CHINA CLIMATE CHANGE PARTNERSHIP FRAMEWORK

1. COVER PAGE

Country: China

UNDAF Outcome No. 3: More efficient management of natural resources and development of environmentally friendly behaviour in order to ensure environmental sustainability.

MDG Achievement Fund Outcomes:

I. Mainstreaming environmental issues in national and sub-national policy, planning and investment frameworks.
II. Improving local management of environmental resources and service delivery.
IV. Enhancing capacity to adapt to climate change.

Joint Programme Outcome(s):

(1) Mainstreaming of climate change mitigation and adaptation into national and sub-national policies, planning, and investment frameworks;
(2) Establishment of innovative partnerships and dissemination of technologies to mitigate climate change and increase local access to sustainable energy;
(3) Accelerated action by China in assessing vulnerability to climate change and developing adaptation plans and mechanisms.

Programme/project Title: China Climate Change Partnership Framework Programme/project Duration: 3 years, from 2008 to 2010 Fund Management Option: Pass-through Managing or Administrative Agent: UNDP Multi Donor Trust Fund Office, New York	Total estimated Programme/project budget: US $19 million Out of which: 1. Planned resources: • MDG Achievement Fund US $12 million • Private US $ 5 million • Government (in kind) US $ 2 million

Signatures:

On behalf of the Government of China
Ministry of Commerce (MOFCOM) Name: Vice Minister Yi Xiaozhun Signature   Date & Seal
On behalf of the Government of Spain
Ambassador of Spain in China Name: H.E. Mr Carlos Blasco Villa Signature   Date and Seal
On behalf of the United Nations
UN Resident Coordinator in China Name: Mr Khalid Malik Signature   Date & Seal

List of Partners (In alphabetical order)

UN	NATIONAL
1. FAO	1. China Council for International Cooperation on Environment and Development, Ministry of Environmental Protection (CCICED/MEP)
2. ILO	2. China International Centre for Economic & Technical Exchanges (CICETE/ MOFCOM)
3. UNDP	3. China International Institute of Multinational Corporations (CIIMC)
4. UNEP	4. China Society for Promotion of the Guangcai Programme
5. UNESCAP/UNAPCAEM	5. Energy Bureau, NDRC
6. UNESCO	6. Ministry of Agriculture (MOA)
7. UNICEF	7. Ministry of Health (MOH)
8. UNIDO	8. Ministry of Human Resources and Social Security (MHRSS)
9. WHO	9. Ministry of Water Resources (MOWR)
	10. Office of National Leading Group on Climate Change, National Development and Reform Commission (ONLGCC/NDRC)

2. EXECUTIVE SUMMARY

Climate change presents a challenge to the achievement of the MDGs and sustaining the hard won gains of developing countries. Global climate change threatens the environment, the health, and the livelihood of the entire planet and its negative impacts will be most evident in the areas of water resources, human health, agricultural sustainability, natural ecosystems, and frequency and scale of natural disasters. These are all areas in which developing countries, and especially their poorer inhabitants, are particularly vulnerable. Given implications for development, environment, and poverty alleviation, climate change mitigation and adaptation have now become primary challenges.

China is a critical arena for addressing climate change, because: a) it is the country with the largest overall national greenhouse gas emissions, b) has an extremely large population and c) its CO_2 emissions growth is greater than any other nation. Given the evidence that human emissions of greenhouse gases are causing climate change and the implications for the future of development, China's rapidly growing emissions have profound implications worldwide. In addition to this, with per capita water availability already a quarter of the world's average, and with half the country experiencing significant land degradation issues, it is now clear that additional pressures could constrain the ability of China to sustain its own poverty reduction achievements as well as catalysing a reversal of progress in certain areas. However, given its rapid development and massive ongoing investments in new, and basic, infrastructure, China has a key opportunity to avoid and reduce future emissions.

The First National Assessment of Global Climate Change, issued by the Government of China in January 2007, indicates climate change's extreme potential impacts on food production, land and water resources, as well as its impact on frequency and magnitude of extreme weather conditions. Further to this, in June 4th 2007, the Government of China published its first National Climate Change Strategy, with the key objective being to achieve targets on mitigation and adaptation.

The joint programme proposed here, building on previous work and experience, aims at: a) incorporating the National Climate Change Strategy guidelines into national policies and legal measures, delivering a shift in climate change policies and policy enforcement, b) improving local capacities and partnerships for financing technologies transfer and replicating innovative technology models and c) ensuring vulnerable communities' adaptation to climate change impacts.

The Government of China attaches increasing importance to environment and development. The 11th Five Year Plan, 2006-2010, is a shift in China's strategy, from a focus on economic growth to a broader vision of a balanced 'Xiaokang' society, in which the needs of the economy are balanced with broader environmental and social needs. It includes targets to increase energy efficiency by 20 percent and the use of renewable energy, from 5 percent today, to 10 percent by 2010.

China's climate change related needs cover a broad spectrum of sectors, and in light of this diversity a UN multi-agency partnership presents a unique and unparalleled opportunity to address climate change issues in a wide-ranging way, unlikely to be achieved by any single organization independently pursuing development in China. The joint programme aims to provide policy and technical support to the Government of China and to the private sector, through expertise held by the nine resident UN agencies, by the one non-resident agency and by the many national partners involved. The Government of China is looking to the UN as a key partner on climate change, not only because of the UN's neutrality in the international area, but also because of its proven ability to deliver in a timely and effective manner. Work is driven by the UN Theme Group on Energy and Environment, which has led the design of this proposal.

By focusing on strategic and highly cost effective sectors, the programme serves as a catalyst for structural changes and as a base for further mobilization of co-financing from the international community, from the private sector as well as from the Government of China itself. The implementation of this programme through the UN system in China will channel the transfer of technologies in compliance with international environmental standards and will facilitate their effective integration at policy level.

The strategy of the programme is to support policies needed to achieve climate change goals and to develop and disseminate innovative pilot partnerships and technology models on the ground. According to the experience of the UN in China, once a successful pilot is demonstrated, China moves quickly to expand the model and replicate it for wide use. Sustainability is also supported by the strong ownership of Chinese partners in each of the proposed outputs and activities, in both Government and the private sector. Through the International Climate Change Centre to be established through the joint programme, lessons learned, knowledge and experience will be shared globally, with an emphasis on south-south cooperation.

The proposed joint programme will address three major areas: (1) climate change policy, (2) mitigation, and (3) vulnerability assessment and adaptation.

1. In climate change policy, the program addresses the needs for specific and actionable content for supporting the current policy framework. Specifically, it supports a) the China's Climate Change policy, b) the establishment of an International Climate Change Centre in Beijing and c) the formulation of the China's new Energy Law.

2. The mitigation component addresses the areas of energy efficiency technologies, rural renewable energy, and agriculture ecosystem management and planning for improving farming efficiency. Specifically, the programme includes: a) piloting clean coal technology; b) dissemination of heat recovering, energy co-generation, from coal gangue brick process; c) dissemination of biomass pellets in rural areas; d) financing conservation agriculture through CDM; and e) supporting the sustainability of government's rural renewable energy electrification programme. The target is to reduce CO_2 emissions by 100,000 CO_2 tonnes equivalent/year.

3. The adaptation component addresses the areas of: a) poverty reduction, b) agriculture development in the Yellow River Basin, vulnerability assessment and adaptation measures, c) water management in the Yellow River Basin, improved groundwater monitoring in high risk areas to define timely remedial measures, d) health: a strategy for adapting China's health planning and practice to climate change, and e) employment: assessment of vulnerabilities and provision of adaptation strategies. Although China is already investing in projects related to climate change, very little has been done in the area of adaptation, and in this sense tapping on international practices and coordination will be a fundamental contribution of this joint programme. The experiences drawn from this project will feed back into international experience and will provide "road maps" of how to integrate adaptation concerns into development.

Finally, this project constitutes an excellent opportunity to catalyze concerted work among UN organizations in a country with complex problems. The process of consultation among UN agencies and the Chinese Government, identification of priorities, creation of partnerships, implementation and monitoring activities, will constitute a model for replication in other countries, showing ways for more efficient delivery of UN organizations and closer work with national partners towards a common goal.

The joint programme has been developed by the nine UN Agencies in coordination with the respective counterpart Ministries/National/Local Agencies, scientific community, and the private sector, and under the coordination of the UN Theme Group on Energy and Environment, the Ministry of Commerce (MOFCOM) and the Office of National Climate Change Coordination Committee at the National Development and Reform Commission (ONLGCC/NDRC).

3. SITUATION ANALYSIS

Global Significance of Climate Change: Global climate change caused by anthropogenic emissions of greenhouse gases, threatens the environment, health, and livelihoods worldwide. Climate change's negative impacts are especially pronounced in the areas of water resources, human health, agricultural sustainability, natural ecosystems and environment, and frequency and scale of natural disasters, all areas in which developing countries are particularly vulnerable. Among them, the poorest part of their

population is the most vulnerable and, at the same time, the part which receives less attention in terms of adaptation and mitigation measures implemented and vulnerability assessment.
According to the 2004 National Communication on Climate Change, the ground temperature in China could rise by 1.5-2.8°C by 2030; 2.3-3.3°C by 2050; and 3.9-6.0°C by 2100. If the temperature rises by 3°C, the permafrost of the Tibetan Plateau would suffer severe losses; 58 percent of it would disappear. In the next 50-100 years, climate change will worsen China's water shortage caused by population growth and socio-economic development, with water availability possibly decreasing by 20 to 40 percent of present availability.

China a Key Arena for Addressing Climate Change and Achieving Local Benefits: China represents a key arena for addressing climate change in terms of a) mitigation, reduction of greenhouse gas emissions; and b) adaptation, adjustment in response to climate change.

With its large population and high and growing energy consumption, China represents one of the largest extensive opportunities for pursuing dual global-local, win-win gains related to climate change and environment development. Measures taken to achieve global benefits of mitigation also offer local benefits in terms of improving the lives of large numbers of Chinese and particularly the poorest. Adaptation measures taken to reduce the impacts of climate change at the local level have other non-climate related benefits such as: reduction in local air pollution, reduction in the constraining effect of access to energy on economic development, improved livelihood opportunities, improved access to water, improved health and access to healthcare.

China a Key Arena for Mitigation Efforts: China's role as the world's top priority country for climate change mitigation efforts became clear this year as China became the world's number one emitting country, according to data from China's National Bureau of Statistics and by the International Energy Agency. Mitigation efforts in China offer more potential leverage, in terms of net greenhouse gas emission, than those undertaken anywhere else in the world. This is not only because of China's leading role in world greenhouse gas emissions, accounting for close to 25 percent of the global total, but also because the absolute annual growth of emissions in China is much greater than anywhere else in the world. Since 2001, China's greenhouse gas emissions have more than doubled. Finally, because it is still in a stage of putting into place new infrastructure on a massive scale, China represents the opportunity to phase-out old technologies installing more climate friendly technologies from the start, a more cost-effective mitigation approach than retrofitting infrastructures already in place.

China's Great Need for Vulnerability Assessment and Adaptation Efforts: while less researched and less understood than China's emissions and mitigation potential, the vulnerability of the Chinese people to climate change is a reason for grave concern. In China's First National Assessment of Global Climate Change, June 2007, the Government of China stated that it expects extreme impacts of climate change on food production and water resources, as well as extreme weather conditions. The report projected that China's production of wheat, corn, and rice could drop by up to 37 percent over the next 50 years. Worsening droughts, dust storms, and water shortages, caused by reduced rainfall, are projected in North China, while increased flooding and typhoons are projected for South China. Finally, experts believe that rising temperatures coupled with the abovementioned trends could generate major threats to public health. Overall, little work has been done on vulnerability and adaptation. In its Climate Change Strategy, the Government puts adaptation high on its agenda, raising priority for adaptation measures for grasslands, agriculture, nature reserves, glaciers and water resources and calling for strengthened monitoring of sea level change as well as scientific-based regulation of marine ecosystems to reduce possible impacts caused by sea level rising. China's Scientific and Technological Actions on Climate Change also identified assessment of impacts on the major vulnerable sectors and development of adaptation measures as priority areas.

Need for Development Assistance to Address Climate Change and Win-win Local Benefits: the Government of China has taken effective steps in the climate change arena, both on emissions and vulnerability assessment, as well as building its capacity to participate in international climate change dialogue and negotiations. The Government of China has also taken many steps in partnership with international organizations, to address key domestic environment and development issues, with measurable benefits at the local level. In particular, the Government of China has made strong efforts in

the fields of renewable energy and energy efficiency, which have provided sound benefits for mitigation, and have achieved hard won gains in addressing livelihood and health issues. Yet, scoping for this project has revealed that current efforts without additional interventions and international partnership are far below the levels needed to address both climate change overall, and the more specific challenges in the realms of mitigation, and vulnerability and adaptation.

Unique Potential of UN Cross-Agency Program: the range and variety of top-priority needs is wide, therefore a UN multi-agency partnership with China appears to present a unique and unparalleled opportunity to address climate change and environment in a broad form. Individual organizations, given their mandates, lack the capacity to take a comprehensive and cross sector view and approach of the rubric of climate change issues. Further, the UN multi-agency partnership has the additional benefit of leveraging the skills of more than one agency in a particular area and strengthening the synergies. Finally, the multi-UN agency, cross-sector program will serve to aid the integration of the different Chinese sectors.

3.1 SPECIFIC NEEDS

Scoping for this joint proposal identified several key areas. These are: 1) areas of high priority in regard to climate change, 2) areas which offer potential "win-win" development and environment benefits and 3) areas with a high potential for leveraging UN, Government and private sector resources and expertise.

The key need areas identified are listed below:

Overall climate change policy: the key needs are: a) Support for post-Kyoto/Post 2012 analysis with emphasis on technology transfer mechanisms, b) The need for international institutions to support national climate change policy formulation, implementation, and research and c) Corporate policies and actions with the private sector in China to deploy new low-emission options and green financing opportunities.

Mitigation: key areas that have both environment and development co-benefits and are highly actionable by the UN agencies partnership are: a) Energy policies to reduce fossil fuel consumption; b) Clean coal technology, c) Rural renewable energy technology focusing on the high potential areas as biomass pellets, rural renewable off-grid power, and household and larger rural biogas digesters; d) Rural energy efficiency improvement and energy efficiency in brick production through waste heat recovering and replacement of clay bricks with coal gangue bricks, e) Reduction of fossil fuel consumption through adoption of conservation agriculture management and CDM applications, and f) Identification and development of measures to mitigate climate change through energy efficiency within agricultural practices.

Vulnerability Assessment and Adaptation planning: key areas that have linked environmental and development benefits, and are highly actionable by UN agencies, are identified both on a sector-basis and on a geographic basis, i.e. focusing on geographic areas highly vulnerable to climate change. They are: a) Poverty reduction in West China and coastal Southeast China, incorporating vulnerability and adaptation options, b) Agricultural development in the Yellow River Basin, incorporating vulnerability assessment and adaptation measures that also reduce pollution from agricultural practices, c) Water management in Yellow River Basin, including water sector analysis, improved groundwater monitoring in high risk areas, defining timely remedial measures, vulnerability assessment and development of adaptation options, d) Health, strategy for adapting China's health planning and practice to climate change, and e) employment, assessing vulnerabilities and providing adaptation strategies.

3.2 SPECIFIC AREAS

3.2.1 POLICY

Climate change policy: In June 2007, the Government of China issued its first National Climate Strategy, which states that China will integrate policies for mitigation and adaptation into its national and social development programs as well as participate extensively in related international cooperation. Yet,

the concrete steps for mainstreaming climate issues into these programs and implementing the Strategy have not yet been formulated. China needs to improve basic knowledge and research capacity to support concrete policy formulation, as would be embodied in an institute developed especially for this purpose. Further, given mitigation and vulnerability potential, a relevant area is mainstreaming climate change issues into a national program in rural development and China's New Socialist Rural Countryside Program. Policy support focusing on the links between climate change, MDGs, and rural areas would embody the underlying win-win rationale of the partnership described in this proposal. To date, the UN has supported China in developing Clean Development Mechanism (CDM) related laws and policies, including its first-ever Kyoto-registered CDM project. China has accounted for 60 percent of the world's Kyoto eligible carbon credits during the last several years and is likely to continue to play a major role once again in the post-Kyoto regime. Thus, continued support for its involvement has clear global significance.

Energy Policy: China clearly recognizes the importance of energy related problems, such as environmental pollution and energy supply. While the country has a Renewable Energy Law and a law addressing energy conservation, there is no Basic Law on energy that reflects the nation's overall energy strategy and policy orientation. Yet, such a law could be a key vehicle for articulating mitigation related energy policy. Indeed, on January 24 2006, the State Council, announced the establishment of an inter-ministerial task force to draft an Energy Law. The drafting process is meant to set the framework for energy issues in China, with important links to the climate agenda. International input would be extremely useful and the Government of China has designated the UN as the principal international partner in this work.

The programme also promotes the revision of present policy and regulations to facilitate grid access of electric power generated through waste heat recovering in brick making factories and develop marketable financial mechanisms to promote energy co-generation.

Business partnerships: In addition, the past year has witnessed a major surge of participation by the private sector around the world on the issue of climate change. China, with both its global importance to climate change and its role as the number one destination of direct foreign investment, could potentially be a key destination for green investment with mitigation benefits. The UN in China has been a strong supporter of public-private partnerships in China over the past decade and could leverage this experience in promoting low greenhouse gas emitting investments and corporate social responsibility applied to mitigation.

3.2.2 MITIGATION

While China has made strong mitigation-related achievements, particularly in the fields of energy efficiency and renewable energy, both national level policy support and on-the-ground implementation support are needed to speed up the tapping of China's vast mitigation potential. The current situation and potential of key identified need areas related to mitigation are summarized below:

Employment: As efforts to reduce greenhouse gas emissions and protect the environment increase, job losses in sectors related to fossil-fuel intensive technologies, such as coal mining also increase. As employment opportunities in such areas are reduced, "green employment" has to be developed to counterbalance the losses. Indeed, many mitigation options for climate change represent 'green jobs' where new employment opportunities substantially reduce energy consumption and emissions. Such investments would clearly have the benefit of leading to employment generation; and some have argued that employment generation per unit investment would be higher than in fossil-fuel intensive industries. Yet, the impacts of mitigation-related, "green" investments on employment are not clearly understood and require to be studied. Direct action would then be needed to demonstrate best practices in green employment. Improved energy efficiency in existing buildings, in industry, renewable energy generation, recycling and waste management, or in public transport are cases in point.

Rural renewable energy: there is vast potential in China's countryside for mitigation both through replacement of fossil fuels and avoidance of future growth in fossil fuel use. The introduction of

renewable energy to rural areas also promotes win-win development and environment solutions, as, for example, access to electricity is brought to off-grid communities, and indoor air pollution is reduced by use of cleaner fuels. Three high potential technologies for replacement of current or avoidance of future fossil fuels in rural areas are biomass pellets, rural renewable power, and household biogas digesters. Biomass pellets are a promising and potentially income generating replacement for rural coal use. Pellets could also provide very positive health impacts in areas where coal with toxic impurities has led to serious illnesses in local populations. The GOC has targeted biomass pellet production at 50 million tons per year by 2020. Yet, current dissemination is insignificant. Strong support in piloting biomass pellets is clearly needed. In terms of off-grid rural renewable power, the GOC has already implemented extensive programs in western China bringing electricity for the first time to many inhabitants. Yet, these power stations face problems of sustainability due to lack of capacity of operators and lack of good business models. Also, due to lack of models for productive applications of the new power available, the potential livelihood benefits of the new power are not realized. Finally, while China has achieved widespread adoption of rural biogas digesters, these are concentrated in the eastern regions and limited mostly to the household scale. Recent renewed interest in the sector due to high-energy prices and environmental/waste treatment considerations has created an opportunity to re-stimulate growth in the sector, potentially through CDM applications.

Energy efficiency: Clean coal technology: in terms of energy technologies for mitigation, coal, accounting for 65 to 70 percent of primary energy consumption in China, is clearly a sector demanding close attention. As coal will continue to be the main source of energy in China for the foreseeable future, new technology transfer mechanisms need to be established to bring access to clean coal technologies, which have high efficiency and lower emissions,. Nowhere is this need greater than in Shanxi Province, which supplies 80 percent of China's coal. Local officials from Shanxi have stated that the development of clean coal technologies is crucial to the province.

Brick making and energy efficiency opportunities in China's countryside are substantial; and two areas, brick making and fossil fuel consumption in conventional agriculture have been identified as having particularly strong potential in terms of climate change. Due to the fast growth of the construction sector, the building materials industry is booming. There are around 23 million TVEs (Town and Villages Enterprises) in China, accounting for around 30 percent of GDP and providing around 143 million primarily unskilled rural jobs. TVEs provide more than half of the total output of building materials, mainly cement and brick, which account for about one-sixth of China's CO_2 emissions. With a consumption of 60 million tons of coal equivalent per year, the energy consumption of the rural clay brick sector ranks second in the building materials industry, after cement. Traditional solid clay bricks require large amounts of soil to be excavated and therefore, in addition to wasting large amounts of energy, deplete the arable land resources. Coal gangue, waste left over from coal mining is one of the most abundant industrial solid wastes in China. It currently presents a number of problems including spontaneous combustion, leading to emission of massive amounts of CO_2 and pollutants, water pollution. Waste heat recovering in coal gangue brick manufacturing, would result in improving energy efficiency and thus mitigate climate change gas emissions, CO_2 and SO_2, as well as contributing to other environmental issues such as coal waste management and land use.

Land degradation and unsound agricultural practices are serious environmental concerns in China. Land degradation is closely associated with rural poverty. Experience shows that CDM can be applied in conservation agriculture to contribute to land improvement, reducing fossil fuel consumption and greenhouse gas emissions, improving sustainable natural resource management, and enhancing the resilience of natural resources. Past studies estimate the global stock of soil organic carbon mass in the upper 1-meter layer to be 1,220,000 million tons. The historic loss of soil carbon is estimated somewhere between 50-100,000 million tons. If only 75% of this loss could be captured, it would be about 40-70,000 million tons or 3,000 million tons per year, which would be equivalent to 12 to 25 years of atmospheric increase in carbon. Furthermore, some part of the lost carbon from agricultural soils can be recaptured through improvements in land management, which can also serve as a compensating mechanism for reducing greenhouse gas concentrations in the atmosphere. The global carbon sequestration potential of conservation tillage is estimated by assuming that 25% of the total agricultural land in developing countries, 75% in the US and 50% in other developed countries could be brought under conservation tillage practices by 2020.This indicates the important role of the agricultural sector for carbon reduction if

implemented under the CDM and could be considered as a significant part of the wider climate change mitigation strategy. China is experiencing an important transition from experiment to extension of conservation agriculture after 15 years of research and experiment. However, lack of knowledge sharing, lack of equipment, lack of institutional support, and a basic cultural change still remain a major problem for the extension of this generic technology. Despite its significant role in a wider global climate change mitigation strategy, the agricultural sector has largely been neglected due to various complexities involved. There is an urgent need for agricultural policy-makers, advisors, and farmers/technicians to be aware and further informed of the agronomic, economic and environmental benefits of conservation agriculture practice.

Agriculture: Agriculture is one of major anthropogenic sources of greenhouse gasses emissions in China particularly through CH_4 and N_2O emissions as well as stimulating loss of forest and wetland carbon stores. However, until now mitigation programmes have not paid enough attention to reducing emissions from the agricultural sector. China's National Climate Change Program highlights a number of areas in agriculture to address mitigation, including: energy conservation, pasture protection, restoration of fragile land, ecological agriculture, including efficient use of fertilizers, breeding of varieties for reduced emissions, and promotion of return of straw to croplands. There is a need to develop strategies, strengthen capacity, and to promote experiences from pilot programmes. Mitigation activities can also be combined with adaptation measures such as promoting resource management as: a) coal gangue use as alternative raw material to clay for bricks making and b) recovering agriculture land used for coal gangue disposal.

3.2.3 VULNERABILITY ASSESSMENT AND ADAPTATION PLANNING

China's efforts to date in vulnerability assessment and adaptation have been much less than those in mitigation. Yet, the government has begun to emphasize the importance of these areas as evidenced in the National Climate Strategy. Support is needed to launch the multi-sector and multi-regional work needed. The current situation and potential of key identified need areas related to vulnerability and adaptation are summarized below:

Livelihood improvements and poverty reduction: Climate change poses serious risks to livelihood improvements and poverty reduction, particularly in regions with fragile ecosystems and in areas otherwise at high risk to the impacts of climate change. While all of China is expected to feel the impact of climate change, some areas are highly vulnerable. In Western China, issues of glacial melting in the Himalayas and shifting patterns of land and water use for large upstream and downstream populations pose risks. On the southeast coast, rising sea levels threaten livelihood conditions. There is a need to carry out vulnerability assessments and then integrate adaptation measures into future programmes. There is also a need to assess and address the impacts of climate change on rural women, as an important and often under-emphasized segment of the rural population.

Agricultural development: The adaptation of the agricultural sector to climate change is fundamental to ensure food security. The National Climate Change Strategy has also identified as important to rationally adjust agricultural production distribution and structure, improve agricultural production conditions, control the prevalence of plant diseases and pests/insects and spread of weeds, reduce production cost, prevent the potential desertification expansion, and ensure sustainable development of China's agricultural production. The need for adaptation strategies is particularly important for the Yellow River Basin and other ecosystems under stress. The Yellow River Basin is already known for being drought prone, with the lower reaches of the Yellow River running dry on an annual basis. China has carried out some preliminary assessment of the vulnerability of the nation's agricultural sector to climate change, taking into account the impact of higher temperatures and changes in precipitation. Some studies have projected high reductions in yield, but more work is needed to assess vulnerabilities and the action needed to adapt to climate change and maintain food supply. Ideas are needed on strategies to adapt to climate change and on concrete actions to be taken in different ecosystems, as well as mechanisms to design and implement these strategies. Particular attention should be paid to mainstream adaptation strategies as part of the local development agenda while addressing other pressing concerns (e.g. agricultural pollution, other types of land degradation, biodiversity losses, inefficient water use, etc.). In the case of the Yellow River Basin, the problems caused by improper management practices should be considered together with adaptation strategies, in order to propose and implement win-win or at least no-regret strategies.

Water Resources Management: Climate and the water cycle are closely linked; a change in climate induces a change in the water system, which in turn induces a change in climate, and so on. Changes in climatic variables, such as temperature and precipitation, have significant impacts on water resources and hence on societies and ecosystems. In this context water sector analysis and the relationship between climatic changes and hydrological systems will provide useful information to prevent water related disasters due to climate change. It will not only assess the physical changes in hydrology and risk, but also look into social and economic vulnerability. So far, the implication of energy and mitigation policies in relation to water quality and adaptation strategies has not been assessed yet. The Water Sector Analysis will provide information and tools to mitigate water disasters in relation with climate change. Altogether, in the last decade 90 percent of worldwide natural disasters have been water-related. Especially, due to the increasing reliance on groundwater in semi-arid and arid areas and expected increased groundwater depletion and quality deterioration, it is crucial to assess the actual changes in groundwater levels and quality and the impacts on livelihood vulnerability. This will allow for the defining of appropriate remedial measures, such as adjusting policies, imposing restrictions and, where possible, implementing measures for recharging groundwater. Efforts have to be stepped up to raise public awareness all the way down to the residence-level to ensure collective, sustainable measures are applied to reduce the worst effects of climate change on groundwater availability.

Health: it is estimated that climate change will have a great impact on human health, mostly in countries like China with poor environmental health systems in rural areas. Climate change may lead to changes in the distribution of disease vectors and resulting increases in vector-borne diseases, such as diarrhoea, cardio and respiratory diseases, and malnutrition. In the health sector, a key planning document is the National Environment and Health Action Plan (NEHAP, adopted November 2007), which focuses on the relationship between environmental factors and human health impacts in China in order to recognize, evaluate, and better manage various environmental factors related to human health and ultimately promote people's health. The NEHAP refers specifically to mainstreaming climate change considerations into control policies for all major health sensitive climate outcomes (such as water stress/desertification, flooding, dust storms, smog, etc.) and enhancing capacities to adapt to climate change. China has not yet conducted a national assessment of the potential impact of climate change on human health. There is a need to support China and the international community to better understand human health vulnerabilities and study adaptation and mitigation strategies.

Employment: Climate change's impact on employment and livelihoods in China is so far an unexplored area but it is likely to be substantial. Major changes in crop distribution and yield due to Climate Change would greatly affect people lives in rural areas and consequently force migration into urban and industrial areas. There is a need to assess the potential impacts of climate change on employment and work with the GOC and commercial sector to formulate policy and innovative actions in response. The focus of work on employment issues will be designed to complement and support the other programme activities.

4. STRATEGIES AND THE PROPOSED JOINT PROGRAMME

The joint programme strategy is to a) Support national level policies needed to achieve climate change goals in China and b) Promote dissemination of innovative pilot partnerships and technologies at the local level.
The programme has been designed based on the following key strategies:

- → Build on the UN's experience supporting China on high-level policy issues as well as achieving replication of its pilots on the ground,
- → Draw on wide range of very rich experience from past and ongoing UN Supported projects,
- → Build on potential synergies among agencies in the UN family
- → Build on previous and ongoing Government efforts,
- → Involve and build links and capacity among multiple partners across sectors,
- → Complement the support of other bilateral and multilateral agencies, and
- → Focus on rural areas to maximize environmental and social co-benefits

4.1 CONTEXT: National Priorities, International Commitments, and Local Context

The joint program will directly support China's climate change priorities domestically as well as China's participation in the international climate dialogue and mitigation efforts.

The current policy, economic, and social environment suggest optimal timing for leveraging support for such a comprehensive climate change program. The government, having very recently launched its first-ever climate change strategy, is very receptive to support for moving its climate change program forward. At the same time, as efforts have just begun and the future direction is not clear, the government is in great need of such support. The text in the sections below outlines more specifically the key government policies and plans, as well as local development goals and MDGs that will be promoted by the joint programme:

4.1.1 POLICY:

China recognizes that increasing greenhouse gas emissions will not only impact global development, but also the sustainability of China's own hard-won development gains. A sign of the urgency that China is now giving to the issue of climate change was the launch on June 4, 2007 of China's first-ever National Climate Change Strategy, outlining concrete actions to reduce the carbon intensity of China's future growth. In the Strategy, the Government also puts adaptation to climate change high on its agenda. The policy support to be provided by the joint programme can play a critical role in ensuring that the current policy direction is maintained and has the strength to achieve targeted outcomes.

Internationally, with emissions on par with the U.S., China is clearly a key player in the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol. China's continued engagement in global discussions is critical. The Post-Kyoto/Post 2012 policy response is an area in which China has requested help. The joint programme's support of such work can thus be a very positive vehicle for China's positive involvement in negotiations and implementation responses, such as the Clean Development Mechanism (CDM).

The past year has also witnessed a major surge of participation by the private sector around the world on the issue of climate change. The World Economic Forum in Davos in early 2007 saw corporate leaders place climate change at the top of their agenda, next only to economic growth. Climate change has brought major opportunities for engaging the private sector to channel new levels of much needed green investments into countries like China. In addition, large scope exists to facilitate the sharing of best practices on corporate responsibility between multinational and local companies on ways to integrate climate change issues into corporate policy and practice.

Through the Global Climate Change Centre established by the programme, global best practices and lessons learned will be facilitated. The issue of climate change is of profound importance to the development of China itself and indeed to the future of humanity. To support the partnerships and knowledge advisory support to this critical agenda, a new Global Climate Change Institute will be established, bringing together Chinese and international scholars, researchers and practitioners to generate and consolidate knowledge through research. It will draw widely on networks of partnership and collaboration so as to contribute knowledge, skills, and insights into national policies for China's development and also into global efforts to address the critical issues of climate change and energy efficiency. The work of the Institute will be a significant contribution by China to the urgent efforts of the world community to face the challenges of climate change.

Clearing House for Global Best Practices and Lessons Learned: the Institute will act as a catalyst, a Clearing House for information, and a focal point in support of several functions. Firstly, to support China's active participation in international cooperation through expert inputs to strengthen China's participation in various climate change forums, exchange and systematise knowledge and information on climate change, promote international processes and mechanisms for the transfer of technology and support the efforts of developing countries to address climate change issues. Second, it will support measures to assess and monitor the main parameters of climate change in China through strengthening

data bases, monitoring systems and processing capabilities, building up analytical, modelling, forecasting and systems analysis capacities and supporting efforts to improve the drawing up of green house gas inventories. Third, it would strengthen and systematise applied policy research and technical development in key areas related to climate change and energy efficiency through building up a coherent network of Chinese research and technical institutions targeted to specific issues of climate change and energy efficiency, and encourage the development of environmental industries in China to produce environmental goods and services on the scale required. Fourth it will promote the diffusion and effective use of knowledge, innovation, and best practice throughout the economy and the academic and policy communities of China and in other developing countries. Finally it will mobilise scientific support for the development of national policies and for the enhancement of policies at the provincial and local levels to address key issues of climate change, and disseminate training materials to build talent and expertise.

4.1.2 MITIGATION

As reflected in its policy and planning regimes, China clearly recognizes the need to improve energy efficiency and reduce growth in emissions from energy consumption. These priorities come largely from factors outside the climate change realm, e.g. energy supply, local air quality, energy bottlenecks, need to supply energy to remote off-grid communities, etc., though the win-win benefits for climate change and these other priorities are now clearly recognized. China aims to prepare a new basic Energy Law and the programme will support the formulation of this law.

In the area of renewable energy, China officially launched its Renewable Energy Law in 2006. The law itself is broader in scope, emphasizing areas such as rural renewable energy and other off-grid or non-electricity applications, and programme and investment for promoting rural household biogas digesters. Substantial growth is called for by some of these targets and the joint programme focuses on promoting highly cost effective technology to achieve these targets.

The current Five Year Plan, 2006–2010, set a target of energy intensity reduction (energy per unit GDP) of 20%. In 2006 the target of a 4% was not met. However, the Government of China is strongly committed to meet the targets and is increasing the pressure, at the central as well at the local-level, to employ measures to achieve these goals. This joint programme proposal targets high potential areas of energy conservation including clean coal technology, renewable energy, and energy efficiency in brick production.

Agriculture and forestry are other potential areas where mitigation measures can be implemented according to China's new National Climate Change Program. Aside from climate change concerns, agriculture, and forestry are also ongoing development priorities for China. China's 11th Five-Year Plan (2006-2010) highlights the importance of sustainable agriculture and the need to use technology to increase productivity, while promoting: a resource-saving and environmentally friendly society, the increase of farmers' incomes, environmental protection and "ecological construction", among others. Working in four provinces of the Yellow River Basin, the joint programme's agricultural component will promote the use of environmentally sound agricultural practices that, through an integrated approach address not only climate change issues, but also many of these national development priorities.

4.1.3 VULNERABILITY ASSESSMENT AND ADAPTATION PLANNING

China's policies related to vulnerability and adaptation are new and mainly encompassed in the new National Climate Change Strategy. Yet, many types of vulnerability assessment and adaptation measures have tie-ins with other national development policies and priorities. Relevant legislation includes the Agriculture Law, the Water Law, the Meteorology Law, and the Sand Control and Prevention Law. Agriculture priorities highlighted in the current five-year plan have been outlined above and are clearly relevant to adaptation as well. The National Climate Change Strategy has also identified the following areas as important factors to address: to rationally adjust agricultural production distribution and structure, improve agricultural production conditions, control the prevalence of plant diseases and pests/insects and spread of weeds, reduce production cost, prevent the potential desertification expansion, and ensure sustainable development of China's agricultural production. Vulnerability assessments and

adaptation measures also clearly have tie-ins with MDGs, particularly eradication of poverty, combating diseases and ensuring environmental sustainability.
In the health sector, a key planning document is the National Environment and Health Action Plan (NEHAP, adopted November 2007), which focuses on the relationship between environmental factors and human health impacts in China in order to recognize, evaluate, and better manage various environmental factors related to human health and ultimately promote people's health. The NEHAP refers specifically to mainstreaming climate change considerations into control policies for all major climate sensitive health outcomes (such as water stress/desertification, flooding, dust storms, smog, etc.) and enhancing capacities to adapt to climate change. Implementation of NEHAP rests heavily on the development of capacities in health risk assessment, management, and communication, areas the joint programme aims to address in the climate change vulnerable areas of Western China.

Water: In terms of water management, China's new Water Law, its 11th Five-Year Plan (2006-2010) for Water Resources and the UN World Water Assessment Programme (UNWWAP) are relevant. The Water Law highlights the comprehensive management of water resources. The Five-Year Plan aims to provide safe water to 160 million people who currently do not have access by 2010. While the overall water assessment in the selected river basin will be undertaken, a separate focus will be given to the monitoring and analysis of groundwater in high alert areas, namely the arid and semi-arid areas of Northern China, the areas already affected by serious groundwater depletion and deterioration, North Central China and high salinity risk areas on the coast and in several extensive areas in the interior. Ensuring continued safe water supply through water resource management and boosting the attention to groundwater in vulnerable areas are key areas addressed in the vulnerability/adaptation segment of the joint programme. Internationally, affiliation of the program with UNWWAP benefits China in terms of building self-assessment capability.

4.2 COMPLETED AND ONGOING PROJECTS

As a central part of its strategy, the joint programme builds on the results of past work in the climate change field undertaken by the Government of China and its international partners. Programme design has taken such past work carefully into consideration. With regard to on-going initiatives, the programme aims at strengthening synergies and avoiding overlap.

4.2.1 POLICY

In the field of overall climate change policy, mainly in the areas of engagement in the international climate change dialogue and international mitigation mechanisms, a number of projects have been implemented. Some of these touch on areas that are not addressed by the current programme, while others can be taken as a basis for the further work proposed for the programme.

UNDP-GEF supported China in preparing its First National Communications to the United Nations Framework Convention on Climate Change (UNFCCC) UNDP-GEF also supported China in conducting targeted research for improving its ability to measure its greenhouse gas emissions from various sectors.

UNDP-GEF is now in the process of supporting China in preparing its Second National Communications. The work of these three projects has focused on establishing a baseline for China's greenhouse gas emissions, improving greenhouse gas measurement techniques, and following up in later years with such measurements. The joint programme, while making reference to the results of these past and on-going projects, is not overlapping these areas but rather complementing them.

In addition, the UN Foundation and some bilateral organizations have supported China in building its capacity in the area of CDM. This work is considered complementary and in some ways it forms a basis for supporting a post-Kyoto analysis and technical transfer mechanisms that the joint programme will provide.

Finally, in the areas of energy policy support, the recent UNDP-GEF project in renewable energy (Capacity Building for the Rapid Commercialization of Renewable Energy) and the on-going UNDP-GEF project in energy efficiency (End-Use Energy Efficiency Programme, EUEEP) both have provided

or are providing policy support. As mentioned, the renewable energy project played a key role in support for the drafting of China's renewable energy law and EUEEP will provide similar support for revisions and implementing regulations for China's existing Energy Conservation Law. The proposed joint programme's energy policy support is complementary, but not overlapping with these efforts, as the programme will support the drafting of a new basic energy law for China.

4.2.2 MITIGATION

International support for China in the area of climate change mitigation has been extensive and, to date, primarily focused on the energy sector.

The UNDP-GEF renewable energy project mentioned above is particularly pertinent in laying the groundwork for the initiatives contained within this programme. The project had a very strong rural renewable electrification component, supporting demonstration village power stations as well as monitoring and assessment of the government's Township Electrification Program. Building on the basis of that assessment, the ongoing needs for the Township Program will be addressed by the Joint Programme. In addition, the project conducted exploratory work in the area of productive applications of rural renewable off-grid power, which is another area to be built upon in the joint programme.

A major on-going renewable energy effort at present is the World Bank-GEF China Renewable Energy Scale-Up Project (CRESP). CRESP focuses on the grid-connected wind, grid-connected biomass power, and hydropower sectors. Thus, it does not overlap with the renewable energy areas covered in this project. On the energy efficiency side, EUEEP (mentioned above) and the World Bank GEF Energy Conservation Project, as well as a more recent project instituted by the IFC are major initiatives. Yet, none of these overlap with the priority areas in the joint programme, which mostly have a rural emphasis. The Energy Conservation Project focuses on developing Energy Management Companies (like Energy Service Companies, ESCOs, in the west).

The UNIDO/GEF "Energy Conservation and GHG Emissions Reduction in Chinese Township and Village Enterprises (TVEs) project, has introduced new technology for energy conservation and GHG emissions reduction in the coking, brick making, cement and metal casting sectors. This project not only achieved the expected outcome by cutting down energy consumption and CO_2 emissions, but also improved workers conditions and strengthened enterprises' management capability. The joint programme will focus on replication of waste heat recovering in coal gangue brick manufacturing, which was identified as the most effective sector of intervention in terms of climate change impact.

4.2.3 VULNERABILITY ASSESSMENT AND ADAPTATION PLANNING

There are fewer experiences in the areas of vulnerability and adaptation then available in the area of mitigation however; previous work led by the National Development and Reform Commission (NDRC) has laid a firm base from which the joint programme is been build.

In 2000, in cooperation with UNDP-GEF, NDRC and other government partners outlined targeted research needs in the vulnerability assessment and adaptation fields. During the 10^{th} Five-Year Plan formulation, NDRC led the Study on the Impact Threshold and Integrated Assessment of Climate Change on the Major Vulnerable Areas. International cooperation in the vulnerability and adaptation fields have included the British-supported project on the Impacts of Climate Change on Chinese Agriculture, the Canadian cooperation project Canada-China Climate Change Cooperation, the World Bank project on China's National Climate Change Programme, and the Sino-Australian Climate Change Cooperation Project. (Some of these projects were focused fully on vulnerability/adaptation, while others included this as part of their content). Recently, NDRC has organized about 40 domestic experts to systematize needs in vulnerability assessment and adaptation. Their findings, in particular, will be used as a basis for the work in this programme.

The United Nations World Water Assessment Programme (UN-WWAP) brings together 24 UN organizations, each having a stake in working towards the goal of sustainable use of water resources. UNESCO has taken the lead role in this area and the secretariat of UN-WWAP is housed in UNESCO

headquarters in Paris, France. UN-WWAP, as a long-term programme, has been given the critical mandate to periodically assess the state of freshwater resources. The end product 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 and threats. So far, WWAP has published WWDR-1 (Water for People, Water for Life) and WWDR-2 (Water a Shared Responsibility). WWDR-3 will be published in 2009 during the fifth World Water Forum in Istanbul, Turkey. The WWDR-3 will have a special focus on impact of climate change on water resources in China. Contributions from China, specifically for research output and case studies, have been requested.

UNEP, as the implementing agent of the global Millennium Ecosystem Assessment, has a good repository of in-house knowledge on the Ecosystem Services and Human Well-Being (ESHWB) approach of the MA. The UNEP MA team had supported a MA sub-global assessment in West China in 2001-2003, which focuses on the integrated ecosystem assessment of the western region of China. The research results provide a scientific basis for central and local governments to make decisions concerning improved ecosystem management and ecological restoration within the Western Development Strategy. The research capacity developed from this assessment was incorporated into the 11th Five-Year Plan.

In addition, the global Millennium Ecosystem Assessment research also includes studies on marine and coastal ecosystems, the services they provide, and how changes in these services will impact upon human well-being. The knowledge and approach of MA provides a scientific basis for this project.

The 3-year UNEP-International Centre for Integrated Mountain Development (ICIMOD) study focused on the climate risk to glaciers in the two small land-locked countries of Nepal and Bhutan. In the second phase, the work will be expanded to include Pakistan, China, and countries in central Asia.

4.3 LESSONS LEARNED

Over the years, the UN agencies involved have implemented numerous projects both in China and worldwide which are relevant to the proposed programme. Key over-arching lessons that are particularly pertinent to this project area as follows:

1. A multi-disciplinary approach, involving stakeholders from a range of institutions is the most effective way to deal with cross-sector problems, such as climate change, energy, agriculture, natural resource management, health, etc.
2. Participatory approach is the most effective approach in policy-making and on-the-ground implementation. All relevant stakeholders have to be involved.
3. Sharing international experience is one of the key value-adds offered by UN programmes,
4. Capacity development and skill building is another of the key value-adds offered by UN programmes in China. Capacity building is the key to sustaining the results of the programme and will therefore be pursued with multiple institutions across multiple sectors and components.
5. Initiatives sometimes get stuck at the national-level or fail to adapt themselves to local situations. There is a need to take national-level plans down to the local-level by developing local plans, in addition, they need to be adapted to the local situation by conferring with local stakeholders on needs.
6. For policy formation, busy decision-makers in China need and welcome distilled policy briefs based on detailed analysis of the current situation by well-respected domestic experts. Social dialogue and consultation are also important to policy formation.
7. The capacity for monitoring, analyzing, and reporting on progress towards environmental sustainability needs to be strengthened significantly. This lesson was drawn from a review of more than 60 country progress reports on achieving the MDGs.

More specific lessons learned as they apply to specific project components are as follows:

4.3.1 POLICY

Policy and International Negotiations: As mentioned above, experience has shown the policy arena is one area that the UN can best leverage its support in China. This is not only because of its role as a "neutral

player", but also because it has been able to introduce both participatory approaches to policy formulation and the distillation of key policy advice for decision-makers.

Public-Private Partnerships: Worldwide the UN's Global Compact focuses on engaging multinational and local companies on corporate responsibility for climate change and energy. This includes issues within multinationals in China and within Chinese firms operating in Africa and elsewhere, and within key sectors like finance and banking. This experience will be leveraged in expanding public-private partnerships in the "green business" and "green financing areas".

Employment: initiatives in other parts of the world have highlighted several lessons, including: a) It is important to assess employment and income aspects and design policies that will maximize benefits and deal with needs associated with transitions, b) Social dialogue is of high value in informing policies and accompanying change, c) Labour-management initiatives within enterprises can bring efficiency gains, d) Skills development is important in both mitigation and adaptation.

4.3.2 MITIGATION

Energy policies and technologies: international experience is a valued input to the policy formulation process and an important area for donors to play a role. Further, participatory approaches to the drafting process (e.g. draft laws circulated for comments among stakeholders), as encouraged by supporting institutions can lead to faster consensus and adoption of draft laws.

Rural Energy Efficiency: Co-funding, as for previous experience in other programmes is fundamental, once the technological model is technically and financially validated, the Chinese Government and enterprises quickly pick it up and replicate, multiplying exponentially the impact of the pilot programme.

Rural renewable energy: outside support is most urgently needed in non-hardware areas, such as business models for the power stations, developing productive applications of the power, and training.

4.3.3 VULNERABILITY ASSESSMENT AND ADAPTATION PLANNING

Water: 24 UN agencies have collaborated to the most comprehensive assessment, until now, of the state of the world's fresh water resources. The end products, the periodic publications of World Water Development Report (WWDR), offer a concrete picture of the state of the World's fresh water resources and most sensitive problems worldwide. The report underlines the importance and urgency of a systematic assessment and development of management tools for fresh water resources in developing counties as China.

Health: Evaluations of past National Environmental Health Plan processes revealed a) the importance of ongoing government commitment to ensuring sustainability of initiatives, b) the need to work at both national and local levels to ensure implementation, and c) the importance of engaging all key stakeholders including government, industry and civil society. Further, in Europe where there is more experience with national environmental health action plans, important lessons have been learned about the need to transfer the broad frameworks to the local-level through local environmental health plans.

Poverty reduction: a participatory and consultative approach to ensure greater ownership of outcomes is required. Further, work to build ongoing activities with partners is needed for the sustainability of results. Finally, a repository of reference materials is necessary, similar to the type of institution developed through past association between UNEP, ICIMOD, and the Lanzhou Institute of Glaciology that focused on climate risk to glaciers.

These lessons have been one of the main guidelines followed by all UN Agencies and Government counterparts during the formulation process for this joint programme. More importantly, they present a valuable basis for the further work that will be initiated by this joint implementation programme.

4.4 THE PROPOSED JOINT PROGRAM

The proposed joint program's outcomes and outputs are as follows:

Outcome 1: *Mainstreaming of climate change mitigation and adaptation into national and sub-national policies, planning, and investment frameworks*

Output 1.1: Improved policies and partnerships at national-level to mainstream climate change mitigation and adaptation into policy frameworks:

Post 2012 analysis and design of Technology Transfer Mechanisms: Assistance will be provided for analyzing key issues as China formulates its position over the future post-Kyoto/post-2012 international negotiation process on climate change and climate change regime. In particular, such assistance will also go towards developing Technology Transfer Mechanisms.

→ **Establishment of Global Climate Change Centre in Beijing:** The centre will serve as a technical l support for policy making, knowledge hub for good practices on mitigation and adaptation, and facilitate south-south cooperation to share China's experiences in Dealing with climate change with other developing countries in Asian and Africa.

→ **Convening and Generation of Policy Advice from a High-Level Climate Change Policy Task Force:** Support will be provided for convening a new high-level Climate Change, Environment and Rural Development Task Force under the China Council on International Cooperation for Environment and Development (CCICED) between UN, government, bilateral, business, and NGO partners to advise strategic policies on implementing the National Climate Change Strategy.

→ **Formulation of China's Basic Energy Law:** The UN will help draft a new Basic Energy Law for China, to become the central legal framework for energy supply and climate change issues over the coming years. The programme will also support design of new National Rural Energy Strategy, and will bring to these efforts comparative analysis, market approaches, and ways to achieve rural energy supply for addressing MDGs in poor areas.

Output 1.2: UN-business partnerships, new 'green' financing mechanisms, and 'green employment' to mainstream climate change and energy into investment frameworks and business practices:

→ **Engagement of multinational and local companies through a UN-Business Compact on Climate Change**: The compact will engage companies on corporate responsibility for climate change and energy. This engagement will include multinationals in China and Chinese firms operating in Africa and elsewhere, and within key sectors like finance and banking. With China increasingly serving as a base for the production of resource-intensive products for consumption by the West, there is a growing link between the demands of consumers in the West for climate change-friendly products from multinational firms producing goods in China. This is creating a unique opportunity to integrate such concerns into manufacturing and other operations of multinationals within China. This will also include cooperation with media and business partners on raising awareness and visibility to climate change challenges and solutions in China, including PSA, hosting of events and use of high profile celebrities. It will include focus on engaging civil society and volunteerism through this process to engage citizen awareness. The UN Conference on Trade and Development (UNCTAD) will serve as a partner to UNDP and UNIDO for business compact activities. UNCTAD will support roundtables and bring expertise in working with the private sector on issues of trade and environment, in particular**.**

→ **Demonstration of best practices of "green employment" in three selected companies**: Three workplaces (farms and/or companies) will be selected to test and demonstrate best practice models for green employment. The demonstration pilots will be implemented in cooperation with UNIDO and FAO, complimenting and supporting the work being carried out by them.

Outcome 2: *Establishment of innovative partnerships and dissemination of technologies to mitigate climate change and increase local access to sustainable energy:*

Output 2.1: Development and dissemination at the local-level of innovative models for energy efficiency:

→ **Piloting and dissemination of clean coal technology:** financing for one pilot clean coal power plant will be secured, and the pilot built. Cooperation will be with the Shanxi Provincial Government and international partnerships and support will be mobilized through the Earth Institute, which is leading the way to mobilize global resources and private partners to address the need for clean coal technology. Shanxi produces more coal than any of China's other provinces by far; and an urgent need exists in the province to bring in best practices and financing for rapid technology transfer. The results of the planned support are expected to be replicated by local partners in future years.

→ **Development and dissemination of technology for power generation through waste heat recovering from coal gangue brick manufacturing:** The project will develop a full technological package, including equipment, managerial skills, policy, and regulation for power generation through waste heat recovering from coal gangue in brick production. The technology developed will improve upon the currently inefficient and polluting technology now used in China. International and national technologies will be used to develop the package, which will be disseminated for use in rural township and village enterprises (TVEs). A training element will also be included.

→ **Enhanced CDM application in conservation agriculture**: The project will support a feasibility study to explore the potential application of CDM in the agricultural sector, in particular, conservation agriculture. Depending on results of the study, methodological guidelines for the application of a CDM facility to this area will be developed.

Output 2.2: Development and dissemination at the local-level of innovative models for renewable energy in rural areas:

→ **Development and dissemination of a new biomass pellet system**: Biomass pellet pilots, providing a replacement for coal in rural areas, will be demonstrated in a number of locations. Geographically, the project targets a mix of localities, including areas in which there are serious negative health impacts related to the use of coal (e.g. fluorine poisoning). The pilots will test both household-level biomass pellet stoves (for heating and cooking) and village-level boilers (for heating only). In the pilot areas, a key task for the project will be to develop effective models for crop waste collection.

→ **Increased capacities and dissemination of productive applications associated with off-grid rural renewable power stations**: The project will initiate activities in the productive application (i.e. income generating activities) of rural renewable power in up to five pilot provinces in which the rural off-grid renewable power stations have been installed under the government's Township Electrification Program. For each site, available power resources and markets will be evaluated and ideas generated for productive uses. Training, business models for introducing productive applications and dissemination of successful pilots will also be undertaken.

→ **Stimulation of the establishment of rural household-scale and larger biogas digesters through CDM facility**: A feasibility study for the potential application of CDM to biogas will be prepared. Based on results, methodological guidelines for the application of CDM to biogas will be prepared.

Outcome 3: *Accelerated action by China in assessing vulnerability to climate change and developing adaptation plans and mechanisms.*

Output 3.1: Capacity building on impact assessment and adaptation strategies in less developed areas of Western China and vulnerable coastal areas of Southeast China:

China is placing heavy emphasis on new investments and programming over the next years to achieve the MDGs by 2015 in the less developed areas of Western China. The programme will use the UN Millennium Ecosystem Assessment framework and economic impact assessment frameworks to analyze key climate risks including risk posed by climate change-induced glacier melting to poverty reduction and livelihoods in the Himalayas of West China to ensure that adaptation measures can be integrated into

future development investment. The project will also assess the impacts that rising seas levels will have on the Southeast coast of China which is the industrial base of China.

Based on the above mentioned studies, general capacity building activities on impact assessment and adaptation strategies targeting at western China and south-east China will be conducted

Output 3.2: Policies and capacities developed to manage environmental health issues from climate change:

The programme will help develop capacities to implement climate change aspects of a new National Environment and Health Action Plan approved in November 2007. The Plan identifies the need to establish monitoring and health risk assessments related the risks to health posed by climate change. The overall strategy will be to facilitate a transfer of knowledge and skills that will enable the strengthening of environmental health risk managing functions in China among various agencies, especially in the health sector. The component will include development of a knowledge-base of good practice in environmental health management and improvements to policy and practice related to climate change mitigation and adaptation measures that could be used widely by municipalities and local and regional authorities.

Output 3.3: Capacities enhanced and policies developed for understanding and adapting to impacts of water supply changes on China's environment and development:

The project will assess climate impacts on water security in China with regard to 11 major challenges which are grouped under three main categories: a) challenges on governance issues, b) challenges to life and well-being and c) challenges to effective management.

These components will also help develop policy recommendations and the development of key indicators on the following issues, most of which stem from human rights. The final output also includes series of indicators reflecting situation of water resources from both the supply and demand sides, and those in relation to the governance structure for water quality, and the interaction between water, human beings, and the ecosystem. This would give a comprehensive view on the situation of water resources in Yellow River Basin, which is tightly linked to climate change consequences on the Tibetan Plateau and specifically on glacier melting and precipitation. Based on the level of progress, the preliminary results of this work would be included in the third edition of the WWDR, which is scheduled in 2009 during the fifth World Water Forum in Istanbul, Turkey.

Particular focus will go to the effects of climate change on groundwater and charting timely and sustainable responses. Although a developed groundwater monitoring system is in place in large parts of China it has limited capacities in a number of areas, including in areas of high risk to climate change.

There is an urgent need to upgrade the system, especially in high-risk areas, to serve as an early warning system for climate change impacts on groundwater levels. In addition, there is a critical need to increase capacity for data analysis at the local and central-level and to define and enact appropriate response mechanisms to safeguard water supplies from affected groundwater on which large parts of China depend. The programme will thus build capacities to track and remedy the effects of climate change on groundwater.

Output 3.4: Enhanced strategies for climate-proofed[1] and environmentally sound agricultural production (C-PESAP): Agricultural development in selected agro-ecosystems of the Yellow River Basin.

The project will focus on developing strategies and actions to adapt to climate change and reduce agricultural pollution in the eastern/downstream part of the Yellow River Basin, China's breadbasket. The wide range of agro-ecosystems addressed and the need for different efficient farming systems will provide an opportunity for the collaboration of many sectors and levels, including: agriculture,

[1] In this case climate proofing is taken as a process that can lead to minimize, if not eliminate potential disasters and to mitigate, if not prevent, the unwanted consequences of extreme weather events or climate change. Climate proofing is not meant in this context as product.

environment, land planning, forestry, soil and water conservation, plant breeding, health, and the economy among others. The component will propose policies and on-farm technologies that incorporate production, socio-economic and environmental factors. The approach proposed is innovative in the sense that it will bring together the different dimensions of planning and capacity building for applying, documenting and monitoring efficient farming systems for environmentally-sound agricultural production and adaptation to climate change, as opposed to fragmented and sector interventions. Because of its capacity building dimension, it will also empower different stakeholders to contribute to reduce negative impacts of agriculture on ecosystems and to adopt practices that can contribute to adaptation to climate change. The activity will focus on adapting to both current and future challenges, including pollution control. The strategies generated will serve as examples for replication in other areas

4.5 PHASING

→ **Year 1:** the programme lays all groundwork to the extent possible during year one. This groundwork will include all feasibility studies, vulnerability assessments, though some of these may require a longer timeline, and international input for policy formulation, etc. During this year, detailed work plan will be developed and the annual programme activities conducted.
→ **Year 2:** more extensive policy formulation support and on-the-ground implementation and capacity building related to various mitigation technologies and adaptation strategies begin and final models for replication are defined and disseminated.
→ **Year 3:** all pilots and adaptation programs are operational and replication efforts begin. On the policy side, initial draft policies are completed and under consultation if not already adopted. Policy/planning efforts and implementation of national policy are spread to the local-level through the development of local plans.

Beside the planned project time schedule of three years, during the fourth year, policy support, through briefings, workshops, etc. will continue and results from on-the-ground mitigation and adaptation programs are documented and disseminated.

In order to achieve the greatest capacity building impact possible and thus ensure the sustainability of results, efforts will be made to include all partners throughout the entire programme lifespan and ahead. Because of the research/preparatory nature of year one, the greatest participation will be from experts and affiliated with research institutes and other such organizations. Involvement of government ministries will step up into full swing during year two, as actual policies and plans, supported by outputs from assessments during year one begin to be formulated. Involvement of local-level organizations will also step up in year two, as local mitigation and adaptation work will begin. Involvement of all parties will continue throughout year three. UN agencies will be strongly involved throughout all project life span and beyond, bringing international experience and methodologies to bear on the successful implementation of all components. The work-plan for the first year is included in the Annex I. Further discussion on the expertise and added value of selected key partners is given below.

4.6 PARTNERS INVOLVED IN ACHIEVING JOINT PROGRAMME OUTCOMES

An important and unique strength of the joint programme is the number and diversity of UN, Chinese Government, central and local, research, academia and other public and private Chinese institutions involved in promoting China's efforts to address climate change. The broad group of players on both the UN side and the Chinese side make it possible to leverage a broad range of UN comparative advantages. Further, involving a wide range of Chinese government and other stakeholders will promote a broadening of China's response to climate change and the potential to integrate climate change responses into a greater number of priority development areas. The table below summarizes the UN, Government, and other Chinese organizations involved in the joint program. More details on the specific role of each institution will be given later in this section.

Among the organizations involved there are the respective Ministries, Government Agencies and UN Agencies. Among them, the Ministry of Commerce (MOFCOM) will be responsible for overall coordination of the Government bodies involved in the programme as well as coordinating the UN-Government relationship. The National Development and Reform Commission, with its responsibility for

overall macroeconomic planning and energy issues as well as housing the National Climate Change Committee, will coordinate the operational management of the programme.

The Table No. 1 summarizes the UN, Government, and other Chinese organizations involved in the joint program. More details on the specific role of each will be given later in this section.

Table No. 1: Listing of Involved Organizations (In alphabetical order)

UN Organizations	Government Organizations
1. FAO	1. China Council for International Cooperation on Environment and Development, Ministry of Environmental Protection (CCICED/MEP)
2. ILO	2. China International Centre for Economic & Technical Exchanges (CICETE/ MOFCOM)
3. UNDP	3. China International Institute of Multinational Corporations (CIIMC)
4. UNEP	4. China Society for Promotion of the Guangcai Programme
5. UNESCAP/UNAPCAEM	5. Energy Bureau, NDRC
6. UNESCO	6. Ministry of Agriculture (MOA)
7. UNICEF	7. Ministry of Health (MOH)
8. UNIDO	8. Ministry of Human Resources and Social Security (MHRSS)
9. WHO	9. Ministry of Water Resources (MOWR)
	10. Office of National Leading Group on Climate Change, National Development and Reform Commission (ONLGCC/NDRC)

Other Potential Partners

1. All China Federation of Trade Unions
2. Centre for Disease Control
3. China Association of Rural Energy Industry
4. China Enterprise Confederation (CEC)
5. China Geological Survey
6. China Institute of Water Resources, Hydropower Research and Centre for Groundwater Monitoring, MOWR
7. China International Institute for Multinational Corporations and Shanghai Environmental Protection Bureau
8. China Land Surveying and Planning Institute
9. China Society for Promotion of the Guangcai Program
10. Chinese Academy of Agricultural Engineering
11. Chinese Academy of Agricultural Sciences
12. Chinese Academy of Sciences, Including: Nanjing Institute of Soil Sciences Institute of Geographical Sciences and Natural Resources Research, Institute of Remote Sensing Application, and Research Centre for Eco-environmental Science, and Cold and Arid Regions Environmental and Engineering Research Institute
13. Conservation Tillage Research Centre
14. Earth Institute

15. Groundwater Monitoring Centre, Yellow River Conservancy Commission , China Institute of Water Resources and Hydropower Research
16. Institute of Population and Labour Economics (Chinese Academy of Social Sciences)
17. Local governments in selected provinces of North and Western China
18. Local governments in selected provinces of South-eastern China
19. Ministry of Construction
20. Ministry of Science and Technology (MOST)
21. Other provincial, municipal, and county governments
22. Selected provincial, prefecture and county water resources and health departments
23. Shanxi Provincial Government
24. State Oceanic Administration
25. UN Conference on Trade and Development (UNCTAD)

The expertise and value-added of partners are outlined below. In most cases, the key partners for each component are ministerial-level organizations with responsibilities in the specific component. Such ministries bring considerable influence in policy development and years of experience at the national and local-level conducting work in their field.

4.6.1 POLICY

→ Office of National Leading Group on Climate Change, (ONLGCC) hosted by the NDRC: As the lead institution in China's Climate Change Policy and with responsibility for the nation's economic macroeconomic planning and industrial development, ONLGCC has strong experience in climate change issues, climate negotiations, and energy-related mitigation. The ONLGCC has the mandate to coordinate all climate matters in China and as such is best positioned to provide overall coordination for Government dialogues and information sharing for the programme. ONLGCC/NDRC will also play a coordination role among national counterparts.

→ National Climate Change Leading Group, (NCCLG): In June 2007, the State Council announced the formation of the NCCLG, which is the highest-level entity responsible for the development and formulation of national climate change policies and coordination.

→ CCICED: The partner for establishing a new high-level climate change task force will be the China Council for International Cooperation on Environment and Development (CCICED). The CCICED has been active in promoting strategic white papers for the Government on how to improve the environmental situation in China. The Council is chaired by the Vice Premier of China and has high-level membership, both Chinese and international, from Government, the UN, NGOs, and research institutions. In the past, it has developed influential, high-level recommendations suitable for consideration by the State Council and relevant Government Departments.

→ ONELG: In May 2005, the State Council announced the formation of the Office of the National Energy Leading Group (ONELG), which aims to provide co-ordination of energy policy development at the highest level of government. On January 24, 2006, the State Council announced the establishment of an inter-ministerial taskforce for drafting an energy law. Premier Wen Jiabao served as the Chairman of the Office of National Energy Leading Group on behalf of the State Council. The taskforce includes officials from 15 government departments or the national legislature, and is headed by the Minister of the NDRC, and the director of the newly created ONELG. A panel of experts specialized in energy; law, economics, and public management are working as taskforce advisors. The process is meant to set the framework for energy issues in China, with important links to the climate change agenda, and also to elaborate a possible new institutional arrangement in China for managing matters of energy and climate change. As a partner, ONELG and the associated task force clearly bring high value-addition in their influence and role in shaping China's energy policy and institutions.

4.6.2 MITIGATION

→ Energy Bureau, NDRC: The Energy Bureau is the premier organization responsible for renewable energy policy and planning in China. It has years of experience implementing donor projects in the sector.

→ Ministry of Agriculture: The Ministry of Agriculture has many years of experience in the household biogas sector and has implemented large programs in this area over the years. In terms of conservation agriculture, China is experiencing an important transition from experiment to extension of this technology after 15 years of research and experiment. The Ministry has recently launched an extension program in this area. The Ministry, with its close links to agricultural machinery and also township and village enterprises, is also one of the key stakeholders for waste heat recovering from coal gangue brick making.

4.6.3 VULNERABILITY ASSESSMENT AND ADAPTATION PLANNING

→ Ministry of Water Resources: The main stakeholder for water-related work is the Ministry of Water Resources. The Ministry has approached the UN to help the Government carry out a comprehensive water sector analysis and develop indicators based on experiences derived from the World Water Assessment Programme. The Ministry has extensive experience working in China's major river basins.

→ Ministry of Agriculture has embarked in vulnerability assessments at different scales and has been carrying out applied research on the potential aspects to address adaptation of the agricultural sector to climate change, including plant breeding, soil and water conservation, water use efficiency, dry land agriculture, management of problem soils, amongst others. They have also established broad scientific cooperation with the countries as well as regional and international universities and research organizations, e.g. the Sino-UK modelling studies (The effects of climate change on Chinese agriculture).

→ Ministry of Health: the focal point for health related activity is the Ministry of Health. The Ministry, together with other government agencies, including the State Environmental Protection Administration (MEP) and the China Meteorological Administration has now developed China's First National Environment and Health Action Plan, which seeks to develop strategies to address the many current and emerging environmental determinants affecting public health. The process of Plan Development has provided a powerful framework and collaborative network to facilitate the implementation of proposed activities and utilization of programme outcomes related to climate change and public health.

This joint programme includes nine UN Agencies, Central and Local Government bodies and Governmental and private institutions, each of them has a sound experience in the formulation and implementation of programmes in their respective fields, and they are active in the formulation of future initiatives and have a strong presence in the field. The above guarantee the effectiveness of the design and an adequate follow-up ahead the programme life span of three years. Knowledge acquired through this programme will find a good potential for replication on a number of future programmes.

5. RESULTS FRAMEWORK

5.1 BRIEF NARRATIVE SUMMARY OF RESULTS FRAMEWORK

The key results associated with each output are given below. More details on key UN agencies, key partners, indicative activities, and budget lines are given in Table No. 2: Summary of Results Framework.

OUTPUT 1.1 Improved policies and partnerships at national level to mainstream climate change mitigation and adaptation into policy frameworks: Results associated with this output include "Post-Kyoto" strategies and options for technology transfer, a new Global Climate Change Centre to serve as an

international hub for best practices and south-south cooperation on mitigation and adaptation, a new high-level policy task force on ways to link climate change to development and a new Basic Energy Law for China to guide issues of climate change and energy management.

OUTPUT 1.2: UN-business partnerships and new 'green' financing mechanisms to mainstream climate change and energy into investment frameworks and business practices: Results associated with this output are focused on business and employment practices and include: *a U*N-Business Compact on Climate Change between multinational and local companies in China to share best practices and explore strategic partnerships, exploration of climate change-friendly designs and products from multinationals, an assessment of mitigation and adaptation in the context of employment, and demonstration of climate change-friendly employment.

OUTPUT 2.1: Development and dissemination at the local-level of innovative models for energy efficiency: Results associated with this output cover the introduction and replication of demos as well as the application of CDM to rural energy efficiency applications. Specific results area: a) One pilot clean coal power plant and replications, b) full technology and policy package for coal gangue brick production, c) feasibility study and methodologies for the application of CDM to conservation agriculture.

OUTPUT 2.2: Development and dissemination at the local level of innovative models for renewable energy in rural areas: Results associated with this output are focused on three technology areas: a) Biomass pellets, b) off-grid renewable power stations, and c) biogas. Results include replacement of coal by biomass pellets, as well as improved household stoves and boilers; increased market for productive applications of off-grid renewable power, as well as training manuals and guidelines; and feasibility study and guidelines for application of CDM to biogas.

OUTPUT 3.1: Climate proofing of poverty reduction in less developed areas of West China and vulnerable coastal areas of Southeast China: Results associated with this output are focused on vulnerability assessment and adaptation measures for livelihood improvement in the Himalayan region of West China, a) vulnerability to glacier melting induced by climate change, and for southeast coastal areas b) vulnerable to rising sea levels.

OUTPUT 3.2: Policies and capacities developed to manage environmental health issues from climate change: Results from this output include the implementation of the key elements of the National Environment and Health Action Plan focusing on improvement of the management of environmental health risks related to climate change.

OUTPUT 3.3: Capacities enhanced and policies developed for understanding and adapting to impacts of water management changes on China's environment and development: Results include assessment of, development of adaptation measures for, and increased capacity for monitoring the impact of climate change on water resources and to define and enact remedial action.

OUTPUT 3.4: Enhanced strategies for climate-proofed and environmentally sound agricultural production: Agricultural development in selected agro-ecosystems of the Yellow River Basin: Results for this output cover vulnerability assessment and adaptation to climate change integrated with agricultural development. In particular, results include information mechanisms and an analysis reporting, capacity of local authorities to implement multi-disciplinary and participatory approaches, identification of environmentally sound sustainable agriculture practices, and integrated response action plans in selected provinces along the Yellow River.

Table No. 2: Results Framework.

UNDAF Outcome No. 3: More efficient management of natural resources and development of environmentally friendly behaviour in order to ensure environmental sustainability								
JP Outcome 1: Mainstreaming climate change mitigation and adaptation into national and sub-national policies, planning and investment frameworks								
JP Outputs	SMART Outputs and Responsible UN Organizations	Reference to Agency Priority or Country Programme	Implementing Partner	Key indicative activities	Resource allocation and indicative time frame			
					Y1	Y2	Y3	Total
1.1 Improved policies and partnerships at national level to mainstream climate change mitigation and adaptation into policy frameworks	·Capacity developed for the post-Kyoto negotiations ·Mechanisms and financial systems developed for technology transfer	UNDP UNDP CPD (2006-2010) Output 6 – End-use energy efficiency and application of new and renewable energy technologies improved, see activities No. 111, 112, 113, 114, 121, 211 and 221	ONLGCC/ NDRC	1.1.1. Support to Post 2012 Frameworks	104,000	200,000	130,000	434,000
	·A technical support unit for policy making, knowledge hub for good practices on mitigation and adaptation ·Promoted south-south cooperation		ONLGCC/ NDRC	1.1.2. Support to establish a new Global Climate Change Centre	180,000	220,000	113,000	513,000
	·A new high-level Policy Task Force on Climate Change, Environment and Sustainable Development established to advise guide strategic policies, monitor progress on implementing the National Climate Change Strategy		CCICED /MEP	1.1.3. Support to establish a new High-Level Climate Change Task Force	107,000	271,000	0	378,000
	·Basic Energy Law draft ·Series of energy strategies		ONELG /NDRC	1.1.4. Support to design China's new Basic Energy Law and series of Energy Strategies	382,500	208,500	0	591,000

1.2 UN-business partnerships and new 'green' financing mechanisms to mainstream climate change and energy into investment frameworks and business practices	- Series of communication, visibility and awareness raising activities and events including use of celebrities and staff/citizen volunteerism	UNDP UNDP CPD (2006-2010) Output 6 – End-use energy efficiency and application of new and renewable energy technologies improved, see activities No. 111, 112, 113, 114, 121, 211 and 221	CICETE/ Guangcai	1.2.1 Engage multinational and local companies to increase awareness on climate change issues in China	29,355	60,000	0	89,355
	·A UN-Business Compact on Climate Change. ·Climate change-friendly designs and products from multinational firms	UNIDO Reference to Country Programme, § 3.1.2: Pipeline Energy and Climate Activities 2008-2010	CICETE/ Guangcai /CIIMC	1.2.2 Engage multinational and local companies through a UN-Business Compact on Climate Change	90,645	143,000	0	233,645
	·Demonstration of best practices of "green employment"	ILO - China Decent Work Country Programme (2006-2010) Priority 1: promoting employment, employability and reducing inequalities - Country Programme (2008-2009) Outcome CHN101: Implementation of national employment policies strengthened through improving knowledge and services for employability, employment and enterprise development	MHRSS	1.2.3 Demonstrate best practices of "green employment" in three selected companies with UNIDO and FAO	12,000	45,000	20,000	77,000
JP Outcome 2: Establishment of innovative partnerships and dissemination of technologies to mitigate climate change and increase local access to sustainable energy								
2.1 Development and dissemination at the local level of innovative models for energy	·Partnership and financing for one pilot clean coal power plant ·Replication of results from demonstration	UNDP UNDP CPD (2006-2010) Output 6 – End-use energy efficiency and application of new and renewable energy technologies improved, see activities No. 111, 112, 113,	CICETE	2.1.1 Pilot and disseminate clean coal technology	138,000	157,000	0	295,000

efficiency		114, 121, 211 and 221						
	·A full technological and policy package for comprehensive utilization of waste heat recovering from coal gangue brick production ·Improved energy efficiency and reducing air pollution ·Trainings	UNIDO Reference to Country Programme, § 3.1.2: Pipeline Energy and Climate Activities 2008-2010	MOA	2.1.2 Develop and disseminate technology and policy for production of bricks from coal gangue	160,000	990,000	5,250,000 Co-financing 5,000,000	6,400,000
	·Feasibility studies of the CDM potential to in agricultural sector ·Methodological guidelines for the application of CDM	UNAPCAEM UNDAF Country Programme China 2008-2010, Section 3.4.2.	MOA	2.1.3 Promote policies, technologies, and practices for biogas and conservation agriculture, with an aim at CDM facility	140,000	60,000	0	200,000
2.2 Development and dissemination at the local level of innovative models for renewable energy in rural areas	·Biomass pellet replacing coal ·Improved household stoves and boiler ·Rural biomass waste management guidance ·Increased market for productive applications of off-grid rural renewable power ·Training manuals and guidelines for rural renewable power	UNDP UNDP CPD (2006-2010) Output 6 – End-use energy efficiency and application of new and renewable energy technologies improved, see activities No. 111, 112, 113, 114, 121, 211 and 221	Energy Bureau of NDRC	2.2.1 Develop and disseminate a new biomass pellet system, and increase capacities and disseminate productive applications associated with off-grid rural renewable power stations	175,000	196,000	0	371,000
Outcome 3: Accelerated action by China in assessing vulnerability to climate change and developing adaptation plans and mechanisms								
3.1 Capacity building on assessing climate change impacts on livelihoods, poverty and employment and on	·Key climate risks to poverty reduction and livelihoods in the Himalayan Region of West China identified	UNEP UNEP Sub-regional Strategy for Northeast Asia (2007-2010), Section 4.0	ONLGCC/NDRC	3.1.1 Analyze key climate risks to poverty reduction and livelihoods in selected areas in the Himalayan Region	120,000	210,000	268,000	598,000
	·Impacts of rising seas levels on the Southeast coast of China assessed	UNEP Climate Change Strategy (2010-2013), Section 4.2	ONLGCC/NDRC	3.1.2 Assess the impacts of rising seas levels on the Southeast coast of China	120,000	209,000	268,000	597,000

adaptation strategies in less developed areas of West China and vulnerable coastal areas of Southeast China	·Assessment of mitigation and adaptation in context of employment	ILO - China Decent Work Country Programme (2006-2010) Priority 1: promoting employment, employability and reducing inequalities - Country Programme (2008-2009) Outcome CHN101: Implementation of national employment policies strengthened through improving knowledge and services for employability, employment and enterprise development	MHRSS	3.1.3 Map the employment and income impacts of climate change in China, including the detection of potential for green jobs and the need for managed transitions in the labour market	50,000	48,000	25,000	123,000
3.2 Policies and capacities developed to manage environmental health issues from climate change	·Enhanced institutional capacity for management of climate change risks to health at national and provincial levels	WHO - National Environment and Health Action Plan 2007 - 2015 - Country Cooperation Strategy 2008 - 2013	MOH	3.2.1 Benchmark Environmental Health best practice and support leadership development for climate change policy and practice	216,500	17,000	91,500	325,000
	·Local action plans to protect human health from climate change risks developed and nested in the framework of the NEHAP and based on the actual local conditions		MOH	3.2.2. Develop effective local action plans to protect human health from climate change risks considered by local authorities and in the framework of the NEHAP	0	188,000	29,500	217,500
	·Capacity for climate risk assessment strengthened, and policy recommendations raised for consideration by local authorities		MOH	3.2.3. Strengthen capacity to assess and respond to key climate risks, and identify the health aspects of climate change mitigation policies	238,500	212,500	127,500	578,500
	·Monitoring capacity enhanced, and pilot monitoring systems established and made functional		MOH	3.2.4. Enhance capacity for monitoring, analysis and reporting progress on impact of climate to health	0	74,250	199,750	274,000
3.3 Capacities enhanced and policies	·Assessment of climate impacts on water security in Yellow River Basin China	UNESCO UNESCO-International	MOWR	3.3.1 Undertake comprehensive assessment of climate risks to water	246,500	369,000	319,000	934,500

developed for understanding and adapting to impacts of water supply changes on China's environment and development	charting the course of preventive actions	Hydrological Programme Phase VII (2008-2013), see Water Dependencies: adapting to the Impact of global changes on river basins and aquifer systems		resources, defining risk scenarios and local actions to prevent impacts on MDGs				
	·Capacities built to track the effects of climate change on groundwater	UNICEF Country Programme China 2008-2010, section 3.4.2	MOWR	3.3.2 Build capacities to track the effects of climate change on groundwater	35,000	100,000	100,000	235,000
	·Monitoring and Modelling of groundwater level and quality for management and control developed and tested		MOWR	3.3.3 Monitor and analyze groundwater level & quality, develop and test a model of management and control of ground water level	75,000	208,000	182,000	465,000
	A platform established at national level for exchange of information, techniques and experiences		MOWR	3.3.4 Organize a series of training workshops and on-site trainings for information and experience dissemination	90,000	112,000	28,000	230,000
3.4 Enhanced strategies for climate-proofed and environmentally sound agricultural production: Agricultural development in selected agro-ecosystems of the Yellow River Basin	·Coordination mechanisms established ·IS established and made functional ·Situation analysis report produced	FAO China Country Programme for 2008-2010, impact of climate change on food and agriculture	MOA	3.4.1 Establish multidisciplinary teams at national and provincial levels, develop multi-sector IS, and conduct situation analysis	170,000	40,000	15,000	225,000
	·Capacity of county, region and province authorities to implement multidisciplinary and participatory approaches towards C-PESAP strengthened		MOA	3.4.2 Train the MDTs, select pilot agro-ecosystems, and involve authorities to develop a roadmap for communities and farmer associations participation	197,000	72,000	0	269,000
	·Suitable agricultural practices to address C-PESAP identified ·Operational plan ·Strengthened information and knowledge exchange		MOA	3.4.3 Compile suitable agricultural practices to address C-PESAP and an operational plan, and feed into the IS to shared with stakeholders	202,000	62,000	0	264,000

	·Training manuals, field technicians, farmers associations receiving trainings ·C-PESAP integrated at farm and landscape levels in selected agro-ecosystems		MOA	3.4.4 Train field technicians and farmer associations in selected agro-ecosystems, and pilot suitable agricultural practices with farmers/farmers associations	0	370,000	200,000	570,000
	·Integrated action plans for C-PESAP in place in selected eastern Yellow River basin provinces have		MOA	3.4.5 Formulate four to five provincial action plans for C-PESAP based on experience derived from the project	0	0	160,000	160,000
Outcome 4: Project monitoring and evaluation								
4.1 Management, coordination, monitoring and evaluation	National Project Coordinator and Assistant to Project Coordinator	UNDP UNDP CPD (2006-2010) Output 6 – End-use energy efficiency and application of new and renewable energy technologies improved, see activities No. 111, 112, 113, 114, 121, 211 and 221	NDRC	4..1.1 Project coordination and administration, reporting, audit and evaluation	42,000	69,000	69,000	180,000
	PMO administration costs			4.1.2 PMO administration cost	17,000	50,000	51,762	118,762
	UN Programme Coordinator			4.1.3 UN Programme Coordinator	72,000	89,000	89,000	250,000
Totals without management fee (Year 3 includes US $5 million of co-financing)					3,410,000	5,050,250	7,736,012	16,196,262
Management fee for MDG-F (7%)					238,700	353,518	191,521	783,738
Government co-financing (in kind)					600,000	700,000	700,000	2,000,000
Project preparation/formulation					20,000	0	0	20,000
Totals					4,268,700	6,103,768	8,627,533	19,000,000

5.2 WORK PLAN AND BUDGET

The private sector contributes with US$ 5 millions for the replication of heat-recovery technology in coal gangue brick manufacturing. The government of China contributes with US$ 2 millions in kind to cover premises, logistics assistance, personnel, etc. The annual work plan and budget for the first year of the programme, 2008, can be found in Annex I.

6. MANAGEMENT AND COORDINATION ARRANGEMENTS

This programme will be implemented by participating UN Agencies in cooperation with participating national partners. MOFCOM, which serves as the national focal point of the UN System in China, is responsible for overall coordination of the Programme and is ultimately responsible for achieving its objectives. It has the authority to sign the Joint Programme Document on behalf of all Government partners. NDRC takes the leading coordination role on implementation of the Programme. The UN Resident Coordinator reports to UNDP/Spanish MDG Achievement Fund Office on behalf of the Programme. He takes overall responsibility for facilitating collaboration between participating UN Organizations to ensure that the programme is on track and that promised results are being delivered.

A national MDG Steering Committee (NSC) is established, comprising: a) the UN Resident Coordinator b) senior representatives from MOFCOM and NDRC and c) a representative from the Government of Spain. The Co-chairs are the UN Resident Coordinator and the senior representative from the Government of China. Other representatives and observers will be invited by the co-chairs as appropriate. The NSC's role is to provide oversight and strategic guidance to the programme. The NSC will normally meet semi-annually and will make decisions by consensus. The specific responsibilities of the NSC will include:

a. Reviewing and adopting the Terms of Reference and Rules of Procedures of the NSC and/or modifying them, as necessary (Generic Terms of Reference can be found on the MDTF website);

b. Approving the Joint Programme Document before submission to the Fund Steering Committee. Minutes of meeting to be sent to MDG-F Secretariat with final programme submission;

c. Approving the strategic direction for the implementation of the Joint Programme within the operational framework authorized by the MDG-F Steering Committee;

d. Approving the documented arrangements for management and coordination;

e. Accepting programme baselines to enable sound monitoring and evaluation;

f. Approving the annual work plans and budgets as well as making necessary adjustments to attain the anticipated outcomes;

g. Reviewing the Consolidated Joint Programme Report, providing strategic comments and decisions and communicating this to the Participating UN and national Organizations;

h. Suggesting corrective action to emerging strategic and implementation problems;

i. Creating synergies and seeking agreement on similar programmes and projects by other donors;

j. Approving the communication and public information plans prepared by the PMO.

The national and international organizations directly involved in implementing this joint programme form the Programme Management Committee (PMC), co-chaired by the UNRC or his designate and NDRC or his designate. UNRC or his designate is responsible for coordination among UN organizations. NDRC or his designate is responsible for coordination among national organization. UNRC and NDRC will work closely to ensure sound operation of the program, including proposing PMC meetings as necessary. The PMC will be an operational sub-entity of the existing UN Theme Group on Climate Change and Environment, which has responsibility inter alia for overseeing the UN's broader work in the climate change field. The Joint Programme Coordinator and experts will be invited to the PMC meetings as

needed. The specific areas over which the PMC will have oversight are listed below. These areas of oversight need not be carried out by the full PMC per se. As determined by the PMC Co-Chairs, some of the areas would be executed virtually, some would be carried out by the Co-Chairs or their designate, and some would be managed by the relevant UN and national partners at output level.

a. ensuring operational coordination;

b. appointing the Programme Coordinator;

c. managing programme resources to achieve the outcomes and output defined in the programme;

d. aligning MDG-F funded activities with the UN Strategic Framework or UNDAF approved strategic priorities;

e. establishing adequate reporting mechanisms in the programme;

f. integrating work plans, budgets, reports and other programme related documents; and ensuring that budget overlaps or gaps are addressed;

g. providing technical and substantive leadership regarding the activities envisaged in the Annual Work Plan;

h. agreeing on re-allocations and budget revisions and making recommendations to the NSC as appropriate;

i. addressing management and implementation problems;

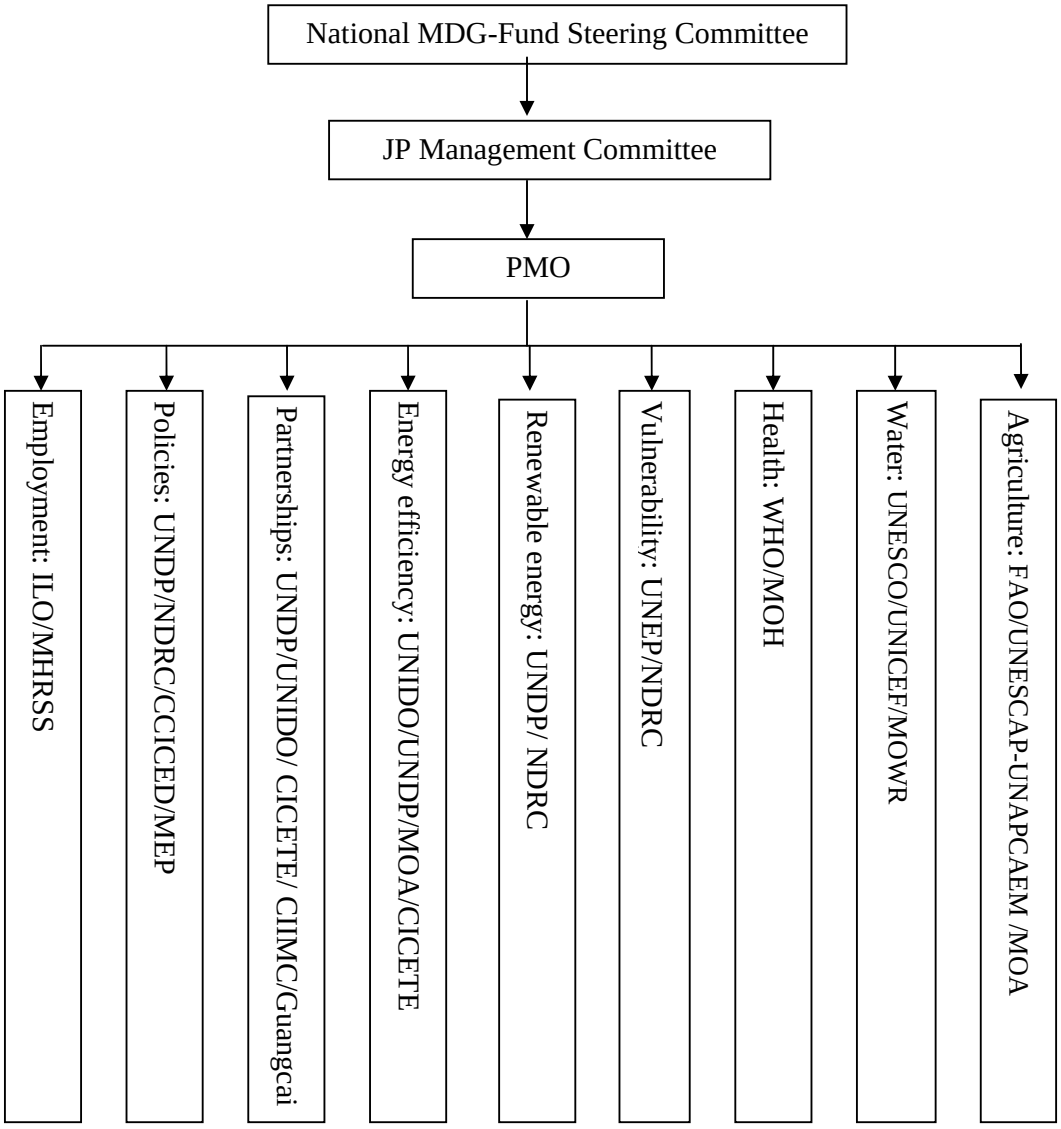
j. identifying emerging lessons learned;

k. establishing communication and public information plans; and

l. integrating work plans, budgets, reports and other programme related documents; and ensuring that budget overlaps or gaps are addressed;

The Project Management Office (PMO) is established in NDRC's premises and is responsible for daily management of the joint programme. A UN Programme Coordinator, recruited by the RC Office, and working under the guidance and direct supervision of the UN Resident Coordinator, will work in the PMO and will coordinate the UN Agencies' activities on a day to day basis. Alongside him / her, a national programme coordinator (NPC) and an assistant to NPC are recruited by NDRC. They work under the guidance and direct supervision of the Co-Chair of the Programme Management Committee nominated by NDRC. They are responsible for the project management and coordination among ministries, agencies, and project implementing partners under the guidance of NDRC The PMO as a whole will prepare all the documentation required by the PMC and will service its meetings. The PMO also provides administrative and management services to UN agencies, Ministries, agencies, and partners as required.

At implementing level, one participating national partner and the respective UN agency take overall responsibility and accountability for each output, as detailed below. They report to the PMO.



6.1 MANAGEMENT AND COORDINATION ARRANGEMENTS FOR EACH OUTPUT

The programme is a cross-sector programme and covers a wide-range of components. To ensure the effective implementation, each component is linked to one UN Agency, which is technically and financially responsible for the implementation. To strengthen synergies and complementarities, each agency works in close cooperation with other key UN agencies and partners that have significant experience in the given or related components - to ensure the maximum degree of results and information dissemination and usage. The key linkages are shown in the paragraphs below.

The Programme Coordinator will submit the joint annual narrative progress report and financial report to the Resident Coordinator, who will formally submit it to the MDTF Office in New York.

→ **UNDP (components 1.1.1-1.1.4, 1.2.1, 2.1.1 and 2.2.1):** All UNDP activities will be implemented in line with UNDP National Execution Rules. The overall Implementing Partner for UNDP are the China International Centre for Economic and Technical Exchange (CICETE), under Ministry of Commerce, with several Cooperating Agencies for different activities as outlined in the results matrix. UNDP provides implementation support services as requested. Coordination with related

UNDP projects in China are ensured through the UNDP Country Office. Project offices are be established for each Cooperating Agency as noted above, under the supervision and guidance of CICETE.

→ **UNIDO (component 1.2.2 and 2.1.2)**: The components are coordinated by UNIDO, at the international level, and by the Guangcai and MOA at the country level. For the first, UNIDO provides implementation support services as requested and consults with UNDP, UNEP and other UN Global Compact members to implement all activities, for the second, the project management fall under MOA, to which UNIDO appoint an advisor to facilitate the work and communication between UNIDO, MOA and PMO. UNIDO works in cooperation with ILO and WHO for monitoring working environment conditions in selected enterprises.

→ **WHO (components 3.2.1-3.2.2)**: The component will be coordinated by WHO at the international level. At the country level, the Ministry of Health will be the projects' key focal point. The project will involve active participation of MOH and MEP staff (and other relevant agencies) at national and local levels, in activities identified in the proposal, including the exchange of international experiences on EH systems, leadership development for climate change and development of new environmental health management and information systems., and Project will also work with UN agencies such as UNEP and UNDP.

→ **UNEP (components 3.1.1-3.1.2)**: UNEP is responsible for the management of its component, in close collaboration with National Climate Change Coordination Committee, MEP, MOST, SOA, CAS local government and sister UN agencies including UNDP, UNESCO and FAO. UNEP hires national staff to support the Project Office in the implementation of the component. Advisors are appointed to facilitate the work and communication between UNEP and Chinese partners.

→ **FAO (components 3.4.1-3.4.5)**: The component is coordinated by FAO at the international level, and by MOA at country level. CAAS/MOA takes the leading role in project implementation with support of a technical group composing experts from relevant fields for coordination with related departments/partners. A national advisor is recruited to facilitate the project implementation. Technical and managerial support for project is provided by FAO at international level. FAO works in cooperation with UNESCO, UNICEF, UNEP, and UNAPCAEM, who are responsible for related components.

→ **UNESCO (component 3.3.1):** UNESCO takes the lead role for its work and works in cooperation with UNICEF, UNDP, UNEP, WHO, FAO, UNIDO. From the side of the Government of China the Ministry of Water Resources (MOWR) plays the leading role in field-level implementation. The other main cooperating partners includes NDRC, Ministry of Health, Ministry of Construction, MOST, Ministry of Agriculture, MEP, CAS, Yellow River Conservancy Commission which is under MOWR, and Municipal Governments, etc.

→ **UNICEF (component 3.3.2):** UNICEF plays the lead role for the coordination of involved UN agencies, notably UNESCO and WHO, and work closely with Ministry of Water Resource, while the Ministry of Water Resources takes the lead role for the implementation of this component under a technical support from a research-working group consisting of experts from different agencies and for coordination of other related government partners, including MOH/NPHCCO and China CDC, CGS, IWHR and the CGM of MOWR.

→ **ILO (components 1.2.3 and 3.1.3):** The components will be implemented jointly by ILO and MHRSS with participation of ILO social partners. ILO will provide technical support for the project and play the lead role in coordinating the involved UN Agencies (UNIDO, FAO and UNEP).

→ **UNESCAP-UNAPCAEM (component 2.1.3):** UNAPCAEM is responsible for the management of its component, in close collaboration with FAO and UNDP. International consultants introduce good

practices and experiences from other countries and provide technical advice. National staff provides assistance consultants in collecting data and the organizing the daily work.

7. FUND MANAGEMENT ARRANGEMENTS

The administration of the programme follows the "Pass-Through" fund management option, in accordance with the planning and financial procedures as explained in the UNDG Guidance Note on Joint Programming.

UNDP will act as Administrative Agent in accordance with the policy of 26 June 2007 on "Accountability when UNDP is acting as Administrative Agent in UNDP Multi-Donor Trust Funds and/or UN Joint Programmes", see http://www.undp.org/mdtf/docs/UNDP-AA-guidelines.pdf
As per this policy, accountability for UNDP's Administrative Agent function rests with the Executive Coordinator of the MDTF Office. However, specific tasks related to the Administrative Agent role may be performed by the UNRC with explicit delegation from the Executive Coordinator of the MDTF Office.

In the performance of any Administrative Agent tasks at the country level under delegated authority the UNRC will be accountable to the Executive Coordinator of the MDTF Office. Detailed agreements on the delegated performance of specific Administrative Agent tasks will be established by the MDTF Office on a case by case basis ensuring that capacity requirements are met.

On receipt of a copy of the signed Joint Programme document, the MDTF Office will transfer the first annual instalment to each Participating UN Organization. To request the fund transfer, the RC will submit the Fund Transfer Request Form to the MDTF Office. The transfer of funds will be made to the Headquarters of each Participating UN Organization. Each organisation assumes complete programmatic and financial responsibility for the funds disbursed to it by the administrative agent and can decide on the execution modality, and method of fund transfer to its partners and counterparts following the organisation's own regulations (as set out below).

Each Participating UN Organization establishes a separate ledger account for the receipt and administration of the funds disbursed to it by the Administrative Agent. Participating UN organisations are requested to provide certified financial reporting according to a budget template provided by the MDTF Office. Participating UN Organizations are entitled to deduct their indirect costs on contributions received according to their own regulations and rules, taking into account the size and complexity of the particular programme. However, indirect costs cannot exceed 7 % of programme expenditure.

Subsequent instalments will be released in accordance with Annual Work Plans approved by the NSC. The release of funds is subject to meeting a minimum commitment threshold of 70% of the previous fund release to the Participating UN Organizations combined (Commitments are defined as legally binding contracts signed, including multi-year commitments which may be disbursed in future years). If the 70% threshold is not met for the programme as a whole, funds will not be released to any organization, regardless of the individual organization's performance.

On the other hand, the following year's advance can be requested at any point after the combined disbursement against the current advance has exceeded 70% and the work plan requirements have been met. If the overall commitment of the programme reaches 70% before the end of the twelve-month period, the participating UN Organizations may upon endorsement by the NSC request the MDTF to release the next instalment ahead of schedule. The RC will make the request to the MDTF Office on NSC's behalf.

Any fund transfer is subject to submission of an approved Annual Work Plan and Budget to the MDTF Office.

Below are the specific cash transfer modalities arrangements of the UN agencies involved:

→ **FAO:** FAO-China will transfer funds to the relevant national partners on reimbursement basis. Funds will be managed according to FAO financial rules and regulations.

→ **ILO:** The funds will be transferred to ILO HQ in Geneva. The ILO Beijing Office will manage the funds, and will apply advancing and reimbursement modality to national partners. Funds will be managed according to ILO financial rules and regulations.

→ **UNESCAP-APCAEM:** The funds will be transferred from UNESCAP in Bangkok to APCAEM, who will issue contracts, through UNESCAP, and pay upon delivery of services bases. Funds will be managed in accordance with UNESCAP financial rules and regulations.

→ **UNDP:** Funds will be transferred from UNDP HQ to UNDP-China. Funds will be applied to the project activities and transferred to CICETE. Fund utilization will be according to the UN Harmonized Approach to Cash Transfers. The payment will take the form of "direct cash transfer", "direct payment" or "reimbursement". Funds will be managed in accordance with UNDP financial rules and regulations.

→ **UNEP:** The UNEP China Office will manage the Funds in accordance with UNEP's financial rules and regulations and with the support of the UNEP Regional Office for Asia and the Pacific. Accountable advances will be transferred to the selected partners in this project, following the designated modalities outlined in the agreements and/or subcontracts with UNEP.

→ **UNESCO:** Funds will be transferred from UNESCO HQ to UNESCO Office Beijing. UNESCO Office Beijing will transfer funds to the relevant national and local partners under contracts. The first advance payment will be released upon the submission of a work plan with budget estimate. Successive payments will be released upon the submission of progress reports, and the final payment upon the completion of the project activities covered under the contract and the submission of a final report with certified financial statement. Funds will be managed in accordance with UNESCO financial rules and regulations.

→ **UNICEF:** Funds will be transferred from UNICEF HQ to UNICEF-China. Funds will be applied to the project activities and transferred to the MOH. Fund utilization will be according to the UN Harmonized Approach to Cash Transfers. The payment will take the form of "direct cash transfer", "direct payment" or "reimbursement". Funds will be managed in accordance with UNICEF financial rules and regulations.

→ **UNIDO:** Funds will be transferred from UNIDO HQ to UNIDO Office Beijing, who will transfer funds to the relevant national and local partners under contracts. The first advance payment will be released upon the submission of a work plan with budget estimate. Successive payments will be released upon the submission of progress reports, and the final payment upon the completion of the project activities covered under the contract and the submission of a final report with certified financial statement. Funds will be managed according to UNIDO financial rules and regulations.

→ **WHO:** The funds will be transferred from WHO HQ to WHO-China. The reimbursement of expenditure will be managed according to WHO's financial rules and regulations for the Government Cooperative Programme, and payment on Agreement for Performance of Work (APW) and Direct Financial Cooperation (DFC) in delivery of products. Funds will be managed according to WHO financial rules and regulations.

8. FEASIBILITY, RISK MANAGEMENT AND SUSTAINABILITY OF RESULTS

The overall level of risk of the programme is very low as all components have high-level and strong support from Government. Some risks for achievement of quality results, however, exist. These include insufficiency of data and difficulties in coordination among the stakeholders. Assumptions on which success of local implementation of the programme depend on the willingness of local governments and the private sector to adopt new technologies as well as the suitability of social and technical conditions at

the local-level. Finally, some work, such as the CDM initiatives, will depend on confirmation of feasibility during the preliminary phase. Measures to address such risks include: 1) establishment of an effective coordination mechanism, 2) involvement of broader stakeholders for data collection, and 3) strong consultation at the local-level to ensure technologies and initiatives are adjusted to meet local conditions. The programme has several innovative features including incorporation of social and economic considerations, and a partnership approach involving various partners in each activity. These innovations will contribute to sustainability of results through identifying ways to mainstream results and establish means for future replication through national and local financing.
The risks associated with the overarching climate policy, mitigation, and adaptation segments of the program are given in further detail below. More detailed listing of risks and assumptions associated with each output are given in the table outlining the monitoring and evaluation framework in the next section.

8.1 POLICY

Risk: a shift in political direction away from engagement in international climate negotiations.

Preventive measures put in place: In terms of political direction, China has shown a strong commitment to engagement. By supporting China in preparing for post-Kyoto negotiations, the programme adds further strength for continued engagement.

8.2 MITIGATION

Risk: Mitigation initiatives at the local-level will depend strong on technology being both available and appropriate technologically, economically, and socially. In general, the companies operating in the technology areas of interest for rural applications will be small and weak,

Preventive measures put in place:
- → It will be important for pilot projects to establish financial tools, and produce feasibility studies to support widespread dissemination that such companies cannot achieve on their own.
- → Success in the adoption of technology will also depend on supportive legislation, technical and financial measures, which are addressed by the programme.

8.3 VULNERABILITY ASSESSMENTS AND ADAPTATION PLANNING

Risk: Lack of programme ownership by all parties.

Preventive measures put in place: Through the proper distribution of tasks, responsibilities and decision-making processes, all the parties have incentives to become and remain involved.

8.4 OVERALL RISKS

- → Lack of data, information sharing on which to base policy analyses, technological model development and validation and assessment and formulation of adaptation measures. Uncertainty associated with available data and models to predict the impact of climate change has to be considered.
- → Lack of consensus and effective coordination among parties, low participation.
- → Lack of effective coordination among parties.
- → Lack of trainers, technical staffs, and technologies suitable for the specific conditions.
- → Lack of effective data assessment, as data obtained through the programme.
- → Cross-sector components and over-compartmentalization or overlapping of initiatives.
- → Cost sharing with public and private sector for replication of the new technological models.
- → Achieving targets set in the areas of water assessment, groundwater monitoring, and agriculture development projects relies on the involvement and active participation of water, health, agriculture

and environmental protection entities, as well as administrative bodies at national and local-level. Coordination is critical.

8.5 PREVENTIVE MEASURES PUT IN PLACE

→ Data, information sharing: thanks to the large number of UN Agencies, Central and Local Government bodies and institution, this risk is reduced through the establishment of an effective information sharing mechanism, coordinated by the UN Resident Coordination Office, at UN level, and by NDRC, at National-level.
→ Consensus and effective coordination among parties: two measures are adopted: a) connecting all parties involved, at all levels, to the "Management committee" giving clear tasks and responsibilities, strengthening the sense of program ownership and b) the UN Resident Coordinator's Office and the NDRC plays a well proven and strong coordination role.
→ Trainers, technical staffs and technologies: this is a low risk because one of the added values of an internationally implemented programme, versus a national programme, is the access and contribution of a wide range of experience and inputs worldwide.
→ Data assessment: an additional value addition of an international implemented programme, versus a national programme, is the capability of keeping track and control of the information generated.
→ Cross-sector components and over-compartmentalization or overlapping of initiatives. Two measures are adopted to minimize the risk: a) establishment of a Project Management Office responsible for, among others, for the formulation in collaboration with the involved organization, of the joint work plan and b) the work plan will be reviewed and approved by the "Management committee". In this way overlapping between the involved organizations will be avoided and the synergies between the various components of the joint programme will be strengthened.
→ Cost sharing: Government and Private Sector will mobilize funds for cost sharing, mainly in the energy component. The programme had been designed in a way that co-funding is linked only to the replication of pilot models and therefore does not affect the targets sets with the Spanish Fund contribution. Furthermore, as for previous experience, once the project is launched, and the pilot models are validated and the awareness programme is delivered, the public and private sector will respond adequately.
→ Achieving targets set in the areas of water assessment, groundwater monitoring, and agriculture: to minimize the risks, cooperation models are first piloted in selected areas and later applied at national-level. NDRC coordination role will ensure adequate responses. In addition, FAO's 15-year experience in the agriculture sector in participatory management projects in different parts of China will contribute to ensuring that this risk is minimized.

9. ACCOUNTABILITY, MONITORING, EVALUATION AND REPORTING

On an annual basis, the lead UN Organizations for each output are required to provide narrative reports on results achieved, lessons learned and the contributions made to the Joint Programme.

The reporting mechanism will be anchored in the common Results Framework (for format refers to UNDG Guidance Note on Joint Programming). The agencies will channel their report contributions directly into an integrated reporting system.

Budget provisions have been made to cover the operating costs of joint monitoring and reporting (within the PMO). The monitoring system will track the Participating UN Organizations' individual contributions to the programme outputs.

The MDTF Office is responsible for the annual Consolidated Joint Programme Progress Report, which will consist of three parts:

a. AA Management Brief. The Management brief consists of analysis of the certified financial report and the narrative report. The management brief will identify key management and administrative issues, if any, to be considered by the NSC.

b. Narrative Joint Programme Progress Report. This report is produced through an integrated Joint Programme reporting arrangement. The report will be reviewed and endorsed by the PMC before it is submitted to the MDTF Office on 28 February of each year.

c. Financial Progress Report. Each Participating UN organization will submit to the MDTF Office a financial report stating expenditures incurred by each programme during the reporting period. The dead-line for this report is 31 March.

In addition to the required annual reports participating UN organizations will provide quarterly updates to ensure an open flow of information to the donor.

The joint programme will have a final evaluation and mid term review. The mid term review will be organized by the MDG-F Secretariat.

The programme-monitoring framework for the joint programme is given in the Table No. 4 below. It outlines expected results from the results framework, corresponding indicators (with baselines and indicative timeframes), methods of collecting indicators, responsibility for doing so, and risks and assumptions.

Table No. 4: Program Monitoring Framework

Expected Results	Indicators	Means of verification	Collection methods	Responsibilities[2]	Risks and assumptions
JP Outcome 1: Mainstreaming climate change mitigation and adaptation into national and sub-national policies, planning and investment frameworks					
1.1 Improved policies and partnerships at national-level to mainstream climate change mitigation and adaptation into policy frameworks	Indicator: No. of scientists and officials having capacity for the post 2012 negotiations Baseline: 50	Training materials, training workshop agenda and minutes	Questionnaire, workshops	UNDP CICETE ONLGCC	Sufficient importance attached by the scientific research community and government
	Indicator: No. of agreements of technology transfer and investment Baseline: 0	Agreements of technology transfer and investment	Participation in signing ceremonies	UNDP CICETE ONLGCC	International technology vendors and investors have confidence in the market of China
	Indicator: A knowledge hub for global best practices on mitigation and adaptation Baseline: No such information system	Reports of the design, test, deployment, maintenance	Regular project management reporting system	UNDP CICETE ONLGCC	Information is available from relevant international stakeholders
	Indicator: No. of cooperative initiatives added into the south-south cooperation framework Baseline: 0	Study tour plans, reports, and cooperation proposals	Study tours, workshops	UNDP CICETE ONLGCC	Developing countries attach increasing importance to climate change as a global issue
	Indicator: A new high-level Climate Change Policy Task Force Baseline: No dedicated task force on climate change policy	Recommendations to the central government, thematic publications on climate change	Regular project management reporting system	UNDP CICETE CCICED	The central government will consider the recommendations from the task force
	Indicator: Basic Energy Law draft Baseline: No basic energy law	Text of Basic Energy Law, background investigation and problem analysis report	Regular project management reporting system	UNDP CICETE ONELG	The People's Congress will consider the law draft
	Indicator: Series of energy strategies Baseline: Lack of effective energy strategies	Strategy papers, background investigation and problem analysis report	Regular project management reporting system	UNDP CICETE ONELG	Various relevant ministries will consider the strategies
1.2 UN-business partnerships and new 'green' financing mechanisms to mainstream climate	Indicator: A UN-Business Compact on Climate Change, and series of high profile communication and awareness raising activities, including citizen engagement Baseline: No such compact	Compact text	Workshop	UNDP/UNIDO CICETE Guancai, CIIMC UNCTAD	Active participation from enterprises in China and abroad

[2] The first agency listed for each item is the Agency with lead responsibility.

Expected Results	Indicators	Means of verification	Collection methods	Responsibilities[2]	Risks and assumptions
change and energy into investment frameworks and business practices	Indicator: No. of climate change-friendly designs and products from multinational firms Baseline: To be identified during the first year of the project implementation	Specifications of products, customer and market survey report	Customer and market survey	UNDP/UNIDO CICETE Guancai, CIIMC UNCTAD	Multinational firms are willing to take corporate responsibility and improve corporate image
	Indicator: No. of best practices of "green employment" Baseline: 0	Records, photos, and videos of demonstration process and results; brochure of experience and lessons	Site visits, consultations Project management reporting system	ILO MHRSS CEC CASS ACFTU	Full participation and cooperation from climate impacted industries
JP Outcome 2: Establishment of innovative partnerships and dissemination of technologies to mitigate climate change and increase local access to sustainable energy					
2.1 Development and dissemination at the local level of innovative models for energy efficiency	Indicator: Partnership and financing for one pilot clean coal power plant Baseline: No clean coal power plant in the province	Agreements of technology transfer and investment	Study tours, signing ceremony, regular project management reporting system	UNDP CICETE, Shanxi Government, Earth Institute, CIIMC	Strong policy incentives put in place on the investors and enterprises
	Indicator: No. of entities and individuals received Replication of results from demonstration Baseline: 0	Agreements of technology transfer and investment	Study tours, signing ceremony, regular project management reporting system	UNDP CICETE, Shanxi Government, Earth Institute, CIIMC	Strong policy incentives put in place on the investors and enterprises
	Energy and resources efficiency model developed Indicator: model finalized Baseline: no model available Timeframe: 1st semester	Records, photos, and videos of demonstration process and results; engineering guidelines; brochure of experience and lessons	Site visits, consultations, Project management reporting system	UNIDO MOA Counterpart companies	Positive cost assessment results, strong policy enforcement, and effective coordination among project/counterpart companies
	Pilot bricks making factories established Indicator: Number of the pilots established: 2 Baseline: No enterprises using energy efficiency coal gangue technology Timeframe: 3rd semester	Progress report; M&E report; ammeter readings	On site monitoring system for pilot sites and replication sites in the 3rd semester	UNIDO MOA Project staff for pilot sites Counterpart companies / project staff from replication sites	Effective standardization of measuring means, positive cost assessment results, and strong policy enforcement

Expected Results	Indicators	Means of verification	Collection methods	Responsibilities[2]	Risks and assumptions
	Pilot bricks making factories performance Indicators (pilot sites): - Coal gangue brick production: No. 150 Millions/year - Energy production: 20,000 MW/year - Coal gangue recycled: 300,000 tonnes/year - Energy saving: 3,000 TCE/year - CO2 emission reduction: 6,000 tonnes/year - Unit energy consumption: 0 (Zero) TCE/ 1 Mil bricks (Coal gangue brick) Baseline: - Unit energy consumption: 132TCE/ 1 Mil bricks (Clay brick) Timeframe: 4th semester	Progress report; M&E report	On site monitoring system for pilot sites and replication sites in the 4th semester	UNIDO MOA Project staff for pilot sites Counterpart companies / project staff from replication sites	Effective standardization of measuring means, positive cost assessment results, and strong policy enforcement
	Indicators: - Energy generated has access to the grid and is marketable - Local policy incentives and financial tools available for energy efficiency coal gangue technology Baseline: - No access to the grid - No incentive and financial tolls for energy efficiency coal gangue technology	Agreement of grid-connection; Agreement of electricity purchase; Policy and financial tool assessment report	Site visits, consultations, project management reporting system	UNIDO MOA	Strong policy enforcement and enough project execution timeframe
	Technical competences upgraded Indicators: - Number of technicians trained and licensed: 60 Baseline: - No technicians available Timeframe: 5th semester	Training materials; Training workshop agenda and minutes; Progress report	Questionnaires; Project management reporting system	UNIDO	High impact of environmental issues over public opinion in rural areas

Expected Results	Indicators	Means of verification	Collection methods	Responsibilities[2]	Risks and assumptions
	New policy set up and financial tools established Indicators: - Energy generate has access to the grid and is marketable - Local policy and financial incentives available for power generation through waste heat recovering in coal gangue brick manufacturing Baseline: - No access to the grid - No specific policy and financial incentive to promote power generation through waste heat recovering in coal gangue brick manufacturing Timeframe: 4th semester	Policy and financial tool assessment report	Sector monitoring and assessment	UNIDO MOA	Policy enforcement and project execution timeframe
	Public Awareness campaign, rural areas Indicators: - Number of people aware of the problem and potential remedies Baseline: - Number of people aware of the problem and potential remedies Timeframe: 6th semester	Progress report Questionnaire	Questionnaires	UNIDO MOA	Low impact of environmental issues over public opinion in rural areas
	Monitoring and assessment of working condition and working environment. Set up efficiency management protocol and mitigation measures Indicators: - No. of enterprises monitored - Set up protocol productivity parameters Baseline: - Baseline productivity parameters Timeframe: 3rd semester	Progress report Questionnaire	Questionnaires	UNIDO MOA ILO/WHO Enterprises	Effective and full cooperation from counterpart companies
	Indicator: Specific conclusions and recommendations for application of CDM in biogas and conservation agriculture. Baseline: No recommendation	Report of status analysis; Texts of specific conclusions and recommendations	International seminar	APCAEM FAO MOA, CAAE, CTRC	Sufficient additional and justifications for CDM facility

Expected Results	Indicators	Means of verification	Collection methods	Responsibilities[2]	Risks and assumptions
2.2 Development and dissemination at the local level of innovative models for renewable energy in rural areas	Indicator: No. of biomass pellets replacing coal Baseline: 0	Technical guidelines and training materials	Site visit, questionnaire	UNDP CICETE Energy Bureau of NDRC	Acceptable quality of pellets made from biomass
	Indicator: No. of households with stoves and boiler Baseline: 0	Technical guidelines and training materials	Site visit, questionnaire	UNDP CICETE Energy Bureau of NDRC	Farmers willing to convert their stoves and boilers
	Indicator: Rural biomass waste management guidance Baseline: Not available	Publication of the guidance, training materials, training workshop plan	Questionnaire, workshops	UNDP CICETE Energy Bureau of NDRC	Active participation from rural communities
	Indicator: Increased market for productive applications of off-grid rural renewable power Baseline: To be identified during the first year of the project implementation	Agreement of purchase of off-grid rural renewable power	Questionnaire, site visit	UNDP CICETE Energy Bureau of NDRC	Acceptable price of off-grid rural renewable power to local users
	Indicator: No. of rural individual and TVEs received trainings on rural renewable power Baseline: 0	Guidelines, training materials and plans	Questionnaire, project management reporting system	UNDP CICETE Energy Bureau of NDRC	Active participation from rural individuals and TVEs
Outcome 3: Accelerated action by China in assessing vulnerability to climate change and developing adaptation plans and mechanisms					
3.1 Climate proofing of poverty reduction in less developed areas of West China and vulnerable coastal areas of Southeast China	Indicator: Situation analysis report of glacier in Himalayas (2008) Baseline: no situation analysis report	Baseline and assessment report of glacier in Himalayas	Site visit, workshop, and project management reporting system (2008)	UNEP, ONLGCC/MEP/MOST/CAS /local government	Data are available, and all investigation sites accessible
	Indicator: Adaptation strategy for glacier melting (2008-2010) Baseline: no adaptation strategy	Strategy for adaptation options to glacier melting	Site visit, international conference/workshop, and project management reporting system (2008-2010)	UNEP/ONLGCC/MEP /MOST/CAS /local government	Strong coordination among Chinese partners

Expected Results	Indicators	Means of verification	Collection methods	Responsibilities[2]	Risks and assumptions
	Indicator: Situation analysis report of sea-level rising in the selected coastal areas (2008) Baseline: no situation analysis report	Baseline and assessment report on sea-level rising in selected coastal areas	Site visit, workshop, and project management reporting system (2008)	UNEP/ONLGCC/ MEP/ SOA/MOST/ Local government	Data are available
	Indicator: Adaptation strategy for sea level rising (2009-2010) Baseline: no adaptation strategy	Strategy for adaptation options to sea level rising	Site visit, international conference/workshop, and project management reporting system (2008-2010)	UNEP//ONLGCC /MEP/ SOA/MOST/ Local government	Strong coordination among Chinese partners
	Indicator: - Outreach materials - no. of individuals received information (2009-2010) Baseline: limited publications and no. of individuals aware of the issues	Reports circulated, meetings/workshop held, website to disseminate lessons learned, brochures	Workshop/meeting, website, questionnaire (2009-2010)	UNEP/ONLGCC/ MEP/ MOST/CAS/SOA/ Local government	High impact of global environmental issues over local public opinion
	Indicator: - Number of feasibility studies, comparative studies and needs assessments conducted; - Geographical areas covered; - Number of policy recommendations given Baseline: - 0	Reports, peer review workshops, training materials	Investigation, consultation, and Project management reporting system	ILO MHRSS CEC CASS ACFTU	Full participation and cooperation from climate impacted industries
3.2 Policies and capacities developed to manage environmental health issues from climate change	Indicator: Institutional capacity for management of climate change risks to health at national and provincial levels Baseline: -no comprehensive knowledge base (KB) -no toolkit or capacity building model adapted to China's need -need for developing a national EH management systems in NEHAP	KB and report, Training tools and materials, Plans and minutes for workshops, Models for national EH management, NEHAP task force overall assessment report	Weekly updates; Peer review; WHO participation in workshop; Peer review	WHO MOH	Other countries will sufficiently provide their experience and lessons; Training tools and materials will appropriately consider China policy making characteristics; Managers in the health and environment are willing to develop skills on EH

Expected Results	Indicators	Means of verification	Collection methods	Responsibilities[2]	Risks and assumptions
	Indicator: Local action plans to protect human health from climate change risks Baseline: -no local EH action plan	Local analysis and EB base reports, Training tools, Training workshops, Local EH action plans	Weekly updates; Peer review; WHO participation in workshop; Peer review	WHO MOH	Other cities will sufficiently provide their experience and lessons; Training tools and materials will appropriately consider China local policy making characteristics
	Indicator: Capacity for climate risk assessment and specific policy recommendations Baseline: -Strategic analysis of environmental risks to health in China is out of date -Limited skills, access to tools and knowledge on EH impact assessment, risk assessment or cost benefit analysis	Strategic analysis of emerging health issues in environment contamination and climate change in China, Tools for environmental health assessment, Training materials for capacity building in EH assessment	Peer review ; WHO participation in workshop	WHO MOH	Strategic analysis of environmental risks to health can raise concerns and be framed around solutions; Potential high demand for capacity building can be managed with train the trainers approach
	Indicator: Health related climate impact monitoring capacity Baseline: -assessment of current EH monitoring system in China is out of date -limited skills, access to tools and knowledge on EH monitoring	Report of assessment of current EH monitoring system in China, Core set of EH indicators for China, Training tools and workshop plans for EH monitoring,	Weekly updates; peer review; WHO participation in workshop	WHO MOH	Equal focus placed on the data management and the use of information
	Indicator: No. of pilot EH monitoring systems established and made functional, and lessons shared Baseline: no EH monitoring system	Pilot improvement of EH monitoring in two provinces	Weekly updates; peer review; WHO participation in workshop	WHO MOH	Equal focus placed on the data management and the use of information
3.3 Capacities enhanced and policies developed for understanding and adapting to impacts of water resources changes on China's	Indicator: Policy recommendations and development of key indicators on the 11 identified challenges; Baseline: Fragmented, sector based policy papers	Status paper on overall water issues in China (11 challenges), Improved capacity on 11 challenges on water issues, Texts of policy recommendations	Survey and investigation; consultation workshops; annual project review	UNESCO MWR, Yellow River Conservancy Commission, ONLGCC, and NDRC	Conventionally weak inter-ministerial cooperation on water issues can be strengthened

Expected Results	Indicators	Means of verification	Collection methods	Responsibilities[2]	Risks and assumptions
environment and development	Indicator: Strategies and methodology to monitoring groundwater quality developed Baseline: National standard on groundwater quality index. Regional strategies and methodologies, No existing national strategies & methodologies	Questionnaire, Statistics, cross-check analysis	Project management reporting system; field visit	UNICEF, MWR, GCM, local water and Geological sectors	Able to reach agreement among government agencies; The pilot system can provide substantive inputs
	Indicator: Improved strategies and methodology to monitoring groundwater level Baseline: weak existing national strategies & methodologies	Statistical, analysis, proposal, upgrade measures	Project management reporting system; field visit	UNICEF, MWR, GCM, local water and Geological sectors	Able to reach agreement among government agencies; The pilot system can provide substantive inputs
	Indicator: An integrated groundwater system in high alter areas Baseline: weak integrated system on water quality and level in part of the areas	Data acquisition and processing system, annual review report, documentation materials and monitoring recording	Project management reporting system, field visit	UNICEF, MWR, GCM, local water and Geological sectors	Local government and farmers are supportive and cooperative
	Indicator: Partnerships at national level Baseline: Weak cooperation among sectors	Meeting inform, Meeting minutes, photos, annual review report	Project management reporting system, participation of the activities,	MWR, IWHR, CGM MOA, MOH, MEP, CDS	Active participation and adequate cooperation from government agencies
	Indicator: Model of management and control of groundwater level Baseline: No such model	Annual review report, documentation materials and leaders' speeches	Project management reporting system	MWR, CGS, local water and Geological sectors	Availability of the experts for translating technical data and project results into management and policy aspects
	Indicator: Long-term sustainable capacity after the end of the programme Baseline: No enough specific training on groundwater and climate change	Meeting inform, Meeting minutes, photos, annual review report, training materials	Project management reporting system	MWR, CGS, local water and Geological sectors	Availability of effective training materials and resources persons; Qualified trainings
3.4 Enhanced strategies for climate-proofed and environmentally sound	Indicator: National and provincial MDTs working with stakeholders (1st year) Baseline: MDTs not available currently	Regular reports of the MDTs, available to all stakeholders	Regular performance monitoring through surveys (twice a year)	FAO MOA, CAAS, YRB authorities	Relevant individuals and institutions are involved in early stages and effectively to close up gaps in expertise of MDTs

Expected Results	Indicators	Means of verification	Collection methods	Responsibilities[2]	Risks and assumptions
agricultural production: Agricultural development in selected agro-ecosystems of the Yellow River Basin	Indicator: A multi-sector information system for eastern provinces of the YRB facilitating the analysis and exchange of information (1st year) Baseline: No such information and knowledge system	The information system is functional and accessible by different stakeholders	User surveys twice a year	FAO MOA, CAAS, YRB authorities	Traditional sector approach to information management may hinder data gathering
	Indicator: Guidelines to involve communities and farmers associations in planning for C-PESAP (2nd year) Baseline: No guidelines available	Documented operational plans for participatory planning for C-PESAP	Review meeting in the 1st year	FAO MOA, CAAS, YRB authorities	Active participation of authorities from different sectors
	Indicator: Technical advice to local authorities to implement C-PESAP by trained MDTs (2nd year) Baseline: Lack of C-PESAP advice	Formal letter to local authorities, text of specific advice	Investigation, consultation, and training workshops	FAO MOA, CAAS, YRB authorities	Enough experts are available to form provincial MDTs
	Indicator: Menu of C-PESAP practices and options for implementation at local level available (2^{nd} year) Baseline: Practices dispersed or not documented	MDTs and authorities have access to these practices in the IS	Monitoring of IS information	FAO MOA, CAAS, YRB authorities	The proposed adaptation measures well consider the applicability to local circumstances
	Indicator: No. of trained field technicians, farmers and farmer associations in C-PESAP (2nd year) Baseline: 0	Training materials and meeting minutes	Training workshops and Questionnaire	FAO MOA, CAAS, YRB authorities	Active participation of farmers and farmer associations
	Indicator: Pilot testing of suitable C-PESAP practices (2-3rd year) Baseline: No such plan previously	Farmers implementing practices	Visits to farms and farmers associations	FAO MOA, CAAS, YRB authorities	Farmers are effectively involved in the planning and accept new technologies
	Indicator: Four to five provincial adaptation action plans for C_PESAP (3rd year) Baseline: No provincial action plan	Publication of the action plans, Approval of the action plans by local authorities	Terminal review meeting in the last year	FAO MOA, CAAS, YRB authorities	The local authorities will approve the action plans

10. EX ANTE ASSESSMENT OF CROSSCUTTING ISSUES

The joint programme makes special efforts to mainstream gender, human rights, and community participation into its activities and outputs. Activities associated with national level policies will make an effort to achieve sufficient representation of female policy analysts and researchers. Policy recommendations will carefully take into account human rights issues. Gender, human rights, and community participation will receive even stronger emphasis in the mitigation and adaptation components, as this focus in large part on local level initiatives. Health components in particular will put special emphasis on women. Certain rural energy initiatives will also emphasize the role of women. In particular, replacement of coal with biomass pellets will bring special benefits to women who, in areas with toxic coal, are more exposed than men as they spend more time indoors at the stove. Work in the area of productive applications for renewable energy will emphasize micro-enterprises developed by women. Finally, all local mitigation and adaptation initiatives will emphasize community participation in the planning and implementation process. The agricultural component will make use of: multidisciplinary teams (using expertise from different sectors), the concept of "trainees become trainers" (to increase and transfer capacity at different levels) and will promote decision-making in pilot places by different stakeholders, including research institutions, government authorities, technical multidisciplinary teams, farmers associations, field technicians and farmers participating in the demonstration of practices. This will be an important part of ensuring programme success – e.g. ensuring that technologies and strategies are appropriate to local conditions and accepted by local people through a consultative process.

11. LEGAL CONTEXT OR BASIS OF RELATIONSHIP

The cooperation or assistance agreements that each participating agency has with the Government of China will collectively provide the legal context for this programme.

→ **UNDP** This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of the People's Republic of China and the United Nations Development Programme, signed by the parties on 29 June 1979. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government cooperating agency described in that agreement.

→ **UNIDO** The UNIDO Beijing office was established in accordance with the Agreement between the Government of the People's Republic of China and MOFCOM. The Office was established in 1979.

→ **WHO:** The WHO Beijing office was established in accordance with the Agreement between the Government of the People's Republic of China and WHO. The Office was established in 1981.

→ **UNEP:** The UNEP Beijing office was established in accordance with the Agreement between the Government of the People's Republic of China and the United Nations Environment Programme on the Establishment of the UNEP Office in the People's Republic of China signed in 2003.

→ **FAO:** The Food and Agricultural Organization of the United Nations and the Government of the People's Republic of China signed agreement for the establishment of the FAO Representation in China, on 25 May 1982.

→ **UNESCO** As a specialized UN Agency of the United Nations, UNESCO contributes to building peace, poverty alleviation, sustainable development and international dialogue through education, science, culture and communications. Member States work closely in collaboration with the National Commissions for UNESCO with its counterparts in various intergovernmental committees and organizations, such as the International Hydrological Committee (IHP), the World Heritage Centre (WHC), the Intergovernmental Oceanographic Commission (IOC), etc.

→ **UNICEF** has a Basic agreement with the Government of China, which stipulates the roles and responsibilities of the two parties. The Country Programme is coordinated by the Ministry of Commerce and is implemented by sector ministries who are defined for each Country Programme and the projects under this.

→ **ILO**: Memorandum of Understanding between the Government of China (MHRSS) and the ILO signed in 2001 and the Decent Work Country Programme with tripartite constituents endorsed in August 2007.

→ **UNESCAP-UNAPCAEM:** The United Nations Asian and Pacific Centre for Agricultural Engineering and Machinery (UNAPCAEM) is a subsidiary body/regional institution of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), based in Beijing, P.R. China. Following the host country headquarters agreement signed between the Government of China and the United Nations in November 2003, APCAEM began its operations in 2004.

Annex I: annual work plan and budget for the first year of implementation (2008):

Annual targets	Activity	TIME FRAME 2008				UN agency	Responsible party	Planned Budget		
		Q1	Q2	Q3	Q4			Source of Funding	Budget description	Total amount
JP output	1.1 Improved policies and partnerships at national level to mainstream climate change mitigation and adaptation into policy frameworks									
A clear set of options for Post 2012 frame work put forward by China	1.1.1 Design China's post-2012 strategy and policies					UNDP	ONLGCC	MGD-F	Personnel I	-
								MGD-F	Personnel L	10,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	59,000
								MGD-F	Train/Conf	11,000
								MGD-F	Supplies	-
								MGD-F	Equipment	7,000
								MGD-F	Travel	5,000
								MGD-F	Miscell.	12,000
								MGD-F	Total	104,000
GCCI established as a main global hub for best practices and south-south cooperation	1.1.2 Design and launch Global Climate Change Institute					UNDP	ONLGCC	MGD-F	Personnel I	10,000
								MGD-F	Personnel L	10,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	80,000
								MGD-F	Train/Conf	30,000
								MGD-F	Supplies	-
								MDG-F	Equipment	40,000
								MGD-F	Travel	-
								MGD-F	Miscell.	10,000
								MGD-F	Total	180,000
Task Force set up as means of strategic research on links between MDGs and climate change and for donor coordination	1.1.3 Design and launch new CCICED Task Force on Climate Change, Environment and Rural Development					UNDP	CCICED	MGD-F	Personnel I	-
								MGD-F	Personnel L	12,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	30,000
								MGD-F	Train/Conf	25,000
								MGD-F	Supplies	10,000
								MGD-F	Equipment	10,000
								MGD-F	Travel	15,000
								MGD-F	Miscell.	5,000
								MGD-F	Total	107,000
Drafts integrating broad consensus on key points and international inputs	1.1.4 Series of experts consultations, international conferences towards drafts of new Basic Energy Law and National Strategy on Rural Energy Development					UNDP	ONLGCC	MGD-F	Personnel I	25,000
								MGD-F	Personnel L	33,500
								MGD-F	Contracts I	25,000
								MGD-F	Contracts L	194,000
								MGD-F	Train/Conf	50,000
								MGD-F	Supplies	13,500
								MGD-F	Equipment	14,500
								MGD-F	Travel	20,000
								MGD-F	Miscell.	7,000
								MGD-F	Total	382,500
JP output	1.2 UN-business partnerships and new 'green' financing mechanisms to mainstream climate change and energy into investment frameworks and business practices									
Active participation by key multinational and Chinese firms, covering various sectors	1.2.1 Engage multinational and local companies to increase awareness on climate change issues in China					UNDP	CICETE/ Guangcai	MGD-F	Personnel I	-
								MGD-F	Personnel L	4,403
								MGD-F	Contracts I	-
								MGD-F	Contracts L	7,339
								MGD-F	Train/Conf	7,339
								MGD-F	Supplies	2,936

								MGD-F	Equipment	2,446
								MGD-F	Travel	3,669
								MGD-F	Miscell.	1,223
								MGD-F	Total	29,355
	1.2.2 Engage multinational and local companies through a UN-Business Compact on Climate Change					UNIDO	CICETE/ Guangcai / CIIMC	MGD-F	Personnel I	-
								MGD-F	Personnel L	13,597
								MGD-F	Contracts I	-
								MGD-F	Contracts L	22,661
								MGD-F	Train/Conf	22,661
								MGD-F	Supplies	9,065
								MGD-F	Equipment	7,554
								MGD-F	Travel	11,331
								MGD-F	Miscell.	3,777
								MGD-F	Total	90,645
Complete preparatory work for the 'green' employment demonstration	1.2.3. Carry out needs identification and feasibility study, and select demonstration pilot cities with UNIDO and FAO					ILO	MHRSS	MGD-F	Personnel I	-
								MGD-F	Personnel L	-
								MGD-F	Contracts I	
								MGD-F	Contracts L	11,000
								MGD-F	Train/Conf	-
								MGD-F	Supplies	-
								MGD-F	Equipment	-
								MGD-F	Travel	-
								MGD-F	Miscell.	1,000
								MGD-F	Total	12,000
JP output	2.1 Development and dissemination at the local level of innovative models for energy efficiency									
Strong demand identified by local coal power producers and cost-effective technology transfer offers by international partners	2.1.1 Feasibility study on viable clean coal technologies and series of conferences to engage international financing and best practices					UNDP	CICETE	MGD-F	Personnel I	-
								MGD-F	Personnel L	10,000
								MGD-F	Contracts I	30,000
								MGD-F	Contracts L	50,000
								MGD-F	Train/Conf	15,000
								MGD-F	Supplies	8,000
								MGD-F	Equipment	8,000
								MGD-F	Travel	10,000
								MGD-F	Miscell.	7,000
								MGD-F	Total	138,000
Profile of the sub-sector completed; Pilot factories identified, full feasibility study including all engineering and financial aspects, heat recovery and power generation equipment selected	2.1.2 Identified pilot bricks making factories					UNIDO	MOA	MGD-F	Personnel I	50,000
								MGD-F	Personnel L	70,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	-
								MGD-F	Train/Conf	-
								MGD-F	Supplies	10,000
								MGD-F	Equipment	10,000
								MGD-F	Travel	15,000
								MGD-F	Miscell.	5,000
								MGD-F	Total	160,000
Feasibility studies of the CDM application in agricultural sector; Methodological guidelines	2.1.3 Study the potential and develop strategy for using the CDM facility for biogas and conservation agriculture, and organize a stakeholder workshop for result dissemination and inducing investment					UN-APCAEM	MOA	MGD-F	Contracts I	70,000
								MGD-F	Contracts L	30,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	-
								MGD-F	Train/Conf	35,000
								MGD-F	Supplies	-
								MGD-F	Equipment	-
								MGD-F	Travel	-
								MGD-F	Miscell.	5,000
								MGD-F	Total	140,000
JP output	2.2 Development and dissemination at the local level of innovative models for renewable energy in rural areas									

Strong participation by local biomass suppliers and users and cost-effective options identified	2.2.1 Feasibility study on household biomass technologies and series of conferences to engage local partners					UNDP	Energy Bureau of NDRC	MGD-F	Personnel L	24,000
								MGD-F	Contracts L	80,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	-
								MGD-F	Train/Conf	30,000
								MGD-F	Supplies	12,000
								MGD-F	Equipment	12,000
								MGD-F	Travel	12,000
								MGD-F	Miscell.	5,000
								MGD-F	Total	175,000
JP output	3.1 Climate proofing of poverty reduction in less developed areas of West China and vulnerable coastal areas of Southeast China									
Report on situation analysis and evaluation of risks posed by glacier melting in the Himalayan region	3.1.1 Analyze situation and primarily evaluate risks posed by glacier melting in the Himalayan region					UNEP	CCCC	MGD-F	Personnel I	10,000
								MGD-F	Personnel L	22,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	42,000
								MGD-F	Train/Conf	15,000
								MGD-F	Supplies	8,000
								MGD-F	Equipment	8,000
								MGD-F	Travel	10,000
								MGD-F	Miscell.	5,000
								MGD-F	Total	120,000
Assessment report on impacts of rising sea levels on ecosystem and socio-economic system in the Southeast coastal areas	3.1.2 Analyze situation and primarily evaluate impacts of rising sea levels on the Southeast coastal areas					UNEP	ONLGCC	MGD-F	Personnel I	10,000
								MGD-F	Personnel L	22,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	42,000
								MGD-F	Train/Conf	15,000
								MGD-F	Supplies	8,000
								MGD-F	Equipment	8,000
								MGD-F	Travel	10,000
								MGD-F	Miscell.	5,000
								MGD-F	Total	120,000
Preparatory work for the CC-to-employment impact assessment	3.1.3 Develop work plan and questionnaires, and launch the study, and consultations					ILO	MHRSS	MGD-F	Personnel I	6,000
								MGD-F	Personnel L	10,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	29,000
								MGD-F	Train/Conf	-
								MGD-F	Supplies	1,000
								MGD-F	Equipment	2,000
								MGD-F	Travel	2,000
								MGD-F	Miscell.	-
								MGD-F	Total	50,000
JP output	3.2 Policies and capacities developed to manage environmental health issues from climate change									
Draft Report available for comparative analysis of the database and good practices in EH management at international and national levels and improved capacity building on EH management at national and provincial levels to manage impacts of	3.2.1 Study EH management with a focus on climate change, and organize in-house training workshops and overseas study tours to impart knowledge					WHO	MOH	MGD-F	Personnel I	11,250
								MGD-F	Personnel L	5,000
								MGD-F	Contracts I	63,500
								MGD-F	Contracts L	25,000
								MGD-F	Train/Conf	74,250
								MGD-F	Supplies	10,000
								MGD-F	Equipment	-

climate change, training materials; Report of international experience learnt from study tour overseas								MGD-F	Travel	-
								MGD-F	Miscell.	27,500
								MGD-F	Total	216,500
Adapted WHO EH risk assessment tools suitable to the local conditions translated; Training materials available for EH risk assessment; the draft report available for a strategic assessment of the current EH issues and future challenges arising from development process and climate change	3.2.2 Adapt WHO EH risk assessment tools and training materials developed, and undertake a strategic assessment of the current EH issues and future challenges					WHO	MOH	MGD-F	Personnel I	33,750
								MGD-F	Personnel L	23,750
								MGD-F	Contracts I	93,500
								MGD-F	Contracts L	50,000
								MGD-F	Train/Conf	-
								MGD-F	Supplies	12,500
								MGD-F	Equipment	-
								MGD-F	Travel	10,000
								MGD-F	Miscell.	15,000
								MGD-F	Total	238,500
JP output	3.3 Capacities enhanced and policies developed for understanding and adapting to impacts of water supply changes on China's environment and development									
Capacities enhanced for understanding and adopting to impacts of water supply changes on China's environment and human development	3.3.1 Carry out present status analysis and need assessment, prepare thematic reports on challenges, and organize a training workshop					UNESCO	MOWR	MGD-F	Personnel I	-
								MGD-F	Personnel L	30,000
								MGD-F	Contracts I	20,000
								MGD-F	Contracts L	100,000
								MGD-F	Train/Conf	50,000
								MGD-F	Supplies	6,500
								MGD-F	Equipment	10,000
								MGD-F	Travel	20,000
								MGD-F	Miscell.	10,000
								MGD-F	Total	246,500
Methodology established and tested	3.3.2 Review and establish methodology to relate climate change with ground water, and collect data in selected pilot areas					UNICEF	MOWR	MGD-F	Personnel I	-
								MGD-F	Personnel L	-
								MGD-F	Contracts I	-
								MGD-F	Contracts L	10,000
								MGD-F	Train/Conf	-
								MGD-F	Supplies	15,000
								MGD-F	Equipment	-
								MGD-F	Travel	5,000
								MGD-F	Miscell.	5,000
								MGD-F	Total	35,000
Status and trend of groundwater logging simulated and analysed	3.3.3 Collect data of ground water logging and select suitable model for simulation and analysis in selected pilot areas					UNICEF	MOWR	MGD-F	Personnel I	-
								MGD-F	Personnel L	-
								MGD-F	Contracts I	-
								MGD-F	Contracts L	30,000
								MGD-F	Train/Conf	10,000
								MGD-F	Supplies	10,000
								MGD-F	Equipment	20,000
								MGD-F	Travel	-
								MGD-F	Miscell.	5,000
								MGD-F	Total	75,000
Capacity for on-site monitoring and	3.3.4 Train relevant staff with ground water					UNICEF	MOWR	MGD-F	Personnel I	-
								MGD-F	Personnel L	15,000

management of ground water resources in selected counties enhanced	monitoring and management at county level							MGD-F	Contracts I	-
								MGD-F	Contracts L	25,000
								MGD-F	Train/Conf	20,000
								MGD-F	Supplies	-
								MGD-F	Equipment	25,000
								MGD-F	Travel	5,000
								MGD-F	Miscell.	-
								MGD-F	Total	90,000
JP Output	3.4 Enhanced strategies for climate-proofed and environmentally sound agricultural production: Agricultural development in selected agro-ecosystems of the Yellow River Basin									
Coordination mechanisms established; IS established and made functional; Situation analysis report produced	3.4.1 Establish multidisciplinary teams at national and provincial levels, develop multi-sector IS, and conduct situation analysis					FAO	MOA	MGD-F	Personnel I	10,000
								MGD-F	Personnel L	15,000
								MGD-F	Contracts I	25,000
								MGD-F	Contracts L	55,000
								MGD-F	Train/Conf	20,000
								MGD-F	Supplies	25,000
								MGD-F	Equipment	-
								MGD-F	Travel	10,000
								MGD-F	Miscell.	10,000
								MGD-F	Total	170,000
Capacity of county and province authorities to implement multidisciplinary and participatory approaches towards C-PESAP strengthened	3.4.2 Prepare training materials and deliver trainings to MDTs, field technicians, farmers associations in select pilot agro-ecosystems					FAO	MOA,	MGD-F	Personnel I	10,000
								MGD-F	Personnel L	12,000
								MGD-F	Contracts I	15,000
								MGD-F	Contracts L	65,000
								MGD-F	Train/Conf	75,000
								MGD-F	Supplies	-
								MGD-F	Equipment	-
								MGD-F	Travel	15,000
								MGD-F	Miscell.	5,000
								MGD-F	Total	197,000
Commencement of identification suitable agricultural practices to address C-PESAP	3.4.3 Initiate research and extension services for suitable agricultural practices					FAO	MOA	MGD-F	Personnel I	10,000
								MGD-F	Personnel L	12,000
								MGD-F	Contracts I	25,000
								MGD-F	Contracts L	85,000
								MGD-F	Train/Conf	50,000
								MGD-F	Supplies	-
								MGD-F	Equipment	-
								MGD-F	Travel	10,000
								MGD-F	Miscell.	10,000
								MGD-F	Total	202,000
JP output	4.1 Management, coordination, monitoring and evaluation									
Management, coordination, monitoring and evaluation	4.1.1 National Project Coordinator and Assistant to Project Coordinator					UNDP	NDRC	MGD-F	Personnel I	-
								MGD-F	Personnel L	42,000
								MGD-F	Contracts I	-
								MGD-F	Contracts L	-
								MGD-F	Train/Conf	-
								MGD-F	Supplies	-
								MGD-F	Equipment	-
								MGD-F	Travel	-
								MGD-F	Miscell.	-
								MGD-F	Total	42,000
	4.1.2 PMO administration cost					UNDP	NDRC	MGD-F	Personnel I	-
								MGD-F	Personnel L	-
								MGD-F	Contracts I	-
								MGD-F	Contracts L	-
								MGD-F	Train/Conf	-
								MGD-F	Supplies	-
								MGD-F	Equipment	10,000

							MGD-F	Travel	2,000
							MGD-F	Miscell.	5,000
							MGD-F	Total	17,000
	4.1.3 UN Programme Coordinator				UNDP	UNDP COS	MGD-F	Personnel I	-
							MGD-F	Personnel L	72,000
							MGD-F	Contracts I	-
							MGD-F	Contracts L	-
							MGD-F	Train/Conf	-
							MGD-F	Supplies	-
							MGD-F	Equipment	-
							MGD-F	Travel	-
							MGD-F	Miscell.	-
							MGD-F	Total	72,000
Total Planned Budget									3,410,000
Management Fee for MDG-F (7%)									238,700
Project preparation/formulation						UNDP	UN	MGD-F	Personnel L/I	20,000
Government co-financing (in kind)									600,000
Total									4,268,700

Annex II: Job Description of the Programme Coordinator

I. Position Information	
Job code title: Pre-classified grade Supervisor: Duration of Initial Contract :	**UN Programme Coordinator** NOD Chair of the UN Theme Group on Environment and Climate Change, and the UN Resident Coordinator One year (full time) – Renewable

II. Organizational Context

Under a new **UN-China Climate Change Partnership Framework (CCPF)** (Budget: USD 12million; 2008-2010), the UN aims to help implement China's new National Climate Change Programme by supporting reduced greenhouse gas (GHG) emissions through national policy/legal measures and to support improved local capacities and partnerships for financing and technology. The programme also aims to ensure that poor and vulnerable communities in China are able to adapt to the impacts of climate change through adaptation policy frameworks in the areas of poverty reduction, water supply, agriculture and land management.

A UN Programme Coordinator is being recruited to provide support to the UN Office in China to implement these activities. The Coordinator works under the guidance and direct supervision of the Chair of the UN Theme Group on Environment and Climate Change (UNTGEC) to whom he/she reports. He/she will be accountable to the Chair of the UNTGEC, and to the Resident Coordinator. He/She will co-chair the Programme Management Committee (PMC) and, inter alia, coordinate the participating UN agencies' activities, consolidate the annual narrative progress report and financial report and provide strategic advice on implementation of various activities as described in the CCPF Project Document.

The Coordinator will work in close collaboration with participating UN agencies, Government officials, technical advisors and experts, multi-lateral and bi-lateral donors and civil society ensuring successful achievement of responsibilities.

III. Functions / Key Results Expected

Summary of Key Functions:

- Implementation of CCPF programme strategies related to climate change
- Management of achievement of CCPF results
- Creation of strategic partnerships, with special focus on bilateral donors and private sector
- Provision of top quality policy advice services to the Government and facilitation of knowledge building and management in climate change

1. Ensures **implementation of CCPF programme strategies** focusing on achievement of the following results:

- Closely liaising with the Project Management Office nominated by NDRC, to coordinate participating UN agencies inputs to achieve project results, monitor and evaluate programme performance;
- At output level, one agency will take lead responsibility and accountability for delivery of each output, while working with UN agencies as partners in the output;
- Thorough analysis and research on Climate Change trends and links to the political, social, economic and environmental situation in the country and preparation of substantive inputs to CCPF activities specified in the Results Framework;
- Awareness and knowledge of UN Climate Change Convention, its framework of analysis/action and related mechanisms such as the Clean Development Mechanism (CDM);

- Identification of areas for support and interventions within the area of climate change;
- Identification of sources of information related to climate change. Keeping abreast of policy changes regarding climate change issues and report accordingly;
- Monitoring and analysis CCPF programme, readjustments in portfolio;
- Participate in UNTGEC meetings and mechanisms for effective implementation of CCPF.

2. Ensures effective **management of the CCPF programme** within the thematic/sector areas assigned, focusing on quality control from formulation to implementation of the country programme achieving the following results:

- Effective application of RBM tools, and monitoring achievement of results;
- Coordination of CCPF implementation with the various executing agencies. Introduction of performance indicators/ success criteria, cost recovery, targets and milestones;
- Review and adjustment of CCPF project document according to agreed-upon governmental priorities and available resources;
- Initiation of CCPF activities, determination of required revisions, coordination of the mandatory and budget re-phasing exercises, closure of projects through review;
- Financial and substantive monitoring and evaluation of the project, identification of operational and financial problems, development of solutions. Participation in audit;
- Evaluation of the CCPF programmes impact. Monitoring and analysis of the programme environment, timely readjustments in portfolio;
- Consolidate the annual narrative progress report and financial report.

3. Ensures **creation of strategic partnerships** focusing on achievement of the following results:

- Development of partnerships with UN Agencies, IFI's, government institutions, bi-lateral and multi-lateral donors, private sector, civil society in climate change based strategic goals, country needs, and donors' priorities, with special attention to links between climate change and the MDGs;
- Analysis and research of information on donors, preparation of substantive briefs on possible areas of cooperation, identification of opportunities for initiation of new activities, active contribution to the overall office effort in resource mobilization;
- Undertaking advocacy task to keep abreast of government of China evolving climate change polices and legislation;
- Maintenance of CCPF project briefs, statements, and activity information for bilateral donors, academia, private sector, and other UN field offices to support UN's public awareness activities.

4. Ensures provision of top quality **policy advice services** to the Government and facilitation of knowledge building and management focusing on achievement of the following results:

- Identification of sources of information related to climate change issues. Identification and synthesis of best practices and lessons learnt directly linked to CCPF policy goals;
- Synthesis of lessons learnt and best practices in climate change;
- Sound contributions to knowledge networks and communities of practice;
- Organization of trainings for other Project Office staff on programme issues.

IV. Impact of Results

The key results have an impact on the success of CCPF programme within specific areas of cooperation. In particular, the key results have an impact on the design, operation and programming of activities, creation of strategic partnerships.

V. Competencies and Critical Success Factors

Corporate Competencies:

- Demonstrates integrity and professionalism by modelling the UN's values and ethical standards
- Promotes the vision, mission, and strategic goals of the UN and the CCPF programme
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability
- Treats all people fairly without favouritism

Functional Competencies:

Knowledge Management and Learning

- Promotes knowledge management in the participating UN agencies and a learning environment in the office through leadership and personal example
- In-depth practical knowledge of inter-disciplinary development issues
- Actively works towards continuing personal learning and applies newly acquired skills

Development and Operational Effectiveness

- Ability to lead strategic planning, results-based management and reporting
- Ability to lead formulation and monitoring of management projects
- Solid knowledge in financial resources and human resources management, contract, asset and procurement, information and communication technology, general administration
- Ability to lead business processes re-engineering, implementation of new systems (business side), and affect staff behavioural/ attitudinal change

Management and Leadership

- Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback
- Consistently approaches work with energy and a positive, constructive attitude
- Demonstrates openness to change and ability to manage complexities
- Ability to lead effectively, mentoring as well as conflict resolution skills
- Demonstrates strong oral and written communication skills
- Remains calm, in control and good humoured even under pressure
- Proven networking, team-building, organizational and communication skills

VI. Recruitment Qualifications

Education:	Master's degree in environmental sciences, economics, management, international relations, public policy or other relevant social sciences.
Experience:	→ Over 15 years of relevant experience at the national and/or international level. Extensive experience in research and policy-level analysis. Experience in design and monitoring of development projects and resource mobilization. → 7 or more years of senior-level management responsibilities of similar size and complexity.
Language requirements:	Excellent written and spoken English language skills