, the UN system in China has identified the following, "better management of its natural resources to ensure environmental sustainability", as one of the priority areas where the United Nations system can provide some added value based on its comparative strengths.

The project is closely linked with UNCT prepared *Partnership for the Governance of Water and Sanitation in China* which is a newly proposed MDG-Fund UN water flagship joint programme. The JP aims to assist China in its reform of what is arguably the world's largest conglomeration of water and sanitation utilities; to foster participation by the poor and marginalized and increase the transparency of decision-making related to water and sanitation utilities such that this becomes a model for other sectors; to help China engage in public-private partnerships in the water and sanitation sector, again as a model for other sectors. This will be done by developing innovative pilot schemes and technologies as models for market-based initiatives and public-private partnerships. During the formulation process of the UN JP, WRM project information has been shared with UNCT and the WRM project will continuously closely link to the UN overall water programme during its implementation.

This proposed project contributes to one of the National Priority: "Balancing People and Nature", and to Outcome 3 of the UNDAF, "more efficient management of natural resources and development of environmentally-friendly behaviour in order to ensure environmental sustainability (with special focus on energy, biodiversity and water resources)". It aims towards more efficient use of water resources and better access to clean and safe drinking water. This includes improved water governance at the central and municipal levels and capacity building for water quality surveillance and policy implementation. The UN system will support the government in taking on the issues of arsenic and bacterial water contamination, which complements the collaboration on innovative approaches to water supply, on access to safe drinking water and improved water management for irrigation purposes.

The current UNDP Country Program[2] also recognizes that balancing economic growth and the environment is a pressing challenge for China. Strengthening environmental governance and promoting 'green growth' are enormous challenges that require enhanced cross-sector coordination, comprehensive planning, and effective monitoring. UNDP will support the strengthening of disaster management efforts for natural and industrial, particularly mining sector related disasters. Assistance will also be extended to the implementation of the Risk Management Plan. UNDP projects focusing on management of natural resources in China have been undertaken in recognition of the fact that actions to curb air and water pollution are still insufficient despite efforts by the government and civil society. China's challenges require innovative thinking and fresh approaches to environmental protection. Internalizing environmental costs into planning and decision-making are crucial when looking for sustainable solutions. UNDP supports the Chinese government in integrating its environmental commitments with national development goals and macroeconomic policies. UNDP's experience in tackling complex challenges across many areas of development enables it to help countries address the social and economic dimensions of environmental management and energy use.

UNDP is helping to catalyze efforts toward achievement of the MDGs through its Water Governance Programme. UNDP's Water Governance Programme is active in over 150 countries, in four thematic areas of support: water Supply, sanitation, transboundary waters management, and water resources management. Partners include governments, bilateral and multilateral donors, UN agencies, NGOs and private sectors. This aims to help partner countries fight poverty and achieve sustainable development through global advocacy, policy development and coordination of action, and by bringing water-resources management, water supply and sanitation into national development plans. The *UNDP Water Governance Facility* works with the governance aspects of water challenges. It promotes improved water governance reform and implementation. The Facility works with multiple thematic areas that range from integrated water resources management, transboundary water and water supply and sanitation to climate variability, gender and capacity building. The project will also use resources of its WGF.

Experiences that could be well incorporated in the proposed project include:

- The United Nations World Water Assessment Programme (UN-WWAP) brings together 24 UN organizations with UNESCO playing a leading role in the effort. UN-WWAP, as a long-term programme, has been given the critical mandate to periodically assess the state of freshwater resources. The end product of this UN-system wide continuous assessment process is the World Water Development Report (WWDR), which offers an authoritative picture of the state of the World's fresh water resources and a description of critical problems. As UNESCO is planning 3rd version of UN-WWAP, if this research could able to come up with preliminary results there is a possibility to include the case of China in to the World Water Development Report III which is scheduled to publish 2008-2009.

[2] Draft country programme document for the People's Republic of China (2006-10), Executive Board of UNDP an UN Population Fund, 6 April 2005, DP/DCP/CHN/1

- FAO, in close cooperation with the Ministry of Water Resources (MWR), China National Committee on Irrigation and Drainage (CNCID), Wuhan University and Shanxi Provincial Government, has been introducing into China the new concepts, technologies and practical tools on irrigation modernization through training workshops, international conference, case studies and piloting since 2004. A cooperative study between FAO and CNCID on sustainability of water saving irrigation is also under going in South China, which takes into consideration the implications of large scale development of water saving irrigation on local environment and ecosystem.
- The Asian Development Bank (ADB) helped to develop the Tianjin Wastewater Treatment and Water Resources Protection Project to bring safer water and a healthier environment to nearly 10 million residents of Tianjin, the fourth largest city in China. This project is part of a comprehensive pollution prevention and control program for the Hai River basin.
- EU helped to establish integrated River Basin Management Practices(RBMP) in the Yellow and Yangtze River basins that are environmentally sustainable and address global environmental concerns as well as those of the local population and which will be replicated in other regions of China.
- The World Bank (WB) funded the (Changjiang) Yangtze and Pearl River Rehabilitation project, involving installation of bio-ecological and physical structures to the most fragile environments and other interventions to increase the efficiency of use of natural and local resources.
- Global Environment Facility (GEF) supported the Hai Basin Integrated Water and Environment Management Project to promote institutionally-coordinated and effective local and basin-wide water and environment planning and management, and enhance local capacity in water and environment knowledge management and implementation.
- IFAD aided seventeen projects in China which have concentrated on agricultural development or rural credit or both. Six of them have been co-funded by the World Food Programme (WFP). The main thrusts of IFAD's Strategic Framework in the country are equitable access to natural resources, finances and markets, and the strengthening of grassroots institutions.
- DFID established the Global Water Partnership Project to support China in the sustainable and equitable management of their water resources.

Part 2. Strategy

The goal of this project is to reinforce capabilities of water resources planning and management mechanisms; improve drinking water quality and status in the countryside; enhance water pollution control and the prevention of waterborne diseases, and promote ecological restoration and eco-agricultural development. This will be achieved through capacity building; on-site demonstration and public participation; nation-wide advocacy and a public-private partnership. Under this project, priority will be given to the rural region and ethnic minority communities.

2.1 Objectives and scope of the project

The project will utilize available science and technology as major inputs for improving water resources management and guaranteeing drinking water safety for local communities through an integrated strategy that combines capacity building with on-site demonstration, public participation and nation-wide advocacy based on a number of national policies, including:

- construction of new socialist countryside
- build a well-off society in an all-round way
- establishment of a harmonious society
- science-based development

The focus will be on strengthening the capacity of rural water governance and policy-making, improving water quality management, upgrading prevention and treatment levels against waterborne endemic disease, enhancing the capacity of water-source protection and eco-environment recovery, and encouraging private and public participation in community-based drinking water safety programs through a series of activities such as investigation, research, training, demonstration, education and awareness raising, and dissemination.

The project will also address gender concerns. Water is essential to sustainable development including empowerment of women. Without adequate participation of women in WRM, it will be difficult to reach the project outcomes. A strategy of gender mainstreaming will be developed to ensure issues that effect women and men are part of analysis, programme and project formulation, implementation, and evaluation. More importantly, gender mainstreaming can assist in bringing about institutional and organisational change necessary to ensure gender equality as an on-going commitment.

This project is comprised of five components:

1) Research on policy and law mechanisms;
2) Water governance and waterborne disease;
3) Non-point source pollution control and water source protection;
4) Water resources management and ecological rehabilitation in arid/semi-arid areas;
5) Awareness and improved access to safe drinking water.

For each component, a series of sound environmental, ecological and policy research activities will be conducted and relevant technologies will be offered to, and selected by, targeted institutions/regions on a voluntary basis. Based on this scientific research and technology deployment, pilot projects will be developed in order to demonstrate the benefits of the proposed approach. Each component will also include community awareness raising and education on water, hygiene, sanitation and health through targeted social mobilization programs at the demonstration sites. An independent technical advisory committee will work with project partners to systematically review, improve and chronicle project progress.

Component One - Research on policy mechanisms of water resources management and drinking water safety in rural areas

Overview

Drinking water is a fundamental factor and basic right for the existence of human beings. In China, nearly 312 million rural Chinese residents have no access to safe drinking water. To address this challenge, the central government has promised in its latest Five Year Plan (2006–2010) to make safe drinking water available to 160 million rural residents by 2010. Under the plan, priority will be given to areas that face contamination from fluoride, arsenic, salt, pollution, and the schistosoma worm, which can attack people's blood and liver and lead to schistosomiasis, or snail fever. The government has also set an ambitious target of providing all of China's rural residents with clean drinking water by 2013. This is two years before the MDG target schedule. China's budget of roughly 40 billion RMB (US$5 billion) for reaching its targets will be spent mainly on new water supply projects over the next 10 years. Meanwhile, it is desired to review and improve the integrated policy mechanism for science-based water governance, waterborne disease control, water resources management, and ecological conservation. This will be achieved by combining the development of policy and regulation, the implementation of laws and rules, and the advancement of standards and guidelines under various spatial scales impacting smaller and larger communities. A series of technical standards and the associated regulations, as well as policy mechanisms will be advanced and developed for achieving safe and accessible drinking water systems in an economically feasible way through science-based measures. These measures are intrinsically reflected within the process of water-source conservation, water collection, water purification, and water supply in accordance with the requirements of a series of national policies, including, as noted earlier: "construction of new socialist countryside", "build a well-off society in an all-round way", "establish a harmonious society", and "science-based development".

Key points

Key challenges of this project are: (a) how to improve the institutional capacity and policy mechanisms for both governmental organizations and NGOs; (b) how to build win-win relationships among different stakeholders in local areas; (c) how to obtain the latest technologies related to water governance, drinking water safety, and ecological conservation; (d) how to formulate technical standards and guidelines for the management of water resources and drinking water safety in the context of rural areas across the entire country; (e) how to put forward policies and regulations related to water resources management and drinking water supply in rural areas, etc. In addressing these challenges, it is proposed to:

- Conduct investigations and surveys on current policies and regulations of water-supply and drinking-water safety in national and international rural areas;
- Conduct research on policy mechanism and regulations, and their effects related to drinking water safety in rural areas in the world;
- Advance laws, regulations, and standards related to the management of water resources and drinking water safety in rural areas;
- Provide suggestions for policies, regulations, and technical standards for water resources management and drinking water safety in rural areas in China;
- Help set policy priorities in both short- and long-term water resources management and drinking water safety in rural areas;
- Facilitate community engagement in water policy dialogue and water resources management;
- Develop applicable tools and methods for ensuring sustainable utilization of water resources and eco-system services in rural areas, especially in those frontier minority regions, realizing the concept of "science-based development".

Overall aims and key activities

The overall aim of this component is to establish policy mechanism and technical standards to ensure drinking water safety and efficient water governance through researches on existing institutional framework, policy mechanism, technical standards, and management networks in rural areas in China. The proposed project includes the following main activities:

(1) Research and evaluate current policy, laws and rules of drinking water safety and make substantive recommendations to policy-makers for improvements:

- Review the studies on drinking-water baseline, law and rules in China;
- Evaluate national laws and regulations of rural drinking water safety and water resources management, and analyse the national security framework for rural drinking water safety;
- Review international policy mechanisms for drinking water safety in rural areas;
- Provide suggestions to facilitate the establishment of laws and regulations on rural drinking water safety and water resources management at both national and local levels.

(2) Explore management mechanisms for water source conservation and water quality improvement, including the following key activities:

- Investigate typical policy mechanisms and management frameworks in water source conservation and water quality improvement;
- Evaluate policy mechanisms and management frameworks in local areas and provide suggestion related to water resource management and waterborne disease control.

(3) Develop drinking water associations in rural areas, including the following key activities:

- Examine management, monitoring, and operation regulations and policies of drinking water associations;
- Investigate the organizing process, structure, and memberships of drinking water associations;
- Provide suggestions related to drinking water associations including gender related concerns in pilot site.

(4) Investigate international policy mechanisms for drinking water safety in rural areas, and make recommendations for China's water resources management and drinking water safety. The following key activities are included:

- Examine detection techniques, standards and policies of rural drinking water safety; strategies for eco-agriculture development based on rational utilization of water resources, strategies and management responses to emergencies in drinking water safety; technical standards or guidelines for the construction and operation of drinking water supply facilities and relevant infrastructures;
- Evaluate current management mechanism for rural drinking water safety in China;
- Provide suggestions on the management, evaluation, monitoring mechanism of rural drinking water safety in China, ;
- Provide suggestions on the long-term mechanism and charge policy for rural drinking water safety in China;
- Investigate farmer-involved management and allocation of water resources;
- Provide continuous training, workshops, and media exposure for related activities.

(5) Recommendations on mainstreaming Climate Change adaptation in water policy making process. Following key activities are included:

- Review of current situation on CC policies and research in water sector;
- Provide suggestions on adaptation policy recommendation framework in rural water resource management and water supply aspects;
- Activities on CCA awareness will be undertaken in programme activities (in pilot site and to be included in workshops).

Component Two - Water governance and waterborne disease control: Chongzhou city of Sichuan province

Overview

Chongzhou city (a prefecture-level city under the jurisdiction of Chengdu) is located at the western part of the Chuangxi Plain and is only 20 km away from Chengdu city, the capital of Sichuan province, and less than 30 km away from Shuangliu international airport. Its land area is 1,090 km^2, where about 52% belongs to the Chuangxi Plain while the rest lies in mountainous and hilly region (43% and 5%, respectively). The total population of Chongzhou city is 650,000, spread over 25 villages and towns. Rapid economic development and industrialization in Chongzhou city has been occurring since 2003 with flourishing investments and industrial and agricultural structural upgrades.

Rapid urbanization and industrialization of the city, however, has resulted in a large number of environmental and health-related concerns, such as soil erosions in mountainous regions, food and drinking water pollution, and water-borne diseases. Among them, the unsafe drinking water problem, especially in rural areas, arouses the most critical concern. There are 215,685 people who do not have access to clean water, accounting for 37.9% of the population in rural areas of the city. Furthermore, a large proportion of people live in widely dispersed communities over a large rural area, exacerbating the challenges of providing stable and sound water-supply facilities and efficient water treatment measures. It is therefore proposed that more efforts be dedicated to water governance, water resources management and safe-drinking water supply in rural areas for supporting sustainable economic development, poverty alleviation, and water-borne infectious disease control. Through these efforts and the proposed demonstration project, significant improvements are expected in:

- institutional and policy-making capabilities of local government in water governance,
- environmental protection and water-related issues awareness of local people

and that together these outputs will generate positive impacts on the lives of the people in these communities over the long term. This will both promote the implementation of "construction of new socialist countryside", and provide a necessary component of "science-based development" that is applicable to numerous locations in south China that are similar to Chongzhou city.

Key points

Key challenges of this demonstration project include: (a) how to involve and benefit poor farmers, especially women, in the rural areas; (b) how to resolve issues of water governance, safe-drinking water supply, and waterborne diseases, as well as water conflicts (in water quantity and quality) in an economically and environmentally efficient and socially equal

manner; (c) how to broaden water supply sources (e.g., precipitation collection and utilization) in a safe way; (d) how to make effective implementations for achieving water saving and water source-area conservation based on solid and flexible policy and institutional framework; (e) how to prevent water quality from deterioration due to industrial effluents as well as agricultural non-point pollution; (f) how to establish an effective and efficient early-warning system for stable water supply and reliable water sources; (g) how to conduct technology transfer, training and long-term education for the pilot areas; (h)how to address gender issue in water project management. In addressing these challenges, there is a need to:

- Provide technical and institutional support, perhaps through the formation of a farmers' association and associated market supply chain to keep them informed with policies and regulations related to water supply and management;
- Provide institutional and policy framework to support water governance, water borne disease control, and water resources management, as well as stimulate investment in water treatment, and clean water supply facilities;
- Provide tools and methods for supporting water resources management and water safety in rural areas.
- Provide supports for the development of a community drinking water association and for community mobilization around safe drinking water.

Overall aim and key activities

The overall aim of this demonstration project is to assist decision makers and stakeholders in enhancing capabilities in science-based policy making, development of governmental institutions and NGOs, clean and safe drinking water supply, as well as awareness improvement of water and environmental protection. The project will include the following main activities:

(1) Development of an interactive management mechanism and the associated institutions and regulations for guaranteeing drinking water supply in a safe manner in rural areas, including the following key activities:

- Assess commercial and technical feasibility of any construction works as well as their environmental impacts;
- Conduct systematic studies related to drinking water supply system and its planning according to requirements of "Building New Socialist Countryside", possibly including a water source vulnerability assessment, with active participation of local governments, farmers, as well as other stakeholders;
- Conduct a survey of situation from gender perspective. It should be considered of inclusion of gender specific activities in project implementation;
- carry out the construction works for "Weishui zhihan" to conserve water resources, reduce soil erosion, improve water-utilization efficiency, harmonize economic development and ensure ecological environmental protection;
- develop fair water-right allocation schemes and water association in a sustainable manner to guarantee farmer's interests during the process of poverty reduction and economic development, thus further explore science-based ways for achieving "Building Socialist New Rural Area";
- establish a mechanism to establish water pricing through hearings and consultations among key authority departments.

(2) Development of effective and efficient policy networks and frameworks for the control and mitigation of water pollution and water-borne infectious disease. This will be achieved through cooperation among various governmental authorities and the participation of indigenous stakeholders and will include the following key activities:

- conduct investigations related to water pollution control and treatment, water-borne disease control, water-saving measures, and community construction for "Building Socialist New Rural Area", thus establishing a effective technical and institutional mode and system which can integrate these components;
- develop effective control technologies and measures for water-borne diseases through co-operations of various public-service departments;
- devise an integrated evaluation index system for water source region, as well as human health risk assessment systems;
- develop "new rural areas" and modern communities in rural areas to centrally treat and disinfect domestic pollution;
- establish safe and reliable drinking water networks and relevant management regulations and policies in critical areas with water-borne disease;
- develop quick-response and applicable early-warning and emergency management frameworks.

(3) Development of an integrated mechanism and framework for co-jointly dealing with water resources management, water quality control (point and non-point sources pollutions), water-borne disease control, "Building New Socialist Countryside", "science-based development", and water conservation. Advocate best practices through a targeted demonstration project to include the following key activities:

- carry out construction of demonstration works for water-source conservation regions (technical training, construction of infrastructures and facilities);
- perform construction of demonstration works for precipitation collection and purification (technical training, construction of infrastructures and facilities);
- carry out demonstration works for the establishment of water-source conservation regions, which should be synchronize with major construction engineering works (mainly related to non-point pollution control);
- develop demonstration works for clean drinking water project (Baitahu water supply plant);
- activate community awareness raising and education through targeted social mobilization program on water, hygiene, sanitation and health
- conduct continuous training to increase the capacity of farming communities to achieve sustainable development with particular consideration of gender issues;
- conduct advocacy, media exposure, and workshops focused on the pilot project for publicizing lessons learned and advocating successful products and approaches.

(4) Explore frameworks for the allocation of water rights and water price determination, including the following key activities:

- Examine current status of water rights and water price in typical rural areas through public and media involvement;
- Analyse feasible ranges of water pricing in different rural areas in China;
- Provide suggestion related to water price auditing and management to maintain safe and clean drinking water supply in China.

Component Three - Non-point source pollution control and safe water supply in the rural areas: Shuangcheng City in Heilongjiang Province

Overview

The Shuangcheng city (a prefecture-level city under the jurisdiction of Harbin) is located on a branch of the Lalin River, of the Songhua River in the upper reach. It has a population of 800,000, with 75% living in rural areas. The region has now 54 large-scale industrial factories; however, the wastewater treatment facilities in them are inefficient and the discharges do not meet environmental standards. Some factories discharge wastewater directly into the river without any treatment.

Livestock husbandry is well developed in the region. There are 230,000 cows, 380,000 beefs, 890,000 pigs, and 11.67 million chickens. The Shuangcheng city has a manure generation rate of 6 million tonnes per year but no more than 20% of the manure can be handled and disposed. Large amounts of manure are simply piled up along streets and fields, resulting in serious odour and pollution problems.

Agricultural activities in this region, such as manure, fertilizer and pesticide applications, also bring about water quality issues. The fertilizer application rate is 127,000 tonnes annually. Based on the average utilization rate, 76,000 tonnes of fertilizer cannot be utilized by the crops. As a result, nutrients (e.g, nitrogen and phosphorous) in the fertilizer are washed away with the surface runoff and enter the local rivers and lakes, leading to eutrophication problems where excess concentrations of nitrogen and phosphorous occur. An investigation indicates that fertilizer losses have contributed 77.8% and 86.7% to the total nitrogen and total phosphorous in the river.

The construction of a sewer system and wastewater treatment system are lagging far behind the development of the city. The existing sewer system facilities are faulty and in some street blocks there is even no sewer system at all. Rainwater and wastewater are discharged to the Lalin River through a combined sewer system. In a storm, the sewer system cannot carry the increased water flow and thus pollutants flow directly into water bodies along with the run-off.

In addressing these problems, there is a need to effectively apply non-point source (NPS) pollution control and secure drinking water safety in the rural areas.

Overall aim and key points

The overall aim of this demonstration project is to establish a whole set of effective practices for non-point source pollution control and safe drinking water supply through applying related engineering measures, ecological measures and resource utilization of waste.

This would be achieved through the farmers' participation in water resources management and community organization development; promotion of NPS pollution control technology systems to engage farmers in establishing waer pollution treatment practices; synthetic treatment and recycling to control NPS pollution from solid waste; the water pollution investigation, monitoring and assessment to build a NPS pollution and drinking water safety

information system; and the sewage and wastewater treatment to prevent the pollution of Songhua River and secure the safety of the domestic water supply.

The project would include the following main aspects:

- Improve the capacity of local decision makers: improving the project management skills of local officials; establishing participatory decision-making process; training trainers and key decision makers by national or international experts; undertaking national and international study tours.
- Improve the capacity of farmers: establishing a farmers' association of water affairs in the selected demonstration area to represent local farmers and to act as a focal point for training and technical, commercial and policy support activities; improving the farmers' participatory management skills; training in technologies of agricultural production for farmers and technicians to increase the capacity of farming communities to achieve sustainable development with particular consideration of gender issues; training in participatory water pollution control and environmental protection.
- Advocate pollution control and water safety: undertaking local stakeholder consultations workshops; undertaking case studies to establish local residents' understanding of environment and health, and indigenous knowledge on agricultural activities and environmental protection; providing fundamental social education and easy access to information sources and support services; organizing teachers and students to participate in propagandizing for community environmental protection about rural drinking water safety in the country, clean production, integrative utilization of waste, organic agriculture, and ecological agriculture, such that families and communities are driven to protect water resources; activate community awareness raising and education through targeted social mobilization program on water, hygiene, sanitation and health.
- Provide scientific support: establishing solid waste diversion mechanism; promoting the agricultural technologies of: fertilizer application with prescription, plant diseases and pests prevention, water saving irrigation, stalk returning to field, storing stalk in green for feeding animals, etc.; utilizing ecological engineering measures to improve the environment's ability to depurate the water body, possibly informed by conducted a water source vulnerability assessment; producing organic fertilizer with composting and methane ferment of bio-degradable waste; assessing the situations of surface water pollution to provide local water quality and associated risks, as well as the feasibility of potential options; develop GIS-aided decision support based on NPS pollution simulation, real-time optimization and process control to allow farming communities, local government and other key decision makers to collaborate in local economical development, NPS pollution control and drinking water safety; conducting environmental impact assessment of NPS pollution and developing the mechanism and measures to deal with emergent water pollution incident.
- Demonstrate and disseminate: installing and demonstrating the application of wastewater treatment plant for the pilot region; rebuilding the main pipelines of drainage to improve the drainage status in towns and rural areas, and thus reduce the impact of water pollution on Songhua River from drainage problems; disseminating the results and lessons of the project to a wider audience.

This demonstration project conforms to the principles of "Building Socialist New Country" and agricultural sustainable development, and offers safeguards for safe drinking-water supply in the city. It will be a model for possible later replication on a larger scale in other Chinese rural areas.

Component Four - Water resources management and ecological rehabilitation in the mainstream area of Tarim river basin in Xinjiang Autonomous Region

Overview

Covering an area of 1.02 million km^2, the Tarim river basin is the largest inland river basin in China with a population of 10 million, of which ethnic minorities account for the majority of the population. It is also the most arid and fragile region in western China and in central Asia, being surrounded by huge mountains and being remote to oceans. The Tarim River relies heavily on snowmelt water from high-altitude zones to flow through the desert. Thus most flow concentrates in summer time with spring/winter always experiencing water shortages which would be aggravated under the projected global and regional climate change scenarios. At the same time, the long-term, large-scale land reclamation since the beginning of 20^{th} century has caused dramatic changes in the water resources situation in this region, resulting in severe damages to the local ecosystem. Desert occupies large areas of grassland and poplar forest and even the drought-tolerant plants are dying due to unreachable groundwater. This serious water resources situation and degenerated ecosystem directly endanger the local communities and have resulted in make many counties and villages becoming the most poverty-hit areas throughout the country. In addition to the geographic and climate stresses, human activity aggravates the situation. Unreasonable water consumption, especially agricultural irrigation, causes extra evaporation and over extraction, and continually disorders the basin's hydrological behaviour.

Overall aim and key points

The overall aim of this project is to enhance the local capacity in water resources utilization and ecological protection in the mainstream are of the Tarim River and then to extend the project approach to other similar arid/semi-arid areas in western China and central Asian countries. This would be achieved through: 1) comprehensive investigation and capacity building at all levels on water rights allocations, ecologically-sustainable water consumption and agricultural practices; 2) establishment of pilot communities or areas in participatory water resources management and water-saving agriculture led by a self-developed farmers' association; and 3) extension of the project to other similar regions within China and abroad, especially in middle Asia. The project would include the following main activities:

- Improve the applicability of water right management and water resources allocation, and establish an annual scheme of water rights allocations based on: an initial allocation scheme; guaranteed water supply; and seasonal stream variation with scientific support.
- Establish a compensation mechanism and charge system for ecological water consumption based on scientific management support; strengthen the law and regulations system; improve the water resources management system based on the principle of "total control, quantified management, and progressive price for excess water" and the triune structure consisting of law, economy and administration.

- Enhance local capacity on the development of ecological agriculture, investigate water-saving technology, and develop scientific tools to help local decision makers direct ecologically-sustainable agricultural development.
- Improve the management capacity of local decision-makers, stake holders and farmer representatives in water resources management and eco-agriculture development through: training by national/international experts based on the cooperation of government, national/international research institutes and farmer associations, including short-term intensive training in two Xinjiang research institutes and annual in-situ training.
- Provide training to support the establishment and operation of farmers' self-developed association of ecologically-sustainable agriculture to organize the local agriculture improvement activities at the three levels (e.g., county, town and village).
- Provide training to support the establishment and operation of farmers' self-developed association of water right allocation to organize the local water resources management activities at the three levels (e.g., county, town and village).
- Establish demonstration areas for water rights allocations and ecologically-sustainable agriculture in project counties based on farmers' self-developed association at the three levels (e.g., county, town and village).
- Extend project best practices and lessons learned to other regions with similar natural condition such as the arid area in western China and central Asia countries and organize national and international workshops of participatory water resources management mechanism and capacity building in arid area.

Component Five – Community engagement and improved access to safe drinking water

Overview

Shenyang (population 7 million) is the capital of Liaoning province in North-East China and has been designated an "Olympic City" for the 2008 Beijing Olympic Games. A combination of unchecked consumption and heavy pollution continue to imperil the quantity and quality of the province's water resource. Compounding the problem is a general lack of public awareness on water-related issues.

The main river of Liaoning province is the Liao River and it is cited as one of the three most polluted rivers in China. 52% of urban water supply is sourced from groundwater and 48% from surface water. In rural areas, over 85% of water comes from groundwater sources. Both surface and groundwater sources are heavily polluted from naturally occurring metal ions, chemicals, organic materials, bacteria, coal dust and other industrial and agricultural wastes. Drinking water standards in the province are outdated (from 1985 national standards) and are not in line with national and international standards. Water tariffs (RMB 2.3 yuan /m3) are low and water from household wells exempted from tariffs, even if they are on Government land. Only 50% of urban sewage is treated.

The Hun River, the main tributary of the heavily polluted Liao River, runs through the city of Shenyang and is the main source of surface water for the city. Forest destruction has resulted in loss of water and soil in the mountainous areas to east of the city. Water pollution occurs from upstream industrial and agricultural activities and inadequate treatment of wastewater. Domestic, industrial and agricultural discharges total an estimated 524,140,000 tons. Low

public awareness and low tariffs mean there are no real incentives to save water, exacerbating the already challenging situation in this city and province.

Overall aim and key points

According to the Ministry of Water Resources, "from the angle of ecology, conflicts of water demand between rural socio-economic development and ecosystem protection will exist for a long period." This project responds to this need by creating a multi-faceted framework for increasing access to safe drinking water that is both environmentally sustainable, ecologically responsible and engages the community in responsible water resources management.

The project includes the following main components:

- Conduct a water source vulnerability assessment (SVA) in the target watershed in Shenyang. The SVA would inform a subsequent technical assessment of technology and support needs and serve to map potential areas where stakeholders could leverage core competencies. This would include helping to identify potential applications of new technology and facilitating their integration. (e.g. water purification; water quality monitoring; water distribution improvements; wastewater treatment) ;
- Engage key stakeholders – including government (national, provincial, local); NGOs; community representatives; and opinion leaders. Broad-based stakeholder engagement will cultivate a sense of ownership among those most able to impact the project and lend credibility to the stated goals and intentions of stakeholders;
- Conduct baseline assessment of social status; institutional capacities and policy mechanisms for water resource management at the local level; and community and local government perceptions of water issues and company environmental impact;
- Develop and activate community awareness raising and education through targeted social mobilization program on water, hygiene, sanitation, health. This would be based on principles of the WHO Participatory Hygiene and Sanitation Transformation program and is designed to reduce diarrhoeal and other water-borne diseases.
- Develop and activate awareness raising campaign on water scarcity and pollution issues and the promotion of water stewardship at the community level. This would draw on the results of the SVA and would form the basis of community dialogue with local and provincial water authorities.
- Promote community-based solutions for water conservation and re-use and related water efficiency/conservation communications campaign;
- Develop and activate communication strategy;
- Conduct training/capacity building on technology maintenance and community water resource management;
- Develop and activate communications strategy to communicate and disseminate project best practices and institutional improvements. Though a communication strategy designed in component five, 4 project sites will be integrated by community level awareness activities.

2.2 General principles

Pilot projects will consider the principles of water resources management and drinking water safety in rural area with the overriding principle to put the needs of farmers first, to encourage participation in decision making and to develop strong and effective partnerships that engage and mobilize the community through education and awareness raising.

Pilot projects will be designed to:

1) Focus on rural area with a comparatively low economical development;
2) Give priority to poor minority rural areas and minority groups but not exclusively;
3) Involve voluntary participation of farmers and local farming communities;
4) Take full cognisance of gender issues and women's development;
5) Include an equal partnership between the farming community and other project stakeholders;
6) Where appropriate, engage municipal authorities responsible for water supply management in peri-urban areas

Project selection criteria include:

Basic human needs. This project strengthens the environmental education and capacity building in China. Ecosystem protection and environmental management can help improve the quality of drinking water which directly affects human health. Most importantly, efficient and effective management of water resources and drinking water safety protection will greatly reduce property and life losses, and minimize the spread of waterborne diseases.

Ethnic minority and gender sensitivity. The project shall focus on rural areas with ethnic minority groups and communities that are ecologically fragile, economically fallen behind, politically sensitive and geographically remote. Reaching out to these communities to alleviate their poverty requires a tailor made approach. Meanwhile, in the dimension of gender, there is a long tradition in particular that women are mostly responsible for household chores and care work, and this gives them inferior status when it comes to access to resources, decision-making in family/community or control over earnings. In the situation of poverty, women need to be engaged in income generating activities that, together with their role as primary care providers, pose double and often even triple burden on them. Therefore, it is imperative to build up understanding that none of the ethnic groups will benefit from the intervention automatically unless there is a specific effort to identify and address the needs of both women and men. It is also important to keep in mind that the project will take into account interests and needs of both women and men, as they differ. Qualitative and quantitative indicators for monitoring should be established.

Infrastructure services. This project focuses on human resource development and institutional strengthening leading to the enhancement of understanding and insights into issues of water resources management and drinking water safety at both community and administration levels. Consequently, institutional and human capacity to design, implement, manage and maintain various soil conservation and water quality monitoring projects will be developed. This developed capacity can be extremely helpful for protecting human health and life by avoiding serious socio-economic impacts caused by water-borne epidemics.

Human rights, democracy and good governance. Ecosystem protection is a major component of sustainability for rural areas. Concerns of water resources management and drinking water safety provide a venue for communities to participate in charting a sustainable future. This participation is both a basic right and a responsibility for any individual. This project also strengthens the democratic process by enhancing ability of the public to participate in the decision-making process at the community level and to understand and influence regional and national decision-making. With the provision of training for effective water resources management, the communities can better understand their environment and how to best protect their rights for safe and healthy living conditions. Community participation will be further enhanced by education and awareness raising around the relationship between water, hygiene, sanitation and health. The project can thus promote good governance for communities in playing their roles in ecosystem protection and in the related policies and community development plans.

Poverty reduction. Poverty is not only a matter of income, but also, more fundamentally, a matter of being able to live a life in dignity and enjoy basic human rights and freedoms. It describes a complex of interrelated and mutually reinforcing deprivations, which impact on people's ability to claim and access their civil, cultural, economic, political and social rights. Economical development of rural regions of China is delayed by worsen drinking water quality and limited water resources. One of the objectives of this project is to reduce poverty of rural regions by directed to achieving sustainable use of water resources for ecological and economic systems.

Environment. This project addresses a number of environmental problems through capacity building for academic institutions, communities, non-governmental organizations, policy makers, industries, and professional practitioners. Interrelationships among human activities and their impacts on ecosystem sustainability will be better understood. Principal impact factors are identified by analyzing historical data and examining how human activities and natural processes are related to water resources scarcity, pollutant transport, and soil erosion. The findings and knowledge gained through this project are to be disseminated and made available for potential application to other regions or for further investigations.

Climate Change. Climate has a significant impact on water supply. Variability in climate can result in recurrent rainfall deficits and droughts which are likely to become more extreme due to climate change. The economic impact of these climatic conditions is significant. Reduced rainfall, higher temperatures and increased evaporation means less water is available for environmental flows and uses such as human consumption. Thus, the techniques developed in this project considered the impacts of climate change to rural water resources management and drinking water safety.

Replicability/Scalability. This project is both replicable and scalable. Replicability refers to the ability of the project to be replicated within the same region and/or in other regions or countries. Scalability concerns the magnitude of the project – that is, each of the pilot projects can be "scaled up" from one community to ten communities, to city-wide, to province, to nation-wide.

General. Each pilot project, though independent in implementation, will be linked to the common goals of the overall project by the aim of improving water resources management and

drinking water safety in rural areas. Some activities will be specific to each, others, such as capacity building, institutional strengthening, basic education, community engagement and project dissemination will be common to all.

2.3 Project outcomes, outputs and key activities

The project aims to achieve the following specific project outcomes with a number of expected project outputs through the implementation of key project activities.

Outcome One: Improved capacity at institutional/community level to understand and utilise science and technology inputs for local water resources management and drinking water safety protection needs.

Output 1: Baseline Studies and Research: to evaluate the existing national/local policies and regulations; to provide information and data for assessing specific project needs; to develop an improved support structure in each project area. **Key activities**: to undertake evaluations, reviews and surveys on current national/local laws, regulations, guidelines, and specifications of rural drinking water safety and water resources management; to conduct survey on current status of management mechanisms of drinking water supply and security in typical rural areas; to identify priority areas and assess institutional strengths and weaknesses; to carry out detailed risk/benefit analysis; to identify training needs; to design and organize study tours; to prepare baseline study report.

Output 2: Capacity Building/Training: to improve active participation, self-determination and self-development of farmers in local decision making, commercial and negotiation skills of farming communities in each demonstration area. **Key activities**: to set up farmers' association of water affaires in each selected demonstration area to represent local farmers and to act as a focal point for technical, commercial and policy-support activities, as well as training programs; to provide social education training courses and easy to access information regarding entrepreneurship development, business-skill coaching, and market accessibility; to provide technical training courses on drinking water protection, sustainable water resources management, and eco-environmental protection; to prepare and initiate website; to undertake national and international study tours relevant to each demonstration project; to provide training to trainers and key decision makers in farmers' associations by national or international experts.

Output 3: Community education and awareness raising: to activate awareness raising and education through a targeted social mobilization program so that communities better understand community water stewardship opportunities and the relationship between water, hygiene, sanitation and health. **Key activities:** engage national/international experts to conduct a technical baseline assessment of the water source to provide an informed, scientific basis for dialogue between community and local and provincial government authorities; engage national/international NGO experts to conduct a baseline

assessment of the social status, institutional capacities and policy mechanisms for water resource management at the local level, community and local government perceptions of water issues and industry environmental impact; identify and engage local schools and community leaders (possibly also water association members) to help collaboratively develop and implement a community education and awareness program that is sensitive to local culture and conditions; develop community-based program that reflects the principles of the WHO Participatory Hygiene and Sanitation Transformation program for application in target project sites; develop local communications campaign focused on community water stewardship and environmental protection opportunities; engage local and national NGO experts to activate the community social mobilization and communications program in target project sites; monitor, assess and record the effectiveness of the program through the third party independent advisory team and communicate results and lessons learned for possible replication in other communities.

Outcome Two: Innovative and practical science technologies of drinking water safety and related project constructions.

Output 1: Capacity Building for Providing Scientific Supports: to enhance management capacity of local stakeholders, farmers' association, and governmental agencies on drinking water safety through advancement of related policies, regulations and guidelines, improvement of communication and coordination among various drinking-water-safety related authorities, and provision of practical scientific decision supports. **Key activities**: to investigate the basic national framework for securing rural drinking water safety; to carry out national (or international) visits to gain experience and guidance on policy mechanisms of drinking water safety with supports from governmental departments and the private sectors (e.g. Coca-cola China Beverages Limited); to provide suggestions on establishment of laws, regulations, and environmental guidelines related to management of drinking water safety, protection of water sources and quality, and organization of farmers' associations in rural areas at both national and regional scales; to organize workshops to discuss responsibilities of, and coordination methods among different authorities in managing drinking water safety issues and controlling waterborne diseases; to seek efficient monitoring and evaluation mechanisms on functions and roles of drinking-water regulatory agencies; to invite renowned international experts from developed countries to delivery training courses for local decision makers, with topics on advanced water-treatment technologies, drinking water management experiences, and integrated environmental risk-assessment and decision-analysis techniques etc; to increase management efficiencies of local authorities through development of advanced information and communication technologies (ICT) (e.g. internet website and GIS-aided database); to improve management effectiveness and scientificalness of safe drinking-water regulatory authorities through advancement of effective

decision-support tools (e.g. risk-assessment methods, early-warning systems, and emergency-management tools).

Output 2: Demonstration Pilot Projects: to improve and demonstrate farmer's capability in achieving drinking water safety and controlling waterborne diseases by means of relying on practical science technologies. **Key activities**: to identify potential demonstration projects for improving drinking water safety in rural areas; to assess technical development, environmental and social needs for each demonstration project; carry out national (or international) field visits to gain experience and guidance from similar applications in China and overseas as required; to establish appropriate scientific and technical support platforms, and design implementation plan for each demonstration project; to establish demonstration projects and commence project activities; initiate monitoring and evaluation activities of demonstration projects.

Output 3: Project Dissemination: to promote successful experience of the innovative and practical science technologies of drinking water safety to a wider audience in China and other developing countries. **Key activities**: to prepare training manuals and materials; to organize workshops and training courses for local farming communities to disseminate; to organize or participate in symposia in China and abroad for propagandizing project achievements and experiences of improving rural drinking water safety; to make provision for continuing maintenance of website after project completion.

Outcome Three: Innovative and practical science technologies of sustainable water resources management and related project constructions.

Output 1: Capacity Building for Providing Scientific Supports: to enhance management capacity of local stakeholders, farmers' association, and governmental agencies on sustainable water resources management through advancement of related policies, regulations and specifications, improvement of communication and coordination among different authorities of water resources management, and provision of practical scientific decision supports. **Key activities**: to carry out national (or international) visits to gain experience and guidance on policy mechanisms of water resources management with supports from governmental departments and non-governmental organizations; to provide suggestions on development of laws and regulations related to rural water resources management at national and local levels; to recommend efficient methods and strategies for management of emergency water supplies; to suggest design and operational specifications for water-supply facilities or plants in rural areas; to recommend long-term effective water-supply mechanisms and sound pricing policies; to investigate farmers' participatory process in water resources management and allocation mechanisms; to organize workshops for seeking efficient monitoring and evaluation mechanisms on responsibilities and rights of different authorities in managing water resources; to invite international (or national) experts to conduct technical training for local stakeholders on topics of sustainable water resources management, water-saving irrigation techniques, ecological agriculture, and

water supply-demand analysis in rural areas; to enhance management capabilities of local authorities in identifying optimal water allocation schemes, handling water supply-demand conflicts, reducing soil erosions, and harmonizing socio-economic development and eco-environmental protections through designs of decision-support tools.

Output 2: Demonstration Pilot Projects: to improve and demonstrate sustainable water resources management in rural areas by: relying on practical science to determine the status of target watershed(s); determining and applying appropriate technologies to improve access to safe drinking water; improving the institutional capacities of local and provincial governments to better manage water resources; informing and engaging local communities in improved water resource management. **Key activities**: identify potential demonstration projects for seeking sustainable water resources management in rural areas; conduct baseline assessment of target watershed(s) -- source vulnerability assessment; to assess technical development and technology needs, environmental and social needs for each demonstration projects; demonstrate appropriate technology solutions to improve access to safe drinking water; conduct social mobilization around water, hygiene, sanitation, health; carry out national (or international) study tours to gain experience and guidance from similar applications in China and overseas as required; establish appropriate scientific and technical support platforms, and design implementation plan for each demonstration project; engage local community stakeholders in project design and development; establish demonstration projects and commence project activities; initiate third party independent monitoring and evaluation activities of demonstration projects.

Output 3: Project Dissemination: promote successful experience of the innovative and practical science technologies of rural water resources management to a wider audience in China and abroad. **Key activities**: prepare training manuals and materials; to organize workshops and training courses for local farming communities to disseminate; extend project experience to other regions with similar natural conditions.

Outcome Four: Project model for replication in other parts of China and other countries

Output 1: Project Chronicle/Case Study: project review and evaluation by a third party to generate best practices and lessons learned in the form of a project chronicle/case study that can be readily communicated and disseminated to a wide audience. **Key activities**: engage a highly credible third party technical advisory team to review, improve and chronicle the project over time; conduct quarterly meetings with project team members and other stakeholders to review effectiveness of demonstration project technology and capacity building as well as project challenges and progress, and community and institutional impacts; chronicle project impacts and lessons learned to support the development of a community-based partnership model for replication in other parts of China and potentially in other countries.

2.4 Implementation strategy

Provided the committed funding from both UNDP, the governments and third party/private sector cost sharing, the project will be initiated and implemented immediately after signing the project document. The duration of the Project is four years (2007-2010). The project will cover Xinjiang, Heilongjiang, Sichuan, Liaoning and ethnic minorities in selected provinces. Other demonstration sites with similar national and international programs may also be selected for exchanging knowledge, experiences, and achievements. The detailed implementation strategies are described as follows.

1) Implementation Activities

Common activities will be explored to maximize effective use of resources including: training activities for local government and community associations; technical assistance; annual review workshops; project dissemination, e.g. website, training manuals, guidelines; final project workshop. The objective of these activities is to foster the skills of all project participants for undertaking the core activities over the life of the project, and for continuing related activities beyond the program. Where possible, these activities will be participated in by other organizations outside of China. Particular themes will be identified based upon perceived community needs, requirements, expertise, and experience of participants.

Training is one of the most important activities among the various implementation strategies. Totally three major programs will be initiated by the implementation strategy. The first is "Training for Trainers" Program, which will prepare members of the Chinese participants as trainers in several areas related to water resources and safety water resources management and drinking water safety. These trainers will then, in collaboration with the other international partners, assume a leadership role in delivering the second program, "Comprehensive Training" Program, which aims at training personnel from the governments, NGO's, communities, and student bodies. The last is "Field-Training" Program, which will focus on instruction in the monitoring and assessment of the implementation of the pilot sites.

2) Dissemination of project achievements

Knowledge and experiences obtained through undertaking the project shall be transferred by bringing together the participants interested in water resources management and drinking water safety security. Collaboration and communication with these participants will enhance creative thinking and new approaches development. Regular meetings and annual workshops will be organized to solicit inputs from project members and user sectors. The project achievements will be communicated to governmental, academic and industrial circles through knowledge products such as publication of articles, reports, brochures and newsletters, provision of seminars and workshops, and transfer of technologies, as well as other appropriate communication channels. Media involvement will be very important component in project activities. A dedicated web site for this research will also be created and maintained to broadcast the updated information of the research progress. The website will play the role of communication tool to link up 4 project sites.

3) Project Assessment

Project assessment will be implemented to monitor on a permanent basis the contribution of the participants. This will involve a highly credible third party independent technical advisory team to conduct quarterly assessments to review, improve and chronicle project progress and to provide a forum for project partners to provide inputs and to exchange feedback. This

project will constitute four pilot sites in which different organizational procedures will be designed, implemented, and evaluated in order to develop the final assessment system. A training program will be implemented for establishing performance indicators, information-gathering techniques, information classification/analysis, and report preparation. A short-study will be carried out in each participated units to clearly define the communities of interest in each region. The assessment system will be used to monitor activities of this project. A regional advisory committee consisting of community representatives will provide advice on the organization of this system. This will ensure that the perspective of the regional communities will be taken into consideration.

4) Community Involvement

Involvement of communities and stakeholders will be critical for ensuring systematic participation of the communities in the project. Thus a regional advisory committee will be created in China. It will consist of representatives from local governments, NGOs, and community organizations. The main task of these committees will be to provide advice and feedback on the activities of the project, such as organization and implementation of training programs, and selection of specific strategies and policies to be assessed as part of the field-training program.

Education and investigation programs will be initiated for facilitating this involvement at the beginning of this project. Seminar series and education materials related to the themes of the project will be delivered to create an awareness of the concerns. The related information will be made geographically specific and understandable by local participants. Teachers at secondary level will be encouraged to integrate the materials into their classroom activities and project assignments. Information from different community/stakeholder groups with varied age, sex, education, job, and ethnicity will be collected, through methods of questionnaire survey, roundtable meetings, and consultation workshops.

2.5 Beneficiaries

Direct beneficiaries: Government organisations, institutions and related agencies at national, provincial, municipal, county and community level by strengthening capacities in sustainable economic development, sustainable water resources development, water resources protection, as well as poverty alleviation and job creation. Local implementation agencies and farming communities through capacity development and infrastructures will also benefit from the project. Poor farmers and minorities will benefit thru capacities building, living condition improvement and income generation. Demands for application of advanced water resources development and water pollution control technologies will also stimulate the associated plants and enterprises to introduce, develop, and advance more sophisticated technologies. A good run of the plants and enterprises will not only stimulate local economic development but also will create many new employment positions.

Indirect beneficiaries: Women will benefit from this project. A significant proportion of women participants will assume active and ongoing roles in the implementation and management of the project. This project also emphasizes the involvement of women as instructors, trainees, and managers.

2.6 Partnership Strategy

The successful implementation of the project will depend on the development of effective partnerships between numerous different agencies at multiple levels. The partnerships involved in this project will help to promote possible technology transfer and formation of appropriate alliances. They will be pursued with international, national and local agencies to achieve more outcomes. The partnership strategy in the project is proposed at international, national, local, institutional, and technical/commercial levels.

1) International level

Presently, some international organizations and bilateral donors have shown their interests in the project, including United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Educational, Scientific and Cultural Organization (UNESCO), World Health Organisation (WHO), European Union (EU), UNDP Water Governance Facility, DFID of British Government and Canadian International Development Agency (CIDA) and other agencies and bilateral parties. Their project interests were mainly related to water resources development, water resources protection, flooding control, and sustainable economic development in rural regions of China. They will provide assistance in information exchange, technical transfer, professional training, and project management.

2) National level

The cooperation with national-level partners will strengthen partnerships and synergies for the project. Key partners will be: 1) Ministry of Water Resources (MWR): MWR is responsible for formulating and organising implementation of national plans of fundamental study and development and dissemination of key technologies on water issues. This includes incorporation and development sustainable water resources systems for rural regions in China; 2) China International Centre for Economic and Technical Exchange (CICETE), the largest multilateral development assistance institution in the United Nations operational system for development, for helping promote human sustainable development through technical assistance; to date, it undertakes development activities in over 100 recipient countries with a worldwide network of field offices

3) Institutional level

Some international non-profit organizations and societies may provide a platform to address issues relevant to foundations, techniques and tools of water resources development and environmental protection sciences. Other NGO partners, such as LEAD/Fuping Development Institute, will support implementation activities.

4) Technical/Commercial level

The support and assistance of the technical and commercial sectors, as suppliers of expertise and invested capitals will be essential to undertake the project. Therefore the project will also seek to form collaborative relationships with technical and commercial partners to make the project a success. The Coca-Cola Company, through Coca-Cola China Beverages Limited (CCCBL), is the key private sector partner on this project, providing funding and in-kind resource support. Other technical and commercial partners will be pro-actively drawn into activities wherever relevant and possible in supporting the water resources development and drinking water treatment.

Part 3. Management Arrangements

The programme will be executed on behalf of the government by China International Centre for Economic and Technical Exchanges (CICETE) of the Ministry of Commerce of China (MOFCOM) according to NEX The project will be jointly implemented by Ministry of Water Resources, Sichuan, Heilongjiang and Xinjiang governments. CICETE, as government implementing partner, will be directly responsible for the Government's implementation of annual work plan (AWP) for this project. The AWPs describe the specific results to be achieved and will form the basic agreement between UNDP and the Implementing Partner on the use of resources. CICETE is responsible and accountable for managing the project, achieving the project outputs, and for the effective use of UNDP resources. The reference to "Implementing Partner(s)" shall mean "Executing Agency (ies)" as used in the SBAA.

In close collaboration with the MWR and CICETE, UNDP will play project assurance role through its oversight and monitoring functions of projects.

In line with overall project objectives, a Programme Steering Committee (SPC) will be established. It will be, co-chaired by the Chief Engineer of MWR, Director General of CICETE and UNDP Country Director, including pilot provincial governments as the committee members. Relevant governmental departments will be invited to the committee. UNESCO, UNICEF and WHO representatives will be members of PSC. Private partnership representative, Coca-Cola China Beverages Limited, also will be invited to participate on the PSC. The Committee will convene annually to supervise the implementation of the overall programme, review, evaluate and approve outputs, coordinate inputs of related agencies, and communicate outputs to appropriate agencies.

MWR is the designated Government Co-operating Agency. MWR will also provide the National Project Director (NPD). The NPD will submit to CICETE and UNDP Quarterly Reports explaining progress in achieving results. The NPD will be supported by a National Project Management Office (NPMO) to be hosted by the Ministry of Water Resources/CICETE and its sub-PMOs will be established respectively within MWR and CICETE respectively in compliance with NEX recruitment and procurement rules The NPD will be responsible for endorsing and overseeing all capacity building activities, implementation of demonstration sub-projects and dissemination activities. A particularly important role will be in co-ordinating project activities to ensure efficient and effective use of project resources. The NPD will be supported by the appointed two MWR/CICETE national programme managers (NPMs) from the two sub-NPMOs in MWR and CICETE respectively and three provincial managers (from Xinjiang, Sichuan, and Heilongjiang) for day to day management.

Four project management offices (PMOs) at local level will be established in the four pilot sites, responsible for formulating and organizing implementation of national plans of fundamental study and development and dissemination of key technologies on water issues. This includes development and promotion of the use of water technologies in demonstration pilots. The National Project Managers (NPMs) will be responsible for the NPD and CICETE.

An Expert Group, one national and one international (with the international playing a role of Chief Technical Advisor), will be established to provide technical support. The advisors will provide technical support and back-up and will ensure that technical aspects of the project are undertaken at the required standard within time and budget. More specifically, for the three demonstration projects, the NPMO will be established for day to day management of pilot sites depending upon needs at provincial, municipal, and county level. They will support and be supervised by the NPMO.

Part 4. Monitoring and Evaluation

The Monitoring and evaluation (M&E) of the project will be undertaken in line with the UNDAF results matrix and monitoring and evaluation plan. The M&E will focus on outcomes and outputs of interventions, institutional results and partnerships, policy advice and dialogue, advocacy and coordination for improvement of water resources management and drinking water safety in rural region of China.

In detail, the M&E aims at the following key objectives:

- focus on the specific products and services from the project;
- focus on significant contributions to overall institutional setting and policy formation;
- focus on enhancement of the management efficiency of the project;
- focus on assurance of consultation/participation from all stakeholders;
- focus on dynamic assessment and timely supervision of the project progress;
- focus on experiences and lessons leant from the project and dissemination of the project results.

The achievement level of the desired project outcomes and outputs will be monitored by an integrated system. The system consists of M&E project activities, annual work plans and budgets, and peer group review and evaluation. Necessary M&E mechanisms, tools and conducting reviews, will be set up in order to ensure continuous monitoring and evaluation of the project with a view to ensure efficient utilization of programme resources as well as accountability, transparency and integrity.

The NPMOs will provide, through CICETE to UNDP, periodic reports on the progress, achievements and results of their projects, outlining the challenges faced as well as resource utilization as articulated in the annual work plan. The reporting will be on quarterly basis in accordance with the procedures and harmonized with the UN Agencies to the extent possible. The direct involvement and necessary support from provincial and regional government will be combined with the project management from PMOs to enhance monitoring and evaluation activities.

Monitoring visits will be conducted by UNDP and CICETE to assess program progress and results through consultations with relevant stakeholders and beneficiaries. The Program Managers will prepare annual project updates with assistance of project technical advisors to support day to day monitoring and implementation, as well as information sharing among concerned parties. CICETE will provide annual reports on the progress, achievements and results of the whole program, outlining the challenges faced in program implementation as well as resource utilization as articulated in the annual work plan.

The independent third party technical advisory team will coordinate its efforts with the NPMOs to avoid duplication of effort and to ensure integration of NPMO findings into the technical advisory team's process of review, improve and chronicling of the project.

Annual National Project Steering Committee meetings will be held to evaluate progress, results, experiences and lessons during project implementation in the following years. The national project management office (NPMO) will support convening of the review meetings and will assist MWR, regional governments of Sichuan, Heilongjiang, Xinjiang and Liaoning to prepare annual program reports. This annual review will ensure periodic evaluation and dynamic assessment on whether the approach and interventions produce the expected outcomes.

Part 5. Legal Context

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Agreement between the Government of the People's Republic of China and the United Nations Development Program, signed by the parties on June 29, 1979. The reference to "Implementing Partner(s)" shall mean "Executing Agency (ies)" as used in the SBAA and may include a third party private sector partner, Coca-Cola China Beverages Limited.

Part 6. Funding

The total budget for the project is US$ 5.892 million. Among them, US$ 1,542,000 is from UNDP TRAC fund, and US$ 4,200,000 is committed from the Chinese Government cost/sharing contribution and third party cost sharing US$ 150,000 from Coca-Cola China Beverages Limited (CCCBL).

1. Government cost sharing:

- Identification and preparatory work of the project, including workshops and trainings;
- Costs of short-term domestic experts;
- Workshops: travel costs, accommodation, allowance, venue costs;
- Domestic study tours and trainings: covering participants' accommodation, allowance and travel costs in China;
- Overseas trainings: travel costs of some trainees, domestic costs related to application and preparation;
- Costs of demonstration or piloting activities;
- Follow up of actions recommended by the program, including dissemination workshops and related materials printing;
- Partial costs of PMOs' operation, including communication, transportation as necessary plus procurement of project-used facilities and vehicles (Chongzhou Municipal Government: Toyota Land Crusier V8; Heilongjiang Department of Science and Technology - Toyota Land Cruiser V6; Xinjiang Institute of Ecology and Geography, CAS – Toyota Land Cruiser V8; Each is estimated USD 60,000) for PMOs at national and local levels;
- All necessary resources to facilitate program management and sub-program implementation.

Sichuan	US$ 1,800,000
Heilongjiang	US$ 1,500,000
Xinjiang	US$ 900,000
Sub total	**US$ 4, 200,000**

2. UNDP Inputs:

- International and national consultants and resource persons;
- Supporting technical services, training activities, study tours, symposiums and workshops, partial operation costs of national PMO including recruitment of project staff, communication, in-city travel and office facilities as necessary;
- Monitoring and evaluation;
- Material and equipment to a limited degree;
- Partial demonstration project costs;
- Project support and administration costs.

Sub total: US$ 1,542,000

3. Third party cost sharing (CCCBL inputs):

- Technical and social base line assessments (Liaoning);
- Technology pilot;
- Community engagement and mobilization;
- Third party independent monitoring;
- Communications strategy;
- Project management support.

Sub total: US$ 150,000

5. Project Funding Total: US$ 5,892,000

Table: Statement of Payment Schedule of Cost Sharing

1. Government cost sharing			
	Time	Amount (US$)	Percentage of Total (%)
First payment	October 2007	997,000	23.7
Second payment	July 2008	2,399,500	57.1
Third payment	July 2009	736,500	17.6
Last payment	April 2010	67,000	1.6
2. Third Party C/S	September 2007	150,000	100
TOTAL		**4,350,000**	

Detailed budgeting for these programme activities is in Section II - Programme Results and Resources Framework.

SECTION II –PROJECT RESULTS AND RESOURCES FRAMEWORK

(Year 2007-2011)

EXPECTED CP OUTPUTS and indicators including annual targets	PLANNED ACTIVITIES *List all activities including M&E to be undertaken during the year towards stated CP outputs*	TIMEFRAME				RESPON-SIBLE PARTY	PLANNED BUDGET		
		Y1	Y2	Y3	Y4		Source of Funds	Budget Description	Amount (US$)
Output 1 : Project Management **Target 1** : To establish efficient and effective management and implementation structure for the project. **Indicator 1** : One National Steering Committee; One national programme management offices;	**1.1. Improved laws, policies, regulations and standards**								
	1.1.1 Establish Project Steering Committee	X				MWR, CICETE, UNDP, provinces representatives, CCCBL	UNDP		
	1.1.2 Establish National Programme Management Offices.	X				MWR, CICETE	UNDP	71200 International Consultants 71300 National Consultants	5,000 8,000
	1.1.3 Establish Project Management Offices for each project component.	X	X			Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	72210 Rental & Maintenance	28000

Four project management offices; List of national and international expert consultants; Four project executive agencies; Four project inception meetings; First annual review meeting; Four Mid-term project review meetings; Four Final project workshops.							Cost Sharing: Sichuan, HLJ, XJ	72210	175,000
	1.1.4 Establish project executive agencies at local levels, including governmental organizations and NGOs (e.g. drinking water associations).	X				Sichuan, Heilongjiang, Liaoning and Xinjiang	Cost Sharing: Sichuan	74500 Rental & Maintenance	2,000
							Cost Sharing: Liaoning (CCCBL)	74500 Rental & Maintenance	1,000
	1.1.5 Appoint national and international expert consultants for each project component.	X				Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	72100 Service Contract	4,000
	1.1.6 Hold project inception meeting for each project component.	X				Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	74500 Inception Workshop	4,000
							Cost sharing Liaoning (CCCBL)	74500 Inception Workshop	1,000
	1.1.7 Finalise management arrangements for each project component.	X				Sichuan, Heilongjiang, Liaoning and Xinjiang			
							Cost Sharing: Liaoning (CCCBL)	71300 National Consultants	1,000

	Sub-Total (1.1)						UNDP Cost Sharing: Sichuan Liaoning (CCBL)		$16,000 $5,000 $5,000
	1.2. Monitor and review project								
	1.2.1 Ongoing monitoring, evaluation and management of each project component.	X	X	X	X	MWR, CICETE	UNDP	71200 International Consultants 71300 National Consultants 72100 Training Materials 72200 Training Facilities 72200Equipment purchase 74500 Rental & Maintenance	6,000 3,000 10,000 10,000 10,000 4,000
	1.2.2 First annual review meeting. (To review progress, discuss baseline studies, confirm selection of demonstration projects, endorse implementation plans and resolve any financial issues.)	X				MWR, CICETE	UNDP	71200 International Consultants 71300 National Consultants 74500 Other Training	2,000 1,000 2,000
							Cost Sharing: Sichuan	74500 Annual review meeting	5,000

	1.2.3 Mid-term project review meeting for each project component.		X			MWR, CICETE , Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Other Training	2,000 1,000 2,000
							Cost Sharing: Sichuan	74500 review meeting	5,000
	1.2.4 Final project review and workshop for project component.				X	MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants	5,000 4,000
							Cost Sharing: Xinjiang	74500 Other Training	4,000
	Sub-Total (1.2)						UNDP Cost Sharing: Sichuan Xinjiang		$62,000 $10,000 $4,000
Output 2 : Baseline Studies and Research **Target 2** : To evaluate the existing national/local policies and regulations; To provide information and data for: assessment of specific project needs; to	**2.1. Undertake evaluations, reviews and surveys on current policies and regulations**								
	2.1.1 Review and evaluate current national laws, regulations and environmental guidelines related to rural drinking water safety and water resources management.	X				MWR, CICETE,	UNDP	71200 International Consultants 71300 National Consultants 74500 Other Training	2,000 1,000 2,000

develop an improved support structure in each project area. **Indicator 2 :** Several study tours; Several local stakeholder consultations; Several public survey; Several workshops; Several training; Socio-economic and eco-environmental database; Decision-support tools; Four national study tours ; Four international study tours; Eight report of study tours.	2.1.2 Undertake study tours in a number of typical rural areas (i.e. case-study communities) to assess local drinking water policies, water-quality standards and water supply specifications.	X				MWR, CICETE	UNDP	74500 Inception Study tour	10,000
	Sub-Total (2.1)						UNDP		$15,000
	2.2. Conduct extensive surveys on current situations of rural water governance, waterborne disease control, and water resources management in case-study communities and pilot project areas								
	2.2.1 Undertake local stakeholder consultations and public survey to assess the current situations regarding rural water governance, waterborne disease control, water-supply management, farmers' sanitation and healthcare, and eco-environmental protection etc. in the case-study communities and pilot project areas.	X				MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 71600 Travel 74500 Miscellaneous	6,000 3,000 6,000 1,000
							Cost Sharing: Xinjiang	74500 Public survey 74500 Rental & Maintenance	30,000 10,000

	2.2.2 Conduct pubic survey to examine farmers' understanding on rural drinking water safety and water resources management in case-study communities.	X				MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 71600 Travel 74500 Public survey	6,000 3,000 6,000 20,000
	2.2.3 Organize workshops (inviting national or international experts) to investigate local management mechanisms and review current governmental plans on rural drinking water safety and water resources management in each pilot project area.	X				MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants	6,000
							Cost Sharing: Liaoning (CCCBL)	71300 National Consultants	3,000
							Cost Sharing: Xinjiang	74500 workshops 74500 Other Training 71600 Travel	20,000 6,000 6,000
	2.2.4 Assess strengths and weaknesses of institutional policy, management and technical support systems for each pilot project. (C2, C3, C4)	X				MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71300 National Consultants 71200	3,000
							Cost Sharing: Xinjiang	International Consultants 74500 Other Training 71600 Travel	6,000 6,000 6,000

	Sub-Total (2.2)						UNDP Cost Sharing: Xinjiang Liaoning (CCBL)		$60,000 $90,000 $3,000
	2.3. Complete baseline studies for each component of the project								
	2.3.1 Quantitatively investigate and collect basic socio-economic and eco-environmental data (e.g. point/NPS pollutions) for facilitating investigation of policy mechanisms of drinking water safety and water resources management, and supporting establishment of scientific decision-support tools for building management capacity in each project component.	X				MWR, CICETE, Sichuan, Heilongjiang, and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 72100 Training Materials 71600 Travel 74500 Develop decision support tools	6,000 3,000 10,000 6,000 25,000
							Cost Sharing: Xinjiang	72200 Training Facilities 72200 Equipment purchase 74500 Rental & Maintenance	10,000 10,000 20,000

	2.3.2 Conduct risk/benefit analysis for each project component.	X				Sichuan, Heilongjiang, and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Other Training	6,000 3,000 6,000
	2.3.3 Identify training and resource needs.	X				Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Other Training	6,000 3,000 6,000
	Sub-Total (2.3)						UNDP Cost Sharing: Xinjiang		$80,000 $40,000
	2.4. Review relevant experiences and lessons from China and abroad								
	2.4.1 Consider any relevant capacity-building initiatives in the case studies, demonstration project areas and elsewhere in China.	X				MWR, CICETE	UNDP	71300 National Consultants	3,000
							Cost Sharing: Sichuan	71200 International Consultants	6,000
	2.4.2 Investigate potential synergy with other UNDP projects and aid initiatives in China and overseas.	X				MWR, CICETE	UNDP	74500 Investigation	7,000
	2.4.3 Design, organise and undertake national study tours relevant to each project component.	X				MWR, CICETE	Cost Sharing: Sichuan	74500 National Study tour	11,000

	2.4.4 Design, organise and undertake international study tours (four study tours envisaged; one for each project component).	X				Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	74500 International Study tour	40,000
	2.4.5 Produce report of study tours.	X				Sichuan, Heilongjiang, Liaoning and Xinjiang	Cost Sharing: Xinjiang	74500 Reporting	5,000
	Sub-Total (2.4)						UNDP Cost Sharing: Sichuan Xinjiang		$50,000 $17,000 $5,000
	2.5. Produce baseline study report								
	2.5.1 Produce report on baseline study including assessment of current situation, findings of study tours, risk/benefit analysis result, training needs, recommendations for various components of projects, and technical, policy and institutional decision-support requirement.	X				MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	74500 Reporting	25,000
	2.5.2 Present baseline study report at first annual review meeting.	X				MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	Cost Sharing: Xinjiang	74500 Reporting	10,000
	Sub-Total (2.5)						UNDP Cost Sharing: Xinjiang		$25,000 $10,000
Output 3 : Capacity Building/ Training	**3.1. Work towards the establishment of farmers' self development associations or enhance existing farmers' associations in each project area**								

Target 3 : To improve active participation, self determination and self development of farmers in local decision making in the demonstration areas. **Indicator 3 :** Four associations of water affaires; Several training courses; Several workshops; National and international study tours Handouts; Media promotion; Share of knowledge and information.	3.1.1 Farmers elect members of farmers' development association of water affaires (e.g. drinking water safety association; water-supply association) in each pilot project area.		X			Sichuan, Heilongjiang, and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 71600 Travel	6,000 3,000 12,000
							Cost Sharing: Xinjiang	72200 Equipment purchase 74500 Rental & Maintenance 75100 Facilities and Administration	20,000 10,000 10,000
	3.1.2 Where appropriate, provide training courses delivered by invited national (or international) experts.		X			MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 72100 Training Materials 72200 Training Facilities	6,000 3,000 10,000 10,000
							Cost Sharing: Xinjiang	74500 Rental & Maintenance 71600 Travel	10,000 10,000

	3.1.3 Develop agreements of reference and regulations for the association.		X			Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants	6,000 3,000
							Cost Sharing: Sichuan	72100 Service Contract	2,000
	3.1.4 Establish the function of associations to represent local farmers.		X			Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 75100 Facilities and Administration 71600 Travel	6,000 3,000 12,000 10,000
	Sub-Total (3.1)						UNDP Cost Sharing: Sichuan Xinjiang		$90,000 $2,000 $60,000
	3.2. Encourage local farmers (especially women and ethnic minorities) to actively take part in associations of water affaires and community activities in each project area. (mid 2008)								

	3.2.1 Provide fundamental social education through easy-to-learn training courses to local people (especially women and ethnic minorities).		X			MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants 71600 Travel	6,000 3,000 3,000
							Cost Sharing: Xinjiang	72100 Training Materials 72200 Training Facilities 74500 Rental & Maintenance	10,000 10,000 10,000
	3.2.2 Provide easy access to information sources and support services in each project area.		X			Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	74500 Materials publication 71600 Travel	10,000 3,000
	3.2.3 Cultivate knowledge sharing through modern ICT means such as rural village telecentres tested by UNDP in other provinces)		X			MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	Cost Sharing: Xinjiang	75100 Facilities and Administration	10,000
	3.2.4 Make handouts and use media promotion (e.g., TV, radio, newspapers and advocatory activities in public schools) to local		X			Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	74500 Materials publication 74500 Media promotion	10,000 10,000

	farmers for publicizing roles and benefits of associations.						Cost Sharing: Sichuan	71600 Travel	3,000
	Sub-Total (3.2)						UNDP Cost Sharing: Sichuan Xinjiang		$45,000 $3,000 $40,000
	3.3. Improve capacity of farmers' associations to represent interests of farmers in achieving drinking water safety and sustainable water resources management								
	3.3.1 Develop a training plan based on training needs identified in baseline studies.	X	X	X	X	MWR, CICETE	UNDP	71200 International Consultants 71300 National Consultants 72100 Training Materials 72200 Training Facilities 74500 Rental & Maintenance	12,000 12,000 10,000 10,000 10,000
	3.3.2 Undertake national and international study tours relevant to each demonstration project	X	X	X	X	MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	74500 International Study tour	80,000

	(drinking water supply system, waterborne disease control system, early-warning system, emergency management system, and water collection and purification technologies).						Cost Sharing: Xinjiang	74500 National Study tour	30,000
	3.3.3 Provide training to trainers and key decision makers in farmers' associations.	X	X	X	X	MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants 71300 National Consultants	12,000 12,000
							Cost Sharing: Xinjiang	72100 Training Materials 72200 Training Facilities 74500 Rental & Maintenance	12,500 12,500 5,000
	3.3.4 Provide farmers technical training courses on drinking water safety, participatory eco-environmental protection, waterborne disease control, and agricultural	X	X	X	X	MWR, CICETE, Sichuan, Heilongjiang, Liaoning and Xinjiang	UNDP	71200 International Consultants	12,000
							Cost Sharing: Liaoning (CCCBL)	71300 National Consultants	12,000

	production skills.						Cost Sharing: Xinjiang	72100 Training Materials 72200 Training Facilities	12,500 12,500
							Cost Sharing: Sichuan	74500 Rental & Maintenance	5,000
	Sub-Total (3.3)						UNDP Cost Sharing: Sichuan Xinjiang Liaoning (CCCBL)		$170,000 $5,000 $85,000 $12,000

Output 4: Capacity Building for Providing Scientific Supports **Target 4:** To enhance management capacity of local stakeholders, farmers' association, and governmental agencies on drinking water safety through advancement of related policies, regulations and guidelines, improvement of communication and coordination among various authorities related to drinking-water-safety, and provision of practical scientific decision supports. **Indicator 4:** Several workshops; Several agreements or memorandums; Two national or international tours; A website; Several trainings and training materials; Several technical guidance documentations; Several annual coordination meetings;	**4.1. Investigate current policy mechanisms and provide suggestions on laws, regulations, and environmental guidelines on rural drinking water safety**								
	4.1.1 Investigate the basic national framework based on baseline studies for achieving rural drinking water safety		X			MWR, CICETE	UNDP	71300 National Consultants 74500 Reporting	2,000 1,000
	4.1.2 Carry out national (or international) visits to gain experience and guidance on policy mechanisms of drinking water safety with supports from governmental departments and non-governmental organizations (NGOs)		X			MWR, CICETE, Liaoning	Cost sharing: Sichuan	74500 National/International Study tour	20,000
							Cost sharing: Liaoning (CCCBL)	74500 National/International Study tour	10,000
	4.1.3 Organize workshops and hold meetings to discuss and analyze policy mechanisms for managing drinking water safety in Chinese rural areas		X			MWR, CICETE	Cost sharing: Sichuan	71200 International Consultants 71300 National Consultants 74500 Workshops	3,000 2,000 5,000
	4.1.4 Provide suggestions for national/local laws, regulations, and environmental guidelines related to management of drinking water safety, protection of water sources and quality, and organization of farmers' associations		X			MWR, CICETE	UNDP	71200 International Consultants 71300 National Consultants	4,000 3,000

A set of decision-support tools; Several reports.	Subtotal (4.1)						UNDP Sichuan Liaoning (CC)		$10,000 $30,000 $10,000
	4.2. Enhance coordination and communication among different regulatory authorities and stakeholders related to drinking water safety in each demonstration project area								
	4.2.1 Organize workshops to discuss and analyse roles and responsibilities of and coordination methods among different authorities in managing drinking water safety issues and controlling waterborne diseases in each pilot project area		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Workshops	8,000 8,000 6,000
	4.2.2 Develop agreements or memorandum for ensuring effective coordination among different authorities in each project area		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	74500 Reporting	2,000
	4.2.3 Engage key stakeholders in a broad-based way to cultivate a sense of ownership among them		X	X	X	CICETE, Sichuan, Heilongjiang. Liaoning	Cost sharing: Liaoning (CCCBL)	71200 International Consultants 71300 National Consultants 74500 Workshops 74500 Other Training	6,000 4,000 15,000 5,000

	4.2.4 Provide suggestions of efficient monitoring and evaluation mechanisms on functions and roles of drinking-water regulatory agencies		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Workshops	3,000 2,000 4,000
	4.2.5 Hold annual coordination meetings and prepare summary reports		X	X	X	CICETE, Sichuan, Heilongjiang; Liaoning	UNDP	71200 International Consultants 71300 National Consultants 74500 Workshops 74500 Reporting	3,000 3,000 4,000 2,000
	Sub-total (4.2)						UNDP Liaoning (CCBL)		$45,000 $30,000
	4.3. Increase management efficiencies thru (ICT) for each component of the project								
	4.3.1 Develop the specification for the website. (The website should provide national/local policies	X	X	X		MWR, CICETE, Sichuan, Heilongjiang, Liaoning	UNDP	71300 National Consultants	5,000
	4.3.2 Issue a sub-contract for website establishment, maintenance and updating	X	X	X		MWR, CICETE, Sichuan, Heilongjiang, Liaoning	UNDP	72100 Service Contract	10,000

	4.3.3 Establish internet access arrangements for the recipients	X	X	X		MWR, CICETE, Sichuan, Heilongjiang,	UNDP	74500 Equipment Purchase 75100 Facilities and Administration	15,000 2,000
	4.3.4 Initiate website	X	X	X		MWR, CICETE, Sichuan, Heilongjiang,	UNDP	75100 Facilities and Administration	3,000
	Sub-total (4.3)						UNDP		$35,000
	4.4. Improve management effectiveness of drinking-water-safety regulatory authorities thru advancement of effective decision-support tools in each demonstration project area								
	4.4.1 Invite renowned international experts to delivery training courses to local decision makers, on topics of advanced wastewater treatment technologies, optimal drainage network design, and integrated environmental risk-assessment and decision-analysis etc.		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 74500 Other Training	10,000 30,000
	4.4.2 Identify specialist support services required for each project		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants	6,000 4,000

	4.4.3 Conduct a water source vulnerability assessment (SVA) to identify potential applications of new technology and facilitating their integration		X	X	X	CICETE, Sichuan, Heilongjiang, Liaoning	Cost sharing: Liaoning (CCCBL)	71200 International Consultants 71300 National Consultants 74500 Workshops	10,000 10,000 20,000
	4.4.4 Enhance technical supporting capacities of governmental authorities in adopting new cost-effective technologies		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Other Training	6,000 4,000 20,000
	4.4.5 Improve understanding and awareness of local governmental authorities on key issues related to drinking-water through advancement of flexible and sound risk-assessment, early-warning and emergency management systems		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Other Training	6,000 4,000 20,000
	4.4.6 Promote community-based solutions for water conservation and re-use and related water efficiency/conservation communications campaign		X	X	X	CICETE, Sichuan, Heilongjiang, Liaoning	Cost sharing: Liaoning (CCCBL)	71200 International Consultants 71300 National Consultants 74500 Other Training	8,000 7,000 35,000

	4.4.7 Enhance collaboration capabilities among different governmental departments and NGOs of water governance, water pollution control, and waterborne disease control through establishment of scientific policy-analysis and management tools		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Other Training	8,000 7,000 25,000
	4.4.8 Analyse interactions of water governance, waterborne disease control, water resources management, water pollution control, and economic development		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Workshops	8,000 7,000 15,000
	4.4.9 Promote community-based solutions for water conservation and re-us, and conduct training activities on technology maintenance and community water resource management		X	X	X	CICETE, Sichuan, Heilongjiang, Liaoning	Cost sharing: Liaoning (CCCBL)	71200 International Consultants 71300 National Consultants 72100 Training Materials 74500 Other Training	6,000 4,000 5,000 15,000

	4.4.10 Enhance management capability of rural decision makers through designing user-friendly decision support systems for integrating the above components into a general framework		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 72100 Service Contract 72100 Training Materials 74500 Other Training	10,000 10,000 5,000 25,000
	4.4.11 Prepare decision-tree and seek ratification at appropriate government level		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Workshops	8,000 7,000 5,000
	4.4.12 Prepare technical guidance documentation and launch related training activities		X	X	X	CICETE, Sichuan, Heilongjiang, Liaoning	UNDP	71200 International Consultants 71300 National Consultants 72100 Training Materials 74500 Other Training	6,000 4,000 5,000 25,000
	Sub-total (4.4)						UNDP Cost sharing Liaoning (CCGBL)		$260,000 $140,000
Output 5 : Demonstration	**5.1. Select appropriate projects using a participatory approach**								

Pilot Projects **Target 5:** To improve and demonstrate farmer's capability in achieving drinking water safety and controlling waterborne diseases by means of relying on practical science technologies, and to provide information for project dissemination and future training. **Indicator 5:** Implementation plan for each demonstration project; Several stakeholders meeting; Equipments for each demonstration project; Several workshops; Several national or international tours; Several trainings and training materials; Several progress reports and final reports.	5.1.1 Identify potential demonstration projects for improving drinking water safety in rural areas		X			CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Workshops	8,000 7,000 15,000
	5.1.2 Select demonstration projects and develop outline plan for presentation at first annual review		X			CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Reporting	14,000 12,000 4,000
	Sub-total(5.1)						UNDP		US$60,000
	5.2. Prepare detailed implementation plans for selected projects[3]								
	5.2.1 Assess technical development, environmental and social needs for each demonstration project		X			CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Workshops	3,000 2,000 3,000
	5.2.2 Carry out national (or international) field visits to gain experience and guidance from similar applications in China and overseas as required		X			CICETE, Sichuan, Heilongjiang	UNDP	74500 National/International Study tour	27,000

[3] to be undertaken by farmers' associations in partnership with other project stakeholders

	5.2.3 Optimize technical, environmental and social parameters for the selected demonstration projects		X			CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants	4,000 3,000
	5.2.4 Establish an appropriate scientific and technical support platform for each project		X			CICETE, Sichuan, Heilongjiang	UNDP	75100 Facilities & Administration	3,000
	5.2.5 Identify financing needs associated with each demonstration project		X			CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants	4,000 3,000
	5.2.6 Finalise design and implementation plan for each demonstration project		X			CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Reporting	3,000 2,000 3,000
	5.2.7 Hold stakeholders meeting to agree and endorse the project plan		X			CICETE, Sichuan, Heilongjiang	UNDP	74500 Workshops	5,000
	Sub-total (5.2)						UNDP		$65,000
	5.3. Implement demonstration projects of achieving rural drinking water safety								

	5.3.1 Make financing mechanisms available such as micro-credit schemes and investment from enterprises and third parties to encourage and support farmers (through farmers' associations)		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants	5,000
	5.3.2 Conduct life-cycle assessment of the demonstration works		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 74500 Workshops	5,000 3,000 12,000
	5.3.4 Establish demonstration projects and commence project activity for achieving safe and clean water supply and effective waterborne disease control		X	X	X	CICETE, Sichuan, Heilongjiang	Cost sharing: Sichuan	72200 Equipment purchase 75000 GMS to UNDP 75100 Facilities and Administration 72200	1,540,000 25,000 75,000
							Cost sharing: Heilongjiang	Equipment Purchase 75000 GMS to UNDP 75100 Facilities and Administration	1,340,000 20,000 60,000

	5.3.5 Initiate monitoring and evaluation activities of demonstration projects and launch related training programs for project stakeholders		X	X	X	CICETE, Sichuan, Heilongjiang	Cost sharing: Sichuan	74500 Other Training 75100 Facilities and Administration	40,000 10,000
							Cost sharing: Heilongjiang	74500 Other Training 75100 Facilities and Administration	40,000 10,000
	5.3.6 Organize workshops (include national or international experts, local governmental authorities, and representatives in farmers' drinking-water associations) to discuss and suggest water-right management and water pricing mechanisms		X	X	X	CICETE, Sichuan, Heilongjiang	Cost sharing: Sichuan	71200 International Consultants 71300 National Consultants 74500 Workshops	8,000 7,000 15,000
							Cost sharing: Heilongjiang	71200 International Consultants 71300 National Consultants 74500 Workshops	8,000 7,000 15,000
	Sub-total (5.3)						UNDP Sichuan Heilongjiang		$25,000 $1,720,000 $1,500,000
	5.4. Report on demonstration projects								

	5.4.1 Present selected projects and outline implementation plans at first annual review		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	74500 Reporting 74500 Workshops	1,000 1,000
	5.4.2 Present progress reports at mid-term review		X	X	X	CICETE, Sichuan, Heilongjiang	Cost sharing: Sichuan	74500 Reporting 74500 Workshops	3,000 3,000
	5.4.3 Prepare draft final reports for approval		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	74500 Reporting	3,000
	5.4.4 Present final reports at final project workshop		X	X	X	CICETE, Sichuan, Heilongjiang	UNDP	74500 Reporting 74500 Workshops	2,000 3,000
	Sub-total (5.4)						UNDP Cost sharing: Sichuan		$10,000 $6,000
Output 6: Project Dissemination[4] **Target 6:** To promote successful experience of the	**6.1. Summarise the lessons and experiences**								
	6.1.1 Hold a final workshop to present summaries of the projects				X	MWR, CICETE, Sichuan, Heilongjiang,	UNDP	74500 Workshops 74500 Reporting	18,000 3,000

[4] Output 5 to be overseen by the National Programme Management Office

innovative and practical science technologies of drinking water safety to a wider audience in China and other developing countries. **Indicator 6:** Several final workshops; Several training materials and manuals; Symposia in China and abroad; Several trainings; Updated website.	6.1.2 Prepare material and run a training course for potential future high-level project developers and trainers				X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants 72100 Training Materials 74500 Other Training	7,000 8,000 8,000 12,000
	Sub-total (6.1)						UNDP		$56,000
	6.2. Prepare training manuals, guidelines and educational material								
	6.2.1 Based on the project experience, prepare training manuals and guidelines to advise on and promote good practice in safe drinking-water provision, NPS pollution control, eco-environmental protection, national/local policies, sanitation, and healthcare etc.			X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	72100 Training Materials	15,000
	6.2.2 Produce training manuals and guidelines			X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	72100 Training Materials	10,000
	6.2.3 Make training manuals, guidelines and other relevant educational material available on website			X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	72100 Training Materials	15,000
	Sub-total (6.2)						UNDP		$47,000

	6.3. Organise practical training courses in ensuring drinking water safety and upgrade management level							
	6.3.1 Identify specific needs of the local farming communities			X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 4,000 71300 National Consultants 3,000
	6.3.2 Select learning resources to meet individual learning needs			X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	72100 Training Materials 6,000
	6.3.3 Organize training courses at the level of village and township appropriate to specific needs. Sufficient courses will be organised to enable full participation of interested parties making due allowance for essential farming and family commitments			X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 3,000 71300 National Consultants 3,000 72100 Training Materials 3,000 74500 Other Training 10,000
	Sub-total (6.3)						UNDP	$25,000
	6.4. Promote the concept of rural drinking water safety to a wider audience							
	6.4.1 Update website at key stages within the project (e.g. after mid-term review and final project workshop)		X	X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	75100 Facilities & Administration 3,000
	6.4.2 Make provision for continuing maintenance of website after project completion		X	X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	74500 Rental & Maintenance 4,000

	6.4.3 Consider establishing a GPA network to include member units such as government, NGOs and research institutes.		X	X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP	71200 International Consultants 71300 National Consultants	1,500 1,500
	6.4.4 Organise or participate in symposia in China and abroad		X	X	X	MWR, CICETE, Sichuan, Heilongjiang	UNDP Sichuan	74500 Workshops 74500 Workshops	10,000 2,000
	Sub-total (6.4)						UNDP Sichuan		$20,000 $2,000

Output 7: capacity building for providing scientific supports **Target 7 :** to enhance management capacity of local stakeholders, farmers' association, and governmental agencies **Indicators :** Eight or more workshops and meetings Ten or more study tours A website and platform Progress and annual reports Ten or more training programs	**7.1. Investigating and reviewing current policy, mechanism, law, regulation, and specifications on water resources management in rural areas in China**								
	7.1.1 Initiate national (or international) visits to gain experience and guidance on policy mechanisms of rural water resources management.		X	X		MWR, CICETE	UNDP	74500 Study tour	8,000
	7.1.2. Organize workshops and hold meetings to discuss and analyze policy mechanisms for water resources management in rural areas.		X	X		MWR, CICETE	UNDP	71200 International Consultants 71300 National Consultants 74500 Reporting	5,000 2,000 1,000

Three or more public hearing Agreements	7.1.3. Provide suggestions for national/local laws and regulations related to water resources management.		X	X		MWR, CICETE	UNDP	71200 International Consultants 71300 National Consultants	5,000 3,000
	7.1.4. Provide suggestions on long-term effective water-supply mechanisms and sound pricing policies in rural areas.		X	X		MWR, CICETE	UNDP	74500 Reporting 72100 Service Contract	4,000 4,000
	Sub-total (7.1)						UNDP		$32,000
	7.2. Enhance coordination and communication among different authorities of water resources management in rural areas								
	7.2.1. Organize workshops to discuss and analyse roles and responsibilities of and coordination methods among different authorities in managing rural water resources in the pilot	X	X	X	X	CICETE, Xinjiang	UNDP	71300 National Consultants 72100 Training Materials	2,500 2,000

	project area.						Cost sharing Xinjiang	72200 Equipment purchase 74500 Rental & Maintenance	4,500 3,000
	7.2.2. Develop agreements or memorandum for ensuring effective coordination among related authorities of water resources management.	X	X	X	X	CICETE, Xinjiang	UNDP	71200 International Consultants 74500 Reporting	2,500 2,000
							Cost sharing Xinjiang	72100 Service Contract 71300 National Consultants	4,000 3,500
	7.2.3. Provide suggestions of efficient monitoring and evaluation mechanisms on	X	X	X	X	CICETE, Xinjiang	UNDP	74500 Reporting	2,500

	functions of the related authorities.						Cost sharing: Xinjiang	74500 Other Training 72100 Service Contract	5,500 2,000
	7.2.4. Hold annual coordination meetings and prepare summary reports.	X	X	X	X	CICETE,Xinjiang	UNDP	72100 Training Materials 72200 Training Facilities	2,500 2,000
							Cost sharing Xinjiang	74500 Rental & Maintenance 72100 Service contract 74500 Reporting	4,000 2,500 1,000
	Sub-total (7.2)						UNDP Cost sharing: Xinjiang		$16,000 $30,000

	7.3. Increase management efficiencies through ICT								
	7.3.1. Develop the specification for the project website.	X	X	X	X	CICETE, Xinjiang	UNDP	71200 International Consultants 71300 National Consultants	5,000 2,000

							Cost sharing Xinjiang	72100 Training Material 74500 Other Training 74500 Equipment 74500 Rental & Maintenance	2,000 2,000 4,000 2,000
	7.3.2. Issue a sub-contract for website establishment, maintenance and updating.	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract 72100 Training materials	3,000 3,000
							Cost sharing Xinjiang	74500 Equipment 74500 Rental & Maintenance	6,500 6,000
							UNDP	72200 Equipment purchase	5,000
							Cost sharing Xinjiang	72200 Equipment Purchase 72200 Equipment Purchase	4,500 6,000
	7.3.3. Establish internet access arrangements for the recipients.	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract	5,000

							Cost sharing Xinjiang	74500 Equipment 74500 Rental & Maintenance	9,000 8,000
	7.3.4. Initiate website.	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Training Materials 72200 Training Facilities	3,000 2,000
							Cost sharing Xinjiang	72100 Service Contract 74500 Reporting	3,000 3,000
	Sub-total (7.3)						UNDP Cost-sharing Xinjiang		$28,000 $56,000
	7.4. Improve management effectiveness in the demonstration project areas								
	7.4.1. Invite international (or national) experts to conduct technical training.	X	X	X	X	CICETE, Xinjiang	UNDP	71200 International Consultants 71300 National Consultants	6,000 4,000

							Cost sharing: Xinjiang	72100 Training Materials 72200 Training Facilities 72100 Service Contract	12,000 10,000 3,000
	7.4.2. Identify specialist support services required.	X	X	X	X	CICETE, Xinjiang	UNDP	71200 International Consultants	9,000
							Cost sharing: Xinjiang	71300 National Consultants 74500 Reporting 72100 Service Contract	10,000 3,000 2,000
	7.4.3. Organize international tours in developed countries.	X	X	X	X	CICETE, Xinjiang	UNDP	71200 International Consultants	9,000
							Cost sharing Xinjiang:	74500 International Study tour 72100 Training Materials 72200 Training Facilities	10,000 5,000 10,000

	7.4.4. Enhance local water resources utilization through compensation mechanisms of ecological water consumption and development of water-saving irrigation technologies in the demonstration project area.	X	X	X	X	CICETE, Xinjiang	UNDP	71300 National Consultants 72100 Training Materials 72200 Training Facilities	5,000 3,000 2,000
							Cost sharing Xinjiang	72200 Equipment purchase 74500 Rental & Maintenance 72100 Service Contract	18,000 10,000 2,000
	7.4.5. Establish pricing systems of water consumptions to enhance water right management.	X	X	X	X	CICETE, Xinjiang	UNDP	71200 International Consultants	9,000
							Cost sharing Xinjiang	71300 National Consultants 72100 Service Contract 74500 Reporting	10,000 3,000 2,000
	7.4.6. Prepare decision-tree and seek ratification at appropriate government	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Training Materials	9,000

	level.						Cost sharing Xinjiang	72200 Training Facilities 72200 Equipment purchase 72100 Service Contract 74500 Reporting	15,000 10,000 2,000 3,000
	7.4.7. Prepare technical guidance documentation.	X	X	X	X	CICETE, Xinjiang	UNDP	74500 Reporting 71300 National Consultants	3,000 6,000
							Cost sharing Xinjiang	72100 Service Contract 74500 Other Training	5,000 5,000
	Sub-total (7.4)						UNDP Cost sharing Xinjiang		$65,000 $150,000
Output 8 : – demonstration pilot projects **Target: 8** : To improve and	**8.1. Select an appropriate project using a participatory approach**								

demonstrate sustainable water resources management in rural areas by means of relying on practical science technologies. Also, to provide information for project dissemination and future training. **Indicator :** Four or more study tours Plans for demonstration project Five or more workshops and meetings Progress and annual reports	8.1.1. Identify the potential demonstration project for seeking sustainable water resources management in rural areas.	X	X			CICETE, Xinjiang	UNDP	71300 National Consultants	5,000
							Cost sharing: Xinjiang	72100 Training Materials 72200 Training Facilities 74500 Reporting	4,000 2,500 1,000
	8.1.2. Select the demonstration project and develop outline plan for presentation at first annual review.	X	X			CICETE,Xinjiang	UNDP	71300 National Consultants	5,000
							Cost sharing: Xinjiang	72100 Training Materials 74500 Reporting	5,000 2,500
	Sub-total (8.1)						UNDP Cost sharing: Xinjiang		$10,000 $15,000
	8.2. Prepare detailed implementation plans for selected projects (to be undertaken by farmers' associations in partnership with other project stakeholders)								
	8.2.1. Assess technical development, environmental and social needs for the selected demonstration project.			X	X	CICETE, Xinjiang	UNDP	National Consultants	2,000
							Cost sharing (Xinjiang)	74500 Study tour 72100 Service Contract	3,000 2,000

	8.2.2. Carry out national (or international) field visits to gain experience and guidance from similar applications in China and overseas as required.			X	X	CICETE, Xinjiang	UNDP	71300 National Consultants	2,000
							Cost sharing Xinjiang	74500 Study tour 72100 Service Contract	3,000 2,000
	8.2.3. Establish an appropriate scientific and technical support platform.			X	X	CICETE, Xinjiang	UNDP	71300 National Consultants	2,000
							Cost sharing: Xinjiang	72100 Training Materials 72200 Training Facilities	3,000 2,000
	8.2.4. Identify financing needs.			X	X	CICETE, Xinjiang	UNDP	74500 Reporting	2,000
							Cost sharing: Xinjiang	72100 Service Contract 74500 Reporting	3,000 2,000
	8.2.5. Finalise design and implementation plan.			X	X	CICETE,Xinjiang	UNDP	74500 Reporting	1,000
							Cost sharing Xinjiang	71300 National Consultants 72100 Service Contract	3,000 2,000

	8.2.6. Hold stakeholders meeting to agree and endorse the project plan.			X	X	CICETE, Xinjiang	UNDP	71300 National Consultants	1,000
							Cost sharing Xinjiang	74500 Rental & Maintenance	3,000
								72100 Service Contract	2,000
	Sub-total (8.2)						UNDP Cost sharing: Xinjiang		$10,000 $30,000
	8.3. Implement demonstration projects of achieving rural drinking water safety								
	8.3.1. Make financing mechanisms available such as micro-credit schemes and investment from enterprises and third parties to encourage and support farmers (through farmers' associations).	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract	6,000
							Cost sharing: Xinjiang	72100 Training Materials	10,000
								72200 Training Facilities	20,000
								72200 Equipment purchase	10,000
								74500 Rental & Maintenance	20,000
	8.3.2. Establish demonstration projects and commence project activity.	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract	1,000

							Cost sharing: (Xinjiang)	71300 National Consultants 72100 Training Materials 72200 Training Facilities	20,000 10,000 20,000
	8.3.3. Initiate monitoring and evaluation activities of the demonstration project.	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract	1,000
							Cost sharing: (Xinjiang)	71300 National Consultants 72100 Training Materials 72200 Training Facilities 74500 Reporting	15,000 20,000 30,000 5,000
	Sub-total (8.3)						UNDP Cost sharing: Xinjiang		$8,000 $180,000
	4. Report on demonstration projects								
	8.4.1. Present selected projects and outline implementation plans at	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract	2,500

	first annual review.						Cost sharing: Xinjiang	74500 Reporting	3,750
	8.4.2. Present progress reports at mid-term review.	X	X	X	X	CICETE, Xinjiang	UNDP	74500 Reporting	2,500
							Cost sharing: Xinjiang	72100 Service Contract	3,750
	8.4.3. Prepare draft final reports for approval. (C4)	X	X	X	X	CICETE, Xinjiang	UNDP	74500 Reporting	2,500
							Cost sharing: Xinjiang	72100 Service Contract	3,750
	8.4.4. Present final reports at final project workshop.	X	X	X	X	CICETE, Xinjiang	UNDP	74500 Reporting	2,500
							Cost sharing: Xinjiang	72100 Service Contract 74500 Rental & Maintenance	1,750 2,000
	Sub-total (8.4)						UNDP Cost sharing: Xinjiang		$10,000 $15,000
Output 9 : project dissemination **Target 9 :** To promote successful experience of the	**9.1. Summaries**								
	9.1.1. Hold a final workshop to present summaries of the demonstration project.	X	X			MWR, CICETE, Xinjiang	UNDP	74500 Reporting 72100 Service Contract	5,500 2,000

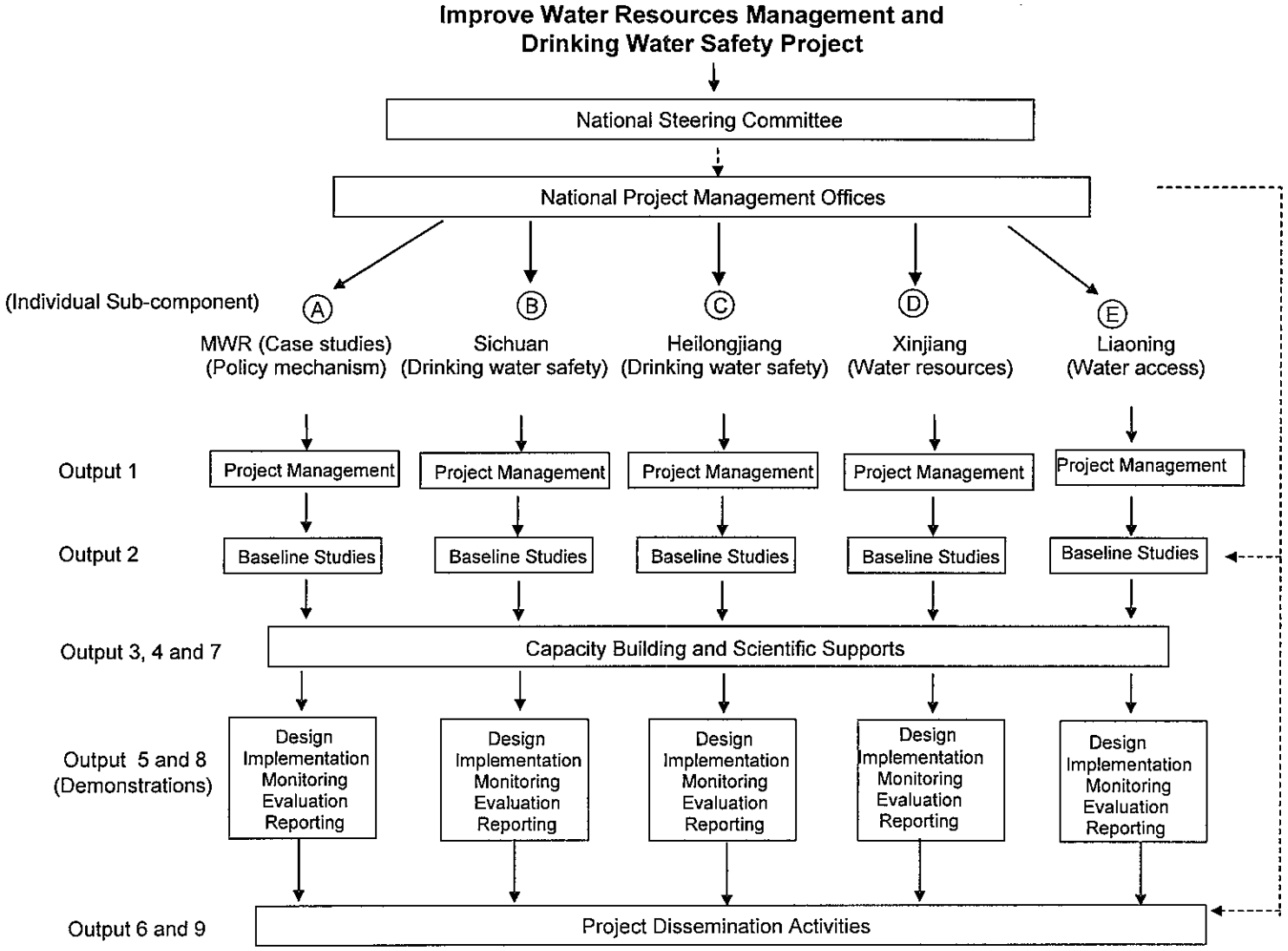
innovative and practical science technologies of rural water resources management to a wider audience in China and abroad. **Indicator :** Final workshops and meetings Training programs and guidelines Study tours							Cost sharing: Xinjiang	74500 Rental & Maintenance	15,000
	9.1.2. Prepare material and run a training course for potential future high-level project developers and trainers.	X	X			CICETE, Xinjiang	UNDP	74500 Reporting 72100 Service Contract	5,500 2,000
							Cost sharing: Xinjiang	71300 National Consultants 72100 Training Materials 72200 Training Facilities	5,000 5,000 5,000
	Sub-total (9.1)						UNDP Cost sharing: Xinjiang		$15,000 $30,000
	9.2. Prepare training manuals, guidelines and educational material								
	9.2.1. prepare training manuals and guidelines to advise on and promote	X	X	X	X	CICETE, Xinjiang	UNDP	71300 National Consultants	5,000

	good practice in water-saving irrigation techniques, scientific planning for rural water resources allocation, ecological agricultural development, ecological rehabilitation, and design, construction and management of water-supply facilities, and related national/local laws and regulations etc.						Cost sharing: Xinjiang	72100 Training Materials 74500 Reporting 74500 Rental & Maintenance	3,000 2,000 5,000
	9.2.2. Produce training manuals and guidelines.	X	X	X	X	CICETE, Xinjiang	UNDP	71300 National Consultants	5,000
							Cost sharing: Xinjiang	72100 Training Materials 72200 Training Facilities 74500 Reporting	6,000 2,000 2,000
	9.2.3. Make training manuals, guidelines and other relevant educational material available on project website. (C4)	X	X	X	X	CICETE, Xinjiang	UNDP	74500 Reporting 72100 Service Contract	2,000 3,000

							Cost sharing (Xinjiang)	71300 National Consultants 72100 Training Materials 72200 Training Facilities 74500 Rental & Maintenance	4,000 2,000 3,000 1,000
	Sub-total (9.2)						UNDP Cost sharing Xinjiang		$15,000 $30,000
	3. Training for selected farmer's association								
	9.3.1. Identify specific needs of the local farming communities. (C1, C4)	X	X	X	X	CICETE, Xinjiang	UNDP	74500 Other Training	3,000
							Cost sharing Xinjiang	74500 Study tour 72100 Service Contract	3,000 2,000
	9.3.2. Select learning resources to meet individual learning needs. (C1, C4)	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract 74500 Other Training	1,500 1,500

							Cost sharing: Xinjiang	71300 National Consultants 72100 Training Materials	2,000 3,000
	9.3.3. Organize training courses at the level of village and township appropriate to specific needs. Sufficient courses will be organised including rural water resources management, water-saving irrigation techniques, sustainable agricultural production skills, ecological rehabilitation in arid/semi-arid regions and scientific planning of rural water resources allocations.	X	X	X	X	CICETE, Xinjiang	UNDP	71300 National Consultants	4,000
							Cost sharing: Xinjiang	72100 Training Materials 72200 Training Facilities	3,000 2,000
	Sub-total (9.3)						UNDP Cost sharing: Xinjiang		$10,000 $15,000
	9.4. Promote the concept of rural sustainable water resources management to a wider audience								
	9.4.1. Update website at key stages within the project (e.g. after mid-term review and final project workshop). (C4)	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract	2,500
							Cost sharing: Xinjiang	72100 Training Materials	3,750
	9.4.2. Make provision for continuing maintenance of website after project	X	X	X	X	CICETE,Xinjiang	UNDP	72100 Service Contract	2,500

	completion. (C2, C3,C4)						Cost sharing: Xinjiang	72100 Training Materials	3,750
	9.4.3. Consider establishing a GPA network to include member units such as government, NGOs and research institutes. (C4)	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract	2,500
							Cost sharing: Xinjiang	71200 International Consultants 71300 National Consultants	1,750 2,000
	9.4.4. Organise or participate in symposia in China and abroad. (C4)	X	X	X	X	CICETE, Xinjiang	UNDP	72100 Service Contract	2,500
							Cost sharing: Xinjiang	71200 International Consultants 71300 National Consultants	1,750 2,000
	Sub-total (9.4)						UNDP Cost sharing: Xinjiang		$10,000 $15,000
TOTAL							**UNDP** **$1,542,000** **Sichuan** **$1,800,000** **Heilongjiang** **$1,500,000** **Xinjiang** **$900,000** **Liaoning(CCCBL)** **$150,000** **TOTAL** **$5,892,000**		


Improve Water Resources Management and Drinking Water Safety Project
National Steering Committee
National Project Management Offices
(Individual Sub-component)
A
B
C
D
E
MWR (Case studies) (Policy mechanism)
Sichuan (Drinking water safety)
Heilongjiang (Drinking water safety)
Xinjiang (Water resources)
Liaoning (Water access)
Output 1
Project Management
Output 2
Baseline Studies
Output 3, 4 and 7
Capacity Building and Scientific Supports
Output 5 and 8 (Demonstrations)
Design
Implementation
Monitoring
Evaluation
Reporting
Output 6 and 9
Project Dissemination Activities

Annual Work Plan

China - Beijing

Award Id: 00047419

Award Title: Water Resources Management and Drinking Water Safety

Year: 2007

Report Date: 27/9/2007

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
			Start	End		Fund	Donor	Budget Descr		Amount US$
00056957	Water management	A1. Project Management			CPR-China International Centre	04000	UNDP	71200	International Consultants	5,000.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	8,000.00
					CPR-China International Centre	04000	UNDP	71600	Travel	6,000.00
					CPR-China International Centre	04000	UNDP	72200	Equipment and Furniture	15,000.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	24,500.00
		A2. Project Management			CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	20,000.00
		A3. Project Management			CPR-China International Centre	30000	PRIVSECT	71200	International Consultants	1,000.00
					CPR-China International Centre	30000	PRIVSECT	74500	Miscellaneous Expenses	4,000.00
		B1. Baseline Analysis			CPR-China International Centre	04000	UNDP	71200	International Consultants	33,800.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	31,000.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	39,000.00
		B2. Baseline Analysis			CPR-China International Centre	30071	CPR	71300	Local Consultants	30,000.00
		B3. Baseline Analysis			CPR-China International Centre	30000	PRIVSECT	71300	Local Consultants	3,000.00
		C1. Capacity Building			CPR-China International Centre	04000	UNDP	71200	International Consultants	22,000.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	43,000.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	3,000.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	95,000.00
		C2. Capacity Building			CPR-China International Centre	30071	CPR	71300	Local Consultants	18,000.00
					CPR-China International Centre	30071	CPR	72100	Contractual Services-Companie	3,000.00
					CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	30,000.00
		C3. Capacity Building			CPR-China International Centre	30000	PRIVSECT	71300	Local Consultants	3,000.00
					CPR-China International Centre	30000	PRIVSECT	74500	Miscellaneous Expenses	3,000.00
		D1. Demonstration			CPR-China International Centre	04000	UNDP	71200	International Consultants	4,000.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	5,000.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	54,000.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	7,000.00
		D2. Demonstration			CPR-China International Centre	30071	CPR	71300	Local Consultants	30,000.00
					CPR-China International Centre	30071	CPR	72100	Contractual Services-Companie	380,000.00
					CPR-China International Centre	30071	CPR	72200	Equipment and Furniture	450,000.00

Annual Work Plan

China - Beijing

Award Id: 00047419

Award Title: Water Resources Management and Drinking Water Safety

Year: 2007

Report Date: 27/9/2007

Project ID Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
		Start	End		Fund	Donor	Budget Descr		Amount US$
	D2. Demonstration			CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	23,000.00
	Project Support by CICETE			CPR-China International Centre	04000	UNDP	75100	Facilities & Administration	13,000.00
				CPR-China International Centre	30071	CPR	75100	Facilities & Administration	10,000.00
	Project Support by UNDP			CPR-China International Centre	30071	CPR	75100	Facilities & Administration	3,000.00
TOTAL									1,419,300.00
GRAND TOTAL									1,419,300.00

Annual Work Plan

China - Beijing

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Year: 2008

Report Date: 27/9/2007

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
			Start	End		Fund	Donor	Budget Descr		Amount US$
00056957	Water management	A1. Project Management			CPR-China International Centre	04000	UNDP	71200	International Consultants	22,500.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	14,500.00
					CPR-China International Centre	04000	UNDP	71600	Travel	8,000.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	4,000.00
					CPR-China International Centre	04000	UNDP	72200	Equipment and Furniture	13,000.00
					CPR-China International Centre	04000	UNDP	74100	Professional Services	1,200.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	30,000.00
		A2. Project Management			CPR-China International Centre	30071	CPR	72200	Equipment and Furniture	175,000.00
					CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	32,000.00
		B1. Baseline Analysis			CPR-China International Centre	04000	UNDP	71200	International Consultants	17,700.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	13,000.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	51,000.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	124,000.00
		B2. Baseline Analysis			CPR-China International Centre	30071	CPR	71300	Local Consultants	40,000.00
					CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	58,000.00
		C1. Capacity Building			CPR-China International Centre	04000	UNDP	71200	International Consultants	40,000.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	39,500.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	10,000.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	175,500.00
		C2. Capacity Building			CPR-China International Centre	30071	CPR	71300	Local Consultants	26,000.00
					CPR-China International Centre	30071	CPR	72100	Contractual Services-Companie	10,000.00
					CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	89,000.00
		C3. Capacity Building			CPR-China International Centre	30000	PRIVSECT	71200	International Consultants	20,000.00
					CPR-China International Centre	30000	PRIVSECT	71300	Local Consultants	20,000.00
					CPR-China International Centre	30000	PRIVSECT	72100	Contractual Services-Companie	5,000.00
					CPR-China International Centre	30000	PRIVSECT	74500	Miscellaneous Expenses	30,000.00
		D1. Demonstration			CPR-China International Centre	04000	UNDP	71300	Local Consultants	4,000.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	60,000.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	21,000.00
		D2. Demonstration			CPR-China International Centre	30071	CPR	71300	Local Consultants	40,000.00

Annual Work Plan

China - Beijing

Award Id: 00047419

Award Title: Water Resources Management and Drinking Water Safety

Year: 2008

Report Date: 27/9/2007

Project ID Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
		Start	End		Fund	Donor	Budget Descr		Amount US$
	D2. Demonstration			CPR-China International Centre	30071	CPR	72100	Contractual Services-Companie	1,088,000.00
				CPR-China International Centre	30071	CPR	72200	Equipment and Furniture	700,000.00
				CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	70,000.00
	E1. Dissemination			CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	1,000.00
	Project Support by CICETE			CPR-China International Centre	04000	UNDP	75100	Facilities & Administration	17,000.00
				CPR-China International Centre	30071	CPR	75100	Facilities & Administration	57,000.00
	Project Support by UNDP			CPR-China International Centre	30071	CPR	75100	Facilities & Administration	14,500.00
TOTAL									3,141,400.00
GRAND TOTAL									3,141,400.00

Annual Work Plan

China - Beijing

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Year: 2009

Report Date: 27/9/2007

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
			Start	End		Fund	Donor	Budget Descr		Amount US$
00056957	Water management	A1. Project Management			CPR-China International Centre	04000	UNDP	71200	International Consultants	10,000.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	8,000.00
					CPR-China International Centre	04000	UNDP	71600	Travel	9,000.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	1,000.00
					CPR-China International Centre	04000	UNDP	74100	Professional Services	1,200.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	25,500.00
		A2. Project Management			CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	35,000.00
		B1. Baseline Analysis			CPR-China International Centre	04000	UNDP	71200	International Consultants	3,500.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	6,000.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	5,000.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	40,000.00
		B2. Baseline Analysis			CPR-China International Centre	30071	CPR	71300	Local Consultants	10,000.00
					CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	50,000.00
		C1. Capacity Building			CPR-China International Centre	04000	UNDP	71200	International Consultants	14,000.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	11,000.00
					CPR-China International Centre	04000	UNDP	72100	Contractual Services-Companie	2,000.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	104,000.00
		C2. Capacity Building			CPR-China International Centre	30071	CPR	71300	Local Consultants	20,000.00
					CPR-China International Centre	30071	CPR	72100	Contractual Services-Companie	7,000.00
					CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	50,000.00
		C3. Capacity Building			CPR-China International Centre	30000	PRIVSECT	71200	International Consultants	6,000.00
					CPR-China International Centre	30000	PRIVSECT	71300	Local Consultants	14,000.00
					CPR-China International Centre	30000	PRIVSECT	74500	Miscellaneous Expenses	30,000.00
		D1. Demonstration			CPR-China International Centre	04000	UNDP	71200	International Consultants	4,000.00
					CPR-China International Centre	04000	UNDP	71300	Local Consultants	3,000.00
					CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	2,000.00
		D2. Demonstration			CPR-China International Centre	30071	CPR	71300	Local Consultants	30,000.00
					CPR-China International Centre	30071	CPR	72100	Contractual Services-Companie	350,000.00
					CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	45,000.00

Annual Work Plan

China - Beijing

Award Id: 00047419

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Year: 2009

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Project ID Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
		Start	End		Fund	Donor	Budget Descr		Amount US$
	E1. Dissemination			CPR-China International Centre	04000	UNDP	71300	Local Consultants	1,000.00
				CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	66,000.00
	E2. Dissemination			CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	90,000.00
	Project Support by CICETE			CPR-China International Centre	04000	UNDP	75100	Facilities & Administration	15,000.00
				CPR-China International Centre	30071	CPR	75100	Facilities & Administration	38,000.00
	Project Support by UNDP			CPR-China International Centre	30071	CPR	75100	Facilities & Administration	11,500.00
TOTAL									1,117,700.00
GRAND TOTAL									1,117,700.00

Annual Work Plan

China - Beijing

Award Id: 00047419

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Year: 2010

Report Date: 27/9/2007

Project ID Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
		Start	End		Fund	Donor	Budget Descr		Amount US$
00056957 Water management	A1. Project Management			CPR-China International Centre	04000	UNDP	71200	International Consultants	17,500.00
				CPR-China International Centre	04000	UNDP	71300	Local Consultants	10,500.00
				CPR-China International Centre	04000	UNDP	71600	Travel	3,400.00
				CPR-China International Centre	04000	UNDP	74100	Professional Services	1,200.00
				CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	25,500.00
	A2. Project Management			CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	22,000.00
	B1. Baseline Analysis			CPR-China International Centre	04000	UNDP	71300	Local Consultants	2,500.00
	C1. Capacity Building			CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	7,000.00
	C2. Capacity Building			CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	2,000.00
	C3. Capacity Building			CPR-China International Centre	30000	PRIVSECT	71300	Local Consultants	1,000.00
				CPR-China International Centre	30000	PRIVSECT	74500	Miscellaneous Expenses	10,000.00
	D1. Demonstration			CPR-China International Centre	04000	UNDP	71300	Local Consultants	3,000.00
	E1. Dissemination			CPR-China International Centre	04000	UNDP	71200	International Consultants	5,000.00
				CPR-China International Centre	04000	UNDP	71300	Local Consultants	6,000.00
				CPR-China International Centre	04000	UNDP	74500	Miscellaneous Expenses	51,000.00
	E2. Dissemination			CPR-China International Centre	30071	CPR	74500	Miscellaneous Expenses	9,000.00
	Project Support by CICETE			CPR-China International Centre	04000	UNDP	75100	Facilities & Administration	3,000.00
				CPR-China International Centre	30071	CPR	75100	Facilities & Administration	21,000.00
	Project Support by UNDP			CPR-China International Centre	30071	CPR	75100	Facilities & Administration	13,000.00
TOTAL									213,600.00
GRAND TOTAL									213,600.00