# Action Fiche II

## 1. IDENTIFICATION

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| Title/Number | **EU-China low carbon and environmental sustainability programme**<br>**(DCI-ASIE/2011/023-093)** | | |
| Total cost | Total programme cost: EUR 27.25 million<br>EU Contribution: EUR 25 million<br>Other: estimated at EUR 2.25 million | | |
| Aid method / Method of implementation | Project approach – *centralised direct management* | | |
| DAC-code | 41010 | Sector | Environmental policy and administrative management |

## 2. RATIONALE

### 2.1 Sector context

**Partner Government policies and strategies**

In the recently released 12th 5-year Plan, China has set stringent goals on energy saving and environmental protection. The new plan advocates an all out effort in these areas. China is implementing its National Climate Change Programme, which includes mandatory national targets for reducing energy intensity and the discharge of major pollutants, increasing forest coverage and increasing the share of renewable energy. At the United Nations Framework Convention on Climate Change (UNFCCC) Copenhagen Climate Change Conference, the Chinese government announced a series of important domestic commitments to reduce its carbon intensity per unit of Gross Domestic Product (GDP), improve its energy mix and increase its forest coverage. These targets are reflected in the 12th 5-year Plan that sets targets for reducing energy consumption per unit of GDP by 16 % and CO2 emissions per unit of GDP by 17 % (baseline 2010) by 2015. The country is also promoting the development of emission trading systems (ETS) as innovative mechanisms to tackle energy consumption and climate change.

'Accelerating' but 'balanced' urbanization is at the core of the Plan, with emphasis put on building resource-saving, environment-friendly, economically-efficient and socially harmonious cities. Over the last 30 years, China has recognized the important role of cities as "testing grounds" for trying out new policies and technologies. The concept of eco-cities has been a main focus of research and policy in China. Cities will be therefore at the heart of dealing with many of these challenges and the opportunities presented by the Plan, as the main drivers of energy and resource consumption but also the potential poles for innovation and pilots.

The 12th 5-year Plan has placed great importance on improving pollution control and moving towards a green economy. Accordingly, it stresses the importance to "develop circular economy and low carbon technologies, and accelerate environmental protection and ecological restoration". It sets reduction targets for major pollutants. It also sets targets for recycling of industrial waste, municipal sewage and municipal solid waste treatment and it identifies among other national priorities the provision of safe drinking water and the reduction of heavy metal pollution. China issued its first specific 5-year Plan on Heavy Metal Prevention and Control in February 2011. The

specific 5-year Plan on hazardous waste and contaminated sites is being drafted and may be finalised by the end of 2011.

**Problem Analysis**

China's environmental issues have a strong international dimension, reflecting regional/global economic and environmental interdependencies. China is now the world's leading emitter of greenhouse gases and even if the country will reduce its per unit productivity $CO_2$ release by 40%, it will still emit 50% of global emission in 30 years. China is promoting the development of ETS as innovative mechanisms to tackle energy consumption and climate change. However, currently China lacks the infrastructure and know-how to design and implement an efficient and effective ETS, including programmes. Moreover, the increased interest of China for market mechanisms has attracted the attention of many players active in the field, keen on sharing their experience. While it is important to recognise the validity of other forms of emission trading systems, there is a real risk that China will follow outdated advice or will not be drawing on lessons learned, which could delay progress.

China has become the world's largest urbanised nation and is still experiencing an unprecedented rate of urbanization that could well bring its urban population from the current 47.5% to 60% of its total population by 2030. This urbanisation has important implications on the state of the national and global environment as the investments/maintenance for infrastructure, services and products necessary for larger or new cities entail greater consumption of natural resources, represent a massive demand for energy (producing green house gases emissions during their lifecycle) and constitute the source of increasing pollution. Chinese municipalities are thus confronted with the twin challenges of addressing these complex environmental problems as well as to design and implement local strategies to deliver on the national environmental/energy- and carbon-intensity targets defined in the 12th 5-year Plan.

For a handful of selected Chinese cities, some initiatives are already being undertaken in cooperation with Chinese and international think tanks, EU Member States and international financial institutions. However: i) synergies and knowledge sharing among initiatives remain largely untapped; ii) accessibility of information on the key findings under these initiatives is quite scattered, and iii) many more Chinese cities may not get this type of advantageous partnerships for themselves. Hence, there is a clear need for centralised knowledge management and information through "platform" where information is accessible at national and EU (international) level and lessons learned can be discussed, where new approaches can be presented, and up-to-date advice provided.

In addition to contributing to global environmental challenges, such as climate change, China is also facing major domestic environmental challenges. Water pollution, mainly caused by extensive pollutants discharged from industrial, domestic, and agricultural sources, is a severe problem and has worsened despite efforts to control it, aggravating even further the water scarcity the country is facing. Provision of safe drinking water and sufficient water resources for agriculture and industry is identified as an important priority in the 12th 5-year Plan. Moreover, high levels of heavy-metal pollution have become a major public health hazard, with repeated reports of children with high levels of lead in the blood and villagers suffering from long-term exposure to heavy metals. There are also widespread concerns about contamination of food, particularly of rice. Five key industries have been identified as major causes of heavy metal pollution[1]. Adequate waste management also represents an increasingly important challenge for the country. Many cities and municipalities largely rely on landfills. Waste separation and

[1] The five industries include heavy non-ferrous metal ore mining (including associated minerals), heavy non-ferrous metal smelting, lead-acid battery manufacturing, leather and leather manufactured products, chemicals and chemical products.

recycling are not carried out effectively. Management of hazardous waste is another pressing issue that the government considers a priority. Cases of land or water contaminated from inadequate disposal practices or chemical spills continue to emerge.

In its Country Strategy Paper (2007-2013), the European Commission has pledged to assist China in its efforts to address global concerns over the environment, energy and climate change. This priority has been reflected in the Multiannual Indicative Programme (MIP) for 2011-2013, which states that projects should be developed to promote environmental sustainability in China and to support China in its transition towards a low-carbon economy and reduce its greenhouse gas emissions. The proposed Programme is fully conceived within this framework and envisages contributing to these objectives through the implementation of three distinct but mutually reinforcing projects in three thematic areas, i.e. emission trading system (ETS), sustainable urbanization, and water, waste and heavy metal pollution.

### 2.2 Lessons Learnt

**Emission Trading System**

The EU has gone through a process of establishing an ETS, building up the infrastructure and capacity across its 27 Member States, and is continuing to improve the harmonisation of approaches across the EU. The EU has experienced a number of teething problems which it has tackled successfully, and it is today in a position to share lessons on how to avoid problems and save precious time, in particular in terms of setting the right level of ambition or cap. It also has a number of practical tools that can be shared and adapted for Chinese purposes. The EU has also significant experience on cooperation with China in the field of climate change, through the policy dialogue established by the EU-China Climate Change Partnership (2005), the implementation of the EU-China Clean Development Mechanism (CDM) Facilitation Project and the Provincial Climate Change Programmes project.

**Sustainable Urbanization**

Europe possesses a wide range of expertise and knowledge among its institutions and its 27 Member States. It amounts to a wealth of experience that can be shared with Chinese central and local authorities. European and member state organizations and businesses are also important players in promoting green technology solutions, offering financing opportunities; they can or are already investing in eco-actions in China.

The EU has already built up experience in cooperating in urban issues with China, through the Asia-Urbs (2003-2006) and Asia Pro-Eco (2005-2009) programmes. The EU has also engaged in policy dialogues pertinent to urban environmental challenges. The EU-China Energy dialogue between the European Commission (Directorate general for Energy) and the National Energy Administration (NEA) has been running since 2005 and has facilitated the implementation of many joint activities and cooperation projects relating to energy issues. The European Commission is also exploring the possibility of engaging in a long-term partnership on Sustainable Urbanization with China. Regarded as a "green power" and a model for social inclusion (notably thanks to its 2020 strategy), the EU has already been invited by China's central authorities to contribute to the preparation of China's detailed implementation plans. Major municipal governments such as Shanghai, Nanjing or Qingdao have shown great eagerness to cooperate on sustainable urbanisation with their European peers.

**Environmental Sustainability**

Protection of water resources, including reducing water pollution, has been one of the cornerstones of European environmental policy since the 1970's. The European experience shows the need for coherent and comprehensive policies (e.g. Water Framework directive in 2000). The European waste policy aims in the first instance at preventing waste, then promoting its recycling

and reuse, and lastly, at improving the disposal of waste. European environmental legislation and policy also aim at limiting heavy metal pollution.

The environmental policy dialogue between the European Commission and the Chinese Ministry of Environmental Protection that started in 2003, lays good foundation for further cooperation. MEP is the implementing agency of the EU-China Biodiversity Programme (ECBP) and the EU-China Environmental Governance Programme, and a key partner of the EU-China River Basin Management Programme (RBMP). One of the lessons learnt from RBMP is that working with two ministries at central level is challenging and requires tremendous coordination efforts. Moreover, achieving effective results is made much more challenging when involving two ministries, with their different mandates and priorities. On the other hand, lessons from ECBP show that a vertical approach through pilot projects at local level can achieve more concrete results and can eventually have a real policy impact. Working through international organizations (as is the case in ECBP) can make project management cumbersome, affecting efficiency and impact. Experiences from the SWITCH Asia Programme on Sustainable Production and Consumption show that the procedure of call for proposals is an effective way of selecting demonstration projects and can encourage Chinese and European stakeholders to work together, building ownership and trust, and promoting exchange of knowledge and best practices.

### 2.3 Complementary Actions

**Emission Trading System**

The EU is already supporting actions that will contribute to the key inception work by looking at existing availability of data at sector level and looking at overall strategies for ETS across countries, hence providing a basis on which the proposed action can build and which can help prioritise the work. Examples include "Greenhouse Gas (GHG) emission trading system outreach to developing countries", "Partnership on carbon market readiness and the "EU-UNDP climate change capacity building programme".

In 2009, Germany and China have signed a Memorandum of Understanding on Combating Climate Change. The related activities are implemented within the framework of the "International Climate Change Initiative". Among others this includes a project on "Green House Gas Emission Monitoring" (2011 – 2013 with up to 2.3 million Euros). In addition, the project "Emission Trading System" will start in 2012. In general, the International Climate Change Initiative aims at supporting developing and emerging countries in their mitigation and adaptation measures.

In January 2011, the United Kingdom has signed a Memorandum of Understanding on low carbon development with China. One of the three central themes of the UK-China Low Carbon cooperation will be the use of market mechanisms together with low carbon planning and low carbon policy frameworks. The latest meeting of the China-France Committee on climate change has identified possible cooperation topics, including emission trading. Priorities and specific actions will be identified in the autumn of next year, taking also into account activities conducted by other donors including the European Commission.

The World Bank is presently carrying out a needs assessment for the spending of what is estimated to be USD 3 million from its "Partnership for Market Readiness" programme. This amount will be spent entirely on climate change market-based initiatives and a significant part of it on ETS development.

**Sustainable Urbanization**

The EU is supporting various projects in China relevant to sustainable urbanization: "From pilot to sustainable towns: Satellite cities and metropolitan governance" - a small pilot action that will be finished when the proposed action will start - and "URBACHINA", a research project under the RTD Framework Programme 7 aiming at analysing China's urbanisation trends for the next 40 years. An important cooperation project co-funded by the EU in China, with great potential for synergy with the proposed action and important for lessons learned, is the Europe-China Clean

Energy Centre (EC2). Presently, 9 SWITCH-Asia projects promoting sustainable consumption and production are on-going in China.

The most active donors are France, Germany, Sweden and the United Kingdom. The latest meeting of the China-France Committee on climate change has identified possible cooperation projects, including sustainable urbanisation. Germany has been involved already for a long time in sustainable urbanisation in China and works closely with the Ministry of Housing and Urban-Rural Development on low-carbon development. Focal areas of the cooperation include above others the retrofitting of houses to increase energy efficiency and related policies, a baseline study for new and existing buildings to be used as basis for the establishment of a carbon trading system. Sweden has created a demand-driven Centre for Environmental Technology, which aims at packaging Swedish knowledge and services in an innovative manner for tailor-made support to Chinese cities. In January 2011, the United Kingdom has signed a Memorandum of Understanding on low carbon development with China. Actions are focusing on the city of Chongqing and the provinces of Guangdong and Hubei.

Multilateral agencies' assistance targeting the whole of Asia and global initiatives include World Bank's Eco2 Cities initiative (ecological cities as economic cities), Asian Development Bank's 3R strategy (Reduce, Reuse, Recycle), the Cities Development Initiative for Asia (CDIA) (sustainable urban infrastructure investments), and the People's Republic of China-UNDP strategic partnership on sharing China's experience on sustainable, low-emission urban development with other developing countries. The Swiss Government is funding a Low Carbon Cities project. The project represents an innovative bottom-up action supporting a limited number of 'committed' cities to meet their carbon emissions targets.

**Environmental Sustainability**

The EU China River Basin Management Programme sets a good platform on river basin management, advising on policy, best practices and on the EU Water Framework Directive.

The EU China Environmental Governance Programme focuses on improving environmental governance through public participation and the promotion of corporate responsibility.

The EU-China Biodiversity Programme contributes to improving the policy, planning, regulatory and institutional framework for biodiversity conservation and development. Having been involved in 18 field projects it has produced tangible results that are recognised locally and nationally and that have raised awareness of biodiversity conservation.

The Italian Ministry of Environmental Protection runs a project supporting China in eliminating environmentally hazardous and ozone depleting compounds such as Persistent Organic Pollutants (POPs), chlorofluorocarbons (CFCs) and methyl bromide. DFID (UK) has been supporting two projects on Rural Water Supply and Hygiene promotion in pilot villages since 2007 and a water demand management programme with a multi-sectoral approach. Germany has signed a Joint Declaration with the Ministry of Environmental Protection in 2010. Within this Sino-German Strategic Partnership the further cooperation in main environmental areas has been agreed e.g. on monitoring, biological conservation, water resource management, chemical management and installation safety, Low carbon product labelling, soil remediation as well as air and waste treatment. In addition, Germany has been supporting training programmes for the licensing of companies rehabilitating contaminated sites. Germany is also supporting the Ministry of Environmental Protection and especially the China Council for Environment and Development with expertise to its Mercury Management Task Force within the framework of the Environmental Policy Programme (2007 – 1012).

Multilateral agencies' support includes United Nations Environment Programme (UNEP) assistance on capability building in post-earthquake construction in Sichuan Province by introducing a methodology on contaminated sites remediation as well as risk assessment and emergency response in damaged chemical plants.

### 2.4 Donor Coordination

**Emission Trading System**

During meetings with representatives of the World Bank, UK, Germany and other donors, the need for mutual coordination has been discussed. It is expected that some of the other donors' activities will have been already started by the time this EU project starts, allowing for the project to learn from any on-going activities at the time and avoid duplication.

**Sustainable Urbanization**

Most of the above mentioned actions of EU Member States have a limited budget and, therefore, a narrow scope. There are some overlaps in the thematic areas of intervention, but those actions are mostly implemented in different Chinese cities and do not present a problem as the scale of urbanization and the environmental challenges associated with it are simply enormous. The results of a recent EU Delegation questionnaire sent to all Member States Embassies on the value for the EU to engage in a long term partnership on urbanization has highlighted the need for a more systematic and coordinated European approach to sustainable urbanization as well as the need of sharing best European practices. This coordination and sharing of best practices/experiences will be pursued by the proposed project, particularly with the set-up of an Advisory Group further described in the section below on project implementation.

**Environmental Sustainability**

The EU Member States all have their own procedures for co-ordinating their projects with the beneficiaries and between each other. Most Member States have limited budgets. Some Member States respond to ad-hoc Chinese requests for technical assistance by liaising their countries' experts or institutes with Chinese counterparts.

## 3 DESCRIPTION

### 3.1 Objectives

The overall objective of the Programme is to support China in meeting the environmental, energy- and carbon-intensity targets defined in the 12th 5-year Plan.

Three specific objectives will be pursued through three distinct but mutually reinforcing projects. The three projects will work in parallel in three key thematic areas, i.e. Emission Trading System (ETS), Sustainable Urbanization, and Water, Waste and Heavy Metal Pollution.

**Emission Trading System (Project 1)**

The specific objective for ETS is to assist China in its efforts to meet its emission reduction targets and low carbon development by designing and implementing successful emissions trading pilot/s that lead over time to an effective and nation-wide policy and system..

**Sustainable Urbanization (Project 2)**

The specific objective for Sustainable Urbanization is to assist Chinese cities in adopting energy and resource efficient ecological solutions by sharing with China experiences in European sustainable urbanisation and other relevant policies.

The main target groups for project 2 are government decision makers and policy makers at the municipal (in particular Mayors), provincial and central levels in China (particularly the Ministry of Housing and Urban-Rural Development and its affiliated institutions/associations) as well as practitioners in the domain relevant to the project.

**Environmental Sustainability (Project 3)**

The specific objective for Project 3 is to support the Chinese authorities in their effort of achieving environmental sustainability by reducing water and heavy metal pollution and implementing sustainable waste policies.

The project will include four complementary components: (1) improvement of water quality; (2) sustainable solid waste management; (3) heavy metal pollution prevention and control and (4) a horizontal policy support and networking mechanism to synthesize results for policy formulation and dissemination.

### 3.2 Expected Results and Main Activities

**Project 1: Emission Trading System (pursuing specific objective 1)**

***Expected results*** *(not in order of importance)*
*Result 1* Development of provincial and/or municipal action plans and road maps for the establishment of provincial ETS for a selected number of pilot areas.

*Result 2* Development of capacity building activities in China, especially in selected pilot province/s for ETS design and implementation. The focus areas for capacity building will be defined taking into account the current state of implementation of China's ETS at the start of the project. These areas would include but are not limited to:

- 2.1 Provision of policy know how and modelling capacity in the sectors under the ETS for the establishment of emission baselines, setting up of a cap, management of the allocation process, market regulation, criteria for offset use;
- 2.2 Energy and emissions data research and analysis in sectors and sources covered by the pilot/s; Development of methodology for initial GHG emissions inventory and projections of business-as-usual emissions growth for sectors covered by the pilot ETS;
- 2.3 Establishment of customised monitoring and reporting rules or guidelines;
- 2.4 Supporting the setting up data management systems;;
- 2.5 Establishing regulatory systems to ensure compliance by companies, including verification methodology development, verifier licensing and testing procedures, effective penalties for non compliance;
- 2.6 Supporting the development and management of an ETS registry;
- 2.7 Laying the groundwork for a centralised transaction log linking the regional registries.

***Activities***
In order to achieve the above mentioned results, activities will be defined taking into account the current state of implementation of China's ETS at the start of the project and might include but are not limited to:

1. Provision of relevant information, including translations of relevant and selected EU ETS guidelines and data into Chinese so that they can reliably inform Chinese policy, evaluations and exchange of know-how in EU practices (past and present) and expert exchanges to allow better understanding of the reasons for policy choices in the EU and relevance to policy development in China.

2. Explaining the EU registry system rules; consultation with EU registry experts. Development of registry (customized IT system and rules) to record verified emission reports from installations, to track ownership of emission allowances and to track compliance.

3. Delivery of training courses to key stakeholder and training of trainers, workshops and seminars.

4. Production of policy analysis and research study on specifically selected issues related to the challenges, opportunities and impacts of China's pilot ETS.

5. Organisation of working groups linking EU and Chinese experts solving specific problems.

6. Assisting in the development of Chinese ETS monitoring, reporting and verification guidelines and organization of training, workshops on these guidelines. Assessing and improving the structures and capacity for third party verification, setting up peer support process, increase understanding for the need for robust enforcement.

7. Expert workshops, job placement, and scholarship for study in Europe to increase the modelling capacity needed to establish baseline emissions and projections needed for cap setting and other technical capacity for ETS management.

It will be important in the inception stage to review work done to date by other donors, and to take stock of the level of policy development and level of knowledge of key Chinese decision makers and other stakeholders.

**Project 2: Sustainable urbanization (pursuing specific objective 2)**

***Expected results*** *(not in order of importance)*

*Result 1.* The Ministry of Housing and Urban-Rural Development is supported in preparing eco-low carbon city management tool boxes for local governments. Tool boxes could include guidelines, standards, lessons learned from low carbon eco-city pilots, etc.

*Result 2.* One "EU-China pilot low carbon eco-city" supported in China (the city will be identified according to criteria to be agreed by the Ministry of Housing and Urban-Rural Development and EU). The pilot could: i) demonstrate best approaches to low carbon eco planning, ii) serve as testing ground for policy innovations (e.g. energy performance labelling for buildings), iii) test the functionality of the support mechanism. The EU contribution may be utilised towards attracting funds for the development of the pilot (maximum 10 % of total EU contribution).

*Result 3.* Improved exchange of information and knowledge sharing between municipalities in China and between Chinese and European cities (and between different actors/donors). This will also include the setting-up of cooperation schemes between EU cities and Chinese cities and/or their groupings and representatives.

*Result 4.* Strengthened capacities of municipalities to plan, identify, implement and monitor low carbon and ecological solutions (sectoral and integrated solutions).

*Result 5.* Municipalities' potential to finance eco/low carbon-solutions is improved, including knowledge on innovative financial schemes.

*Result 6.* Visibility/dissemination of project results both within China and regionally or internationally are ensured and maximized.

*Result 7.* An appropriate support mechanism enhancing networking between European and Chinese cities and advising and assisting Chinese municipalities on urban ecological/low carbon planning & management is implemented.

- The support mechanism should act as an overall facilitating and coordinating unit that, depending on its evolution, could become sustainable over time. It will rely on a bilingual virtual **knowledge hub/platform** based on newest IT technologies and on a physical **secretariat**. The mechanism should have the following characteristics and/or be able to perform the following tasks: (a) Be demand driven and service orientated, able to respond to the requests raised by cities and to provide advice, recommendations and directions to address the various urban environmental challenges in an integrated manner (a one-stop-shop for eco and low carbon cities services ); (b) Foster the sharing and dissemination of knowledge and information, including best practices and case studies (e.g. smart grids and buildings, intelligent transport systems etc.) on eco- and low-carbon cities, and share information on existing pilots and demonstration projects; (c) Facilitate matchmaking of Chinese cities with potential partners both in Europe and in China and networking among

cities/their groupings; (d) Ensure contacts and coordination with relevant ongoing actions and projects (of the EU, EU Member States and others); (e) Establish a community of practitioners , possibly supported by a range of tools (e.g. a web based forum; net-working events, etc).

- Sustainability of the hub will be promoted through it being largely virtual (i.e. not requiring substantial resources), but more importantly, through its connection to the now developing EU-China Strategic Partnership on Urbanisation.

***Activities***

The project will carry out a wide range of activities to achieve the expected results. Some activities are indicatively listed below:

*Activities to achieve result 1.* Technical support to the Ministry of Housing and Urban-Rural Development in compiling and selecting appropriate tool boxes for local governments through providing advice and sharing of European policies, standards, guidelines.

*Activities to achieve result 2.* Assist in the setting-up of the pilot and in attracting additional financing and competences; allocate limited finance/human resources to preliminary technical studies for the deployment of integrated solutions; provide advice and capacity building in low carbon eco city planning and management.

*Activities to achieve result 3.* Assist municipalities towards increasing networking with other European and Chinese cities. This could also include (i) technical support for the conclusion of cooperation schemes between EU and Chinese cities and/or their groupings and representatives (e.g. the Covenant of Mayors) and (ii) support in the organization of the annual EU-China Urban Forum which may be launched in 2012 and which will bring together Mayors, private sector, practitioners, researchers, etc.

*Activities to achieve result 4.* Assist municipalities in applying eco-low carbon principles to urban planning, design and management. This could include: (a) Providing support for the inclusion of low-carbon eco-city concepts in the curriculum used for training Mayors, (b) Providing guidance and capacity building for developing baseline assessments, forecasts, eco/low-carbon development action plans, sectoral plans, performance tracking systems and support to review/enhance the institutional, regulatory, legal and fiscal systems (for this kind of activities, the support mechanism will as much as possible enhance matchmaking between potential European/Chinese partners); (c) Providing guidance and capacity building in identifying, assessing, planning, implementing and monitoring suitable solutions (e.g. smart grids and buildings, intelligent transport systems etc.. Also for this kind of activities the support mechanism will as much as possible enhance matchmaking with potential European/Chinese partners).

*Activities to achieve result 5.* Assist municipalities in developing financing strategies, feasibility studies and formulation of financing and investment proposals to implement sustainable solutions. This could include leveraging private and public investment, exploring new financing instruments, better coordination and leveraging of investments undertaken by EU Member States, European financing institutions (e.g. European Investment Bank), European companies etc.

*Activities to achieve result 6.* The project will undertake visibility and promotion activities to ensure that all its actions are adequately known. This could include: develop/implement a public relations strategy; engage with media; awareness events and outreach material; web based forum; support to awards systems; set-up a community of practice.

*Activities to achieve result 7.* Setting-up of a secretariat with dedicated staff; setting-up and maintenance of the IT platform using the most appropriate technology (also making links or building on other relevant experiences/projects); testing and promoting the platform through media exposure; development of knowledge products (e.g. policy briefs, technical papers, multimedia products, etc); elaboration of databases (e.g. alumni; experts; technology/solutions, etc.); formulation of case studies.

**Project 3: Environmental Sustainability (pursuing specific objective 3)**

***Expected results*** *(not in order of importance)*

*Result 1:* Improvement of the surface water, groundwater and drinking water quality in pilot areas through reduction of pollution discharge. (Component 1)

*Result 2:* Improvement of waste management in pilot areas through an integrated sustainable waste management approach to achieve more waste reduction, reuse, recycling and recovery, thus minimizing the amount of waste to be disposed of. (Component 2)

*Result 3:* Heavy metal pollution is reduced through support to national and local policy and institutional capacity and through pilots on policy implementation at local level. (Component 3)

*Result 4:* An appropriate support mechanism to synthesize results from components 1 to 3 for policy support, networking and dissemination. (Component 4)

*Activities*

Bearing in mind the fact that this component would be implemented through grants, the description of activities below is of an indicative nature.

The proposed activities may include : policy/regulatory formulation support, policy implementation at pilot areas, pilot demonstration projects using best available technologies and best environmental practices, studies, provision of expertise, capacity building, training courses, study tours, seminars, information-sharing, dissemination activities, awareness-raising activities, etc.

**3.3 Risks and Assumptions**

The Programme assumes that the Government of China remains committed to achieve the environmental, energy and carbon efficiency targets set out in the 12th 5-year Plan. The programme also assumes effective communication and cooperation among the various stakeholders in China and the program implementing teams, between the central government and local authorities. The projects also aspire to play a catalysing role with respect to coordination among EU Member States and other relevant donors.

As to timeliness, and based on previous experience, China's commitment to specific policy goals means that these will probably be achieved with no delay. Accordingly, the EU Delegation is in close contact with the relevant policy makers and is closely following policy developments and the EU is aiming for the actual start of the programme by beginning of 2013 at the very latest.

In relation to the risk of capacities of the beneficiary agencies and/or of collaboration of the beneficiary agencies not being at the expected level, the three projects will set-up feasible and realistic work plans in close collaboration with the beneficiaries. If necessary, further negotiations with the Government of China will be conducted on its contribution to the program.

**3.4 Crosscutting Issues**

A number of cross-cutting issues related to social, political and environmental concerns will underlie the programme's efforts and work within each of the three projects. **Good governance** will be addressed since the projects will contribute to enhancing the capacity of the government to effectively manage its resources and implement sound policies, particularly by focusing project efforts on improving enforcement of relevant legislation at local level. **Environmental sustainability** will directly be addressed as the projects contribute to reduce pollution, green house gases emissions and improve the efficiency in the use of resources. **Poverty alleviation** will also be tackled. By promoting a better environment both in the urban and rural areas, the most vulnerable sections of the society will suffer less from the problems linked to degradation of natural re-

sources and of the environment (health effects, agricultural production, quality and availability of water, etc.). The promotion of a green economy will create new jobs.

### 3.5 Stakeholders

The proposed programme will benefit a number of key stakeholders.

**Project 1 – Emission Trading System**

- The **National Development and Reform Commission** (NDRC). The NDRC - and at the provincial and municipal level the local DRCs - will gain important experience and have increased confidence in the use of emissions trading, which if well designed can make a significant contribution to meeting China's own domestic emissions reduction targets.
- Chinese think tanks and academics, such as the **Energy Research Institute,** on which NDRC often relies for analysis and expertise, will enhance its knowledge working with EU partners on ETS and will be better placed to inform the policy making process.
- Other Chinese government institutions that should be involved in initial data inventory and in verification infrastructure development, possibly the **Chinese Statistical Office and the Ministry of Environment.**
- **Provincial and municipal governments**, who will increase their understanding of the role of markets in climate change mitigation policy, and who may benefit from the redistribution of revenues under a Chinese ETS if designed to make use of this possibility.
- **Chinese companies** covered by the EU ETS will face caps or limits on their greenhouse gas emissions, but would be able to meet these under a flexible mechanism that allows them to trade or to abate as most appropriate for them, leading to the development of a carbon market in China.

The involvement of other government stakeholders besides the NDRC could be a critical issue and needs careful thought and sensitive discussions with NDRC.

Other stakeholders and the private sector will be involved in and benefit from certain specific activities and eventual outcomes of the project:

- Clean technology and know how providers will see increased demand for goods and services as the price on carbon through ETS in China encourages investment in measures to reduce emissions.
- Designated operational entities, who may be possible candidates as verification bodies within an ETS.
- Chinese financial sector intermediaries and brokerages will see increased demand for services.

**Project 2 – Sustainable Urbanization**

- Chinese municipalities (particularly Mayors and relevant municipal departments in charge of environmental issues) will benefit from: i) the assistance provided by the support mechanism in terms of capacity building, technical assistance, information sharing; ii) cooperation schemes between EU cities and Chinese cities and/or their groupings and representatives; as well as iii) increased access to relevant knowledge, financing opportunities.
- Ministry of Housing and Urban-Rural Development will be the main partner of Project 2 as it is responsible for the design, implementation and monitoring of urban policies and plans as well as for some specific urban environmental/energy issues. The Ministry has recently set up an interdepartmental Task Force on low-carbon eco-city development un-

der the leadership of the Vice Minister. The Ministry will be supported in preparing eco-low carbon city management tool boxes for local governments as well in advising and assisting Chinese municipalities on urban ecological/low carbon planning & management.

- Institutions affiliated to the Ministry of Housing and Urban-Rural Development (such as the National Academy for Mayors of China and the China Association of Mayors), who play a key role in training local administrators and in strengthening networking among them.

- Chinese practitioners will enhance their knowledge working with EU partners on promoting environmental sustainable solutions and will also see their networks reinforced

**Project 3 - Environmental Sustainability**

- The Ministry of Environmental Protection and other relevant authorities will gain experiences on policy implementation and enforcement at local level through demonstration projects on water pollution, waste management and heavy metal pollution control.

- Local government agencies, especially municipal governments and environmental protection bureaus, water protection bureaus, will enhance their capacities in policy enforcement and assessments.

- Research institutions and academic organizations will enhance their knowledge and capability through exchanges with EU institutes on best practices of pollution control including assessment and prevention.

- Public awareness will be enhanced on water quality, waste separation and recycling, environmental and health impact of heavy.

- Chinese industry will learn about the best available technology used in Europe.

- Chinese organisations involved in implementing pilot projects will gain valuable experiences from a transfer of knowledge by working with European/ Chinese partners.

## 4 IMPLEMENTATION ISSUES

### 4.1 Method of Implementation

Direct centralised management.

The programme will be implemented by the European Union, through its Delegation to China and Mongolia. A Financing Agreement will be signed between the European Union and the Government of the People's Republic of China through the Ministry of Commerce. All contracts and payments are made by the European Union on behalf of the Beneficiary.

The three projects under the programme are mutually reinforcing. To facilitate this, a coordination mechanism shall be put in place. This mechanism will involve the EU Delegation and the Ministry of Commerce to promote and supervise beneficial interconnections and coordinate the management of the three projects. This coordination mechanism will also assist in risk management.

**Project 1 – Emission Trading System**

The project will be implemented by the European Commission, through its Delegation to China and Mongolia via a service contract for technical assistance (TA) to be concluded following an international restricted tender procedure. The project will be coordinated and managed by the following bodies:

(a) *Project Steering Committee (PSC)*, shall be co-chaired by the Ministry of Commerce and by the Delegation of the European Union. Membership will include representatives from the EU and the Government of China. The role of the PSC will be to oversee and validate the overall direction and policy of the project and to co-ordinate between all members and other organisations or institutions involved in the project.

*(b) Project Task Force (PTF)*, will be established by the National Development and Reform Commission, together with the Technical Assistance Team, it will exert the function of the Secretariat. The PTF will be headed by a full-time Chinese Project Director appointed by the National Development and Reform Commission (NDRC), and approved by the Ministry of Commerce and by the EU. The PTF is responsible for the day-to-day covering of the technical, administrative and operational aspects related to project co-ordination, implementation and management. The Technical Assistance Team (TAT), established through a service contract to provide technical assistance to the PTF, will work under the leadership of the Project Director of the PTF, but will be legally and financially accountable to the EU.

(c) *International Advisory Group (IAG),* set up by NDRC with the assistance of the technical assistance team as a network of experts and composed of participants from the Chinese administration, the EU, relevant EU-funded cooperation as well as the international donor community and other international/European actors.

**Project 2 – Sustainable Urbanization**

The project will be implemented by the European Commission, via the EU Delegation to China and Mongolia, through a service contract for technical assistance (TA) to be concluded following an international restricted tender procedure. The project will be coordinated and managed by the following bodies:

(a) *Project Steering Committee (PSC),* shall be co-chaired by the Ministry of Commerce and by the Delegation of the European Union. Membership will include representatives from the EU and the Government of China. The role of the PSC will be to oversee and validate the overall direction and policy of the project and to co-ordinate between all members and other organisations or institutions involved in the project.

*(b) Project Task Force (PTF)*, will be established by the Ministry of Housing and Urban-Rural Development, together with the Technical Assistance Team, it will exert the function of the Secretariat. and the PTF will be headed by a full-time Chinese Project Director appointed by the Ministry of Housing and Urban-Rural Development, and approved by the Ministry of Commerce and by the EU. The PTF is responsible for the day-to-day covering of the technical, administrative and operational aspects related to project co-ordination, implementation and management. The TAT, established through a service contract to provide technical assistance to the PTF, will work under the leadership of the Project Director of the PTF, but will be legally and financially accountable to the EU.

(c) *International Advisory Group (IAG),* set up by the Ministry of Housing and Urban-Rural Development with the assistance of the TAT, as a network of experts and composed of participants from the Chinese administration, the EU, relevant EU-funded cooperation (e.g. the Europe China Clean Energy Centre) as well as the international donor community and other international/European actors.

**Project 3 – Environmental Sustainability**

The Delegation will launch an international call for proposals. The action will be implemented through grant contracts to be concluded between the European Union and grantees. A grantee is required to form a balanced partnership[2] consisting of at least one EU and one Chinese non-profit organization, public institution and/or association, which will ensure closest cooperation among European and Chinese institutes on environmental issues and introduce best EU experience and know-how for demonstration in China. Ownership and sustainability will also be addressed during the Call for Proposal process.

A Project Advisory Committee (PAC) shall be set up to oversee and provide policy guidance for this project. The PAC shall be co-chaired by the Ministry of Commerce and by the Delegation of the European Union. Membership will include representatives from the EU and the Government of China. It will play a key role in disseminating project outputs and recommendations to high level policy makers and other relevant bodies in the field of water, waste and heavy metal pollution prevention and control. A horizontal component is designed to maximize project impact through synthesizing results and lessons learnt, feeding into policy framework, as well as into networking and dissemination.

### 4.2 Procurement and Grant Award Procedures/Programme Estimates

1) Contracts. All contracts implementing the action must be awarded and implemented in accordance with the procedures and standard documents laid down and published by the European Commission for the implementation of external operations, in force at the time of the launch of the procedure in question. Participation in the award of contracts for the present action shall be open to all natural and legal persons covered by Development Cooperation Instrument (DCI) Regulation.

2) Specific rules for grants. The essential selection and award criteria for the award of grants are laid down in the Practical Guide to contract procedures for EU external actions. They are established in accordance with the principles set out in Title VI 'Grants' of the Financial Regulation applicable to the General Budget.

### 4.3 Budget and Calendar

The total project cost is estimated at EUR 27.25 million, of which EUR 25 million shall be financed from the general budget of the European Union.

Details per project are as follows:

| Categories | EU contribution EUR | Other contributions EUR | Total EUR |
|---|---|---|---|

[2] "Balanced" should be understood as 1/ the composition of the partnership should ensure on the one hand a comprehensive and adequate representation of Chinese challenges and requirements in the relevant sectors, on the other hand, facilitated access to the most appropriate European expertise in addressing the targeted issues. 2/ the organisation of the partnership must reflect and optimise each member's added value.

| | | | |
|---|---|---|---|
| **Project 1 – Emission Trading System**<br>**Services** | **5 000 000** | **0** | **5 000 000** |
| **Project 2 – Sustainable Urbanization**<br>**Services** | **9 400 000** | **0** | **9 400 000** |
| **Project 3 – Water, Waste and Heavy Metal Pollution**<br>**Grants** | **9 000 000** | **2 250 000** | **11 250 000** |
| **Monitoring, External Evaluation & Audit** | **1 000 000** | | |
| **Contingencies*** | **600 000** | | **600 000** |
| **Total** | **25 000 000** | **2 250 000** | **27 250 000** |

* The European Union's contribution to the "Contingencies" heading may be used only with prior agreement of the Commission.

The foreseen operational implementation as from signature of the Financing Agreement for the three projects is 72 months.

**Contribution in Kind**

In kind contributions will be provided by the Government of the People's Republic of China and further detailed in the Financing Agreement.

**Project 1 – Emission Trading System**

An international restricted call for tender is expected to be launched in June 2012 after signature of the Financing Agreement with the Government of the People's Republic of China. The project will be implemented through a service contract for an indicative amount of **EUR 5 million**.

**Project 2 – Sustainable Urbanization**

An international restricted call for tender is expected to be launched in June 2012 after signature of the Financing Agreement with the Government of the Peoples Republic of China. The project will be implemented through a service contract for an indicative amount of **EUR 9.4 million**.

**Project 3 – Environmental Sustainability**

An international Open Call for proposal is expected to be launched in May 2012 after the signature of the Financing Agreement with the Government of People's Republic of China. The indicative amount to be allocated for the call for proposals is **EUR 9 million**.

Grantees are expected to provide co-financing contribution which should not be lower than 20% of the total budget proposed for the grant (at least EUR 2.25 million if the EU grant is EUR9 million).

The size of the grants will be from EUR 0.5 to 1 million. The grant contracts will have a period of implementation of 36 months.

### 4.4 Performance Monitoring

Day-to-day technical and financial monitoring will be a continuous process of the three projects. The responsibility for monitoring lies with the European Union Delegation to China as well as with the contractors. Monitoring will be the responsibility of the programme/project management, the European Commission and China. It will be based i.a. on the annual activity forecasts and indicators on the purpose, results and activity levels.

The Commission may carry out Results Oriented Monitoring (ROM) via independent consultants, starting from the sixth month of project activities, which will be finalised at the latest 6 months before the end of the operational implementation phase.

### 4.5 Evaluation and Audit

The action will be subject to a mid-term evaluation to assess overall progress and to identify, where appropriate, adjustments. A final evaluation will assess overall performance, outputs compared against initial targets, impacts achieved and likely to be achieved relevance to the national context and institutional and financial sustainability and management efficiency. Possibly, an ex-post evaluation after 10 years of operation could be also envisaged.

In addition to the contractual requirements in terms of audit, the European Commission will reserve the right to conduct one or more external audits during the implementation period.

An annual external audit of the accounts of the action produced by an approved auditor will be required.

### 4.6 Communication and Visibility

Public relations and awareness raising activity plans will need to be designed and implemented as part of the contracts to increase the visibility and thus the effectiveness of the project. They will also serve to give to the European Commission co-operation maximum visibility. The programme's three projects have to follow the latest EU visibility guidelines (currently of July 2011): http://ec.europa.eu/europeaid/work/visibility/index_en.htm

The implementing bodies will be required to pay particular attention to the promotion of the project at exhibitions, conferences and similar events, as well as in all public and official written material connected with the project.

In order to preserve the necessary coherence between the activities of the present project and those activities undertaken by other donors in the sector, regular meetings will take place with all interested parties.