

**Strategy for Clean Air and Energy Cooperation**  
**between**  
**The Environmental Protection Agency of the United States of America**  
**and**  
**The State Environmental Protection Administration of the People's Republic of China**

**I. Goal**

The goal of this joint United States (U.S.) and China strategy is to enhance the effectiveness of collaborative efforts to reduce the emissions intensity (air pollution and greenhouse gases) of China's rapidly growing economy. Implementation of the joint strategy is intended to address China's severe local and regional air pollution problems and reduce emissions that contribute to transboundary air pollution, as well as regional and global climate impacts. Reducing emissions intensity is expected to lead to local, regional and global improvements in public health and environmental air quality.

**II. Strategic Approach**

To achieve this goal, the U.S. Environmental Protection Agency (EPA) and the State Environmental Protection Agency of China (SEPA) plan to develop and implement a coordinated strategic framework for cooperation on matters related to air quality management, public health, clean energy and transportation. Strategically linked projects under this framework are expected to be more effective than uncoordinated individual projects in achieving air quality management and public health goals. This should lead to improved effectiveness of the EPA programs with SEPA and other Chinese partners, and should allow for greater leveraging of other co-sponsors

**III. Principles**

The joint strategy will incorporate several principles that have proven critical to success in past cooperative efforts:

*Build on Past Cooperation:* EPA and SEPA recognize the valuable results that have been achieved under a broad range of joint projects. As these projects continue and lead to follow-on activities, EPA and SEPA will identify opportunities to coordinate these projects around the objectives and directions outlined in this strategy.

*Linkages.* Implementing a strategic approach is intended to illustrate how air quality management and clean energy and transportation programs can work in concert to reduce local and regional air pollution and, in many instances, benefit global climate. Where appropriate, EPA and SEPA may explore interrelationships between air quality management and other environmental concerns (e.g. toxic substances and water quality). This approach is intended to achieve near-term environmental results and demonstrate approaches and coordinated programs that can be transferred to other cities and provinces in China.

*Consider Risk-reduction and Cost-benefit in Project Design:* EPA and SEPA plan to target their efforts, and work to catalyze larger domestic and internationally supported efforts, to reduce

energy and emissions intensity from sources that pose significant public health and environmental risks and offer cost-effective opportunities for reductions.

*Foster Partnerships:* EPA and SEPA recognize that their resources are limited and that successful implementation of this strategy requires collaboration with other institutions, international organizations, international financial institutions, and other governments. EPA and SEPA will give particular attention to involving the emerging private sector in China in the implementation of this strategy.

*Strengthen Capacity to Disseminate Environmental Management Expertise:* EPA and SEPA recognize that dissemination of air quality management lessons and experience will require cooperation with institutes and organizations that are capable of adapting and institutionalizing this knowledge in China. The strategy may include cooperation and partnerships to enhance the capacity of these organizations to achieve this long-term result.

#### **IV. Strategy Implementation**

The EPA-SEPA framework for cooperation is initially intended to result in the coordination of activities in two directions that address the goal of this joint strategy: 1. *Strengthening Regional Coordination of Clean Air and Energy Management*; and 2. *Prioritizing Source Categories Affecting Air, Environment and Public Health*.

Through these two directions the strategy is expected to strengthen linkages and coordination among many of the existing SEPA-EPA partnership projects. The careful evaluation of each project within the larger framework is intended to improve the effectiveness of many of the individual projects, and of the program as a whole. In addition, opportunities for coordination with other US-China projects are expected to be identified and, where appropriate, discussed with partners.

Coordination is intended to enhance the scientific and analytical basis for broad air quality management strategies in China, developing and applying information and tools at the urban and regional scale, both nationally and for specific sectors. This is expected to include the evaluation of the potential of clean energy and transportation measures at local, regional and national levels in reducing air pollution, environmental and public health impacts.

##### 1. Strengthening Regional Coordination of Clean Air and Clean Energy Management

Where possible, EPA and SEPA plan to focus significant efforts on developing capacity to design and implement air quality management strategies, including clean technology programs, in the greater Beijing region. This is intended to allow demonstration of the effectiveness of coordinated capacity building, analysis, policy reform and technology programs in achieving the ambitious goals set for Beijing for the 2008 Olympics. This may include partnerships with other ministries, local government institutions and other stakeholders. Priority should be given to activities that address the problems of particulate matter, ozone, and their precursors from key sectors including energy, transportation, and industry. A key element of this approach is the development of mechanisms for transferring expertise, tools, and management capacity to other

key regions, provinces, and cities in China. EPA is expected to provide technical assistance, fostering coordination and facilitating the major elements of the plan and helping China leverage investments in technologies and expertise.

Among other things, this effort is intended to:

- Adapt and apply advanced monitoring, measurement, and modeling tools to characterize current and future air quality and emissions (including emissions from stationary, area, and mobile sources, as well as greenhouse gases);
- Identify options for reducing and controlling emissions, including low-cost controls, pollution prevention, clean energy technologies, clean fuels, clean vehicles and transportation management measures;
- Support SEPA efforts to implement total emission control goals through such mechanisms as regulations, policies, permits and market-based approaches such as emissions trading;
- Adapt tools and build capacity for information collection and assessment of health, environmental and economic costs and benefits of control and management options;
- Support SEPA efforts to strengthen regulations, institutions and coordination among institutions at the national, provincial and local levels to enhance effectiveness of air quality management;
- Support SEPA and local air management authorities in efforts to coordinate clean air strategies with other planning and implementing agencies responsible for related areas, such as transportation management, energy programs and government investment;
- Develop compliance and enforcement capabilities as well as the capacity to assess the effectiveness of voluntary initiatives;
- Encourage investments by the private sector and public-private partnerships in pollution control and clean energy technologies;
- Improve public outreach and dissemination of information through the development of such tools as an air quality index, and publicizing the environmental benefits of transportation and clean energy choices; and,
- Work with other partners (e.g., Clean Air Training Network for Asia) to develop support for wide dissemination of tools, information and approaches to other cities and regions in China and development of capacity to identify and implement cost effective air quality management programs. This effort could include one or more national training workshops as well as focused capacity building and “training of trainers” in selected cities and subregions over time.

## 2. Prioritizing Source Categories Affecting Air, Environment and Public Health

EPA and SEPA expect to cooperate to enhance the scientific basis and decision support capabilities for broad air quality management strategies in China. This is intended to support prioritizations across a range of sources and pollutants, and reflecting the interaction of air pollution and mitigation measures at the local, regional national and international levels. The initial phase of this cooperation will be organized around a national technical assessment of current air pollution sources and projected trends over the next 20 years. This assessment is expected to compare specific source categories and pollutants related to ambient and indoor air quality in terms of: 1) their impact on health and the environment (including local regional and

global concerns), 2) expected growth rates and future impact, 3) the availability and cost of cleaner technologies and reduction measures, and 4) relevant domestic and international programs. This assessment is intended to be carried out with participation of leading technical experts, and should include consultation with representatives of key ministries and other stakeholders.

The technical assessment is expected to attempt to draw on existing studies and data rather than collecting new primary information. The goal is synthesis of what is known rather than research to improve detailed understanding. It is expected to include explicit consideration of opportunities and measures which produce multiple environmental and health benefits, including addressing a range of local and regional air pollutants as well as greenhouse gases, persistent organic pollutants (POPs) and mercury. It is intended to provide China and its partners with a basis for allocating resources and prioritizing investments. Subject to the resources available to conduct the assessment, this effort may include:

- Projections of key source categories such as the power, petrochemical, transportation and construction sectors that are likely to grow rapidly, and opportunities for cost effective interventions to promote cleaner technologies to avoid large increases in emissions;
- Evaluation of existing sources of air pollution that offer substantial, cost-effective opportunities to improve public health and the environment in the near term. These include, for example, indoor air pollution, coal-mine methane recovery, and air pollution from a large number of existing, inefficient coal-fired industrial and commercial boilers, where reductions can ease current air pollution burdens and offset emissions from a rapidly growing economy;
- Consideration of the current EPA partnerships with SEPA and other Chinese institutions to promote clean energy and transportation in the context of the overall air quality management agenda. This is expected to include estimating the benefits of widespread application of selected clean energy, transportation and fuels strategies on future air quality.
- Evaluation of current and planned capabilities and recommendations for future air quality modeling programs in China, including long term development of standardized modeling tools, guidelines for model use, methods for evaluating model performance, model dissemination/technical support needs and linkage to cutting edge developments in international air quality modeling, regulation and policy;
- In-depth analysis of certain key sectors, such as
  - transportation, including comparison of laws, regulations, standards and policies in China and the U.S., in addition to projections of future trends in the sector, as a basis for recommendations of medium and long-term strategies, including opportunities for linkage to, and support from the World Summit on Sustainable Development (WSSD) Partnerships for Clean Fuels and Vehicles, and other programs such as *EMBARQ*;
  - indoor air quality and public health in China including opportunities for linkage to the WSSD Partnership for Clean Indoor Air;
  - programs and policies to encourage application of clean energy technology; and
  - emerging national and global programs to inventory and control persistent organic pollutants (POPs) and mercury.

The assessment is also expected to include extensive review and discussion of the assessment and facilitate consensus among U.S. and Chinese working group members on priority areas for air quality management efforts in China. A final report is intended to be produced that identifies opportunities for cost-effective improvements in air quality and contains recommendations for refining existing air quality management efforts in China and gap filling initiatives for emerging or under-addressed sources, pollutants and regions. This report should also identify opportunities to redirect existing and design new cooperative activities for EPA, SEPA, and other partners to contribute to the overall clean air and clean energy effort in China.

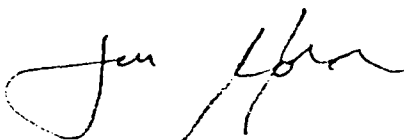
## V. Managing Cooperation

In accordance with Annex I of the "Memorandum of Understanding Between the Environmental Protection Agency of the United States of America and the State Environmental Protection Administration of the People's Republic of China on Scientific and Technical Cooperation in the Field of Environment," ("Annex"), EPA and SEPA intend to establish a Working Group on Clean Air and Clean Energy ("Working Group") that is expected to facilitate the implementation of the regional and national strategy directions outlined above. The Working Group is expected to be co-chaired by the appropriate management officials as designated under the Annex. The Working Group plans to meet annually to review progress in implementing this strategy and is expected to identify opportunities for consultation with key government organizations and other stakeholders in China, the U.S. and internationally to maximize the impact of the coordinated strategy. Over time, and in consultation with the designated management officials under the Annex, the Working Group may revise, expand or create new directions as needed to achieve the overall goal. Project leaders should report periodically on progress in the context of the overall strategic framework, and consult with the Working Group as appropriate to improve effectiveness of the overall Clean Air and Clean Energy Strategy.

EPA and SEPA recognize the importance of adequate coordination on the part of both countries to ensure the success of this strategy. Accordingly, EPA and SEPA expect to discuss and explore what steps they can take individually and, if appropriate, jointly to ensure a high level of coordination.

Pursuant to the Memorandum of Understanding between the Environmental Protection Agency of the United States of America and the State Environmental Protection Administration of the People's Republic of China on Scientific and Technical Cooperation in the Field of the Environment, all activities taken pursuant to this Strategy, shall be subject to the applicable laws of the Parties, as well as the availability of appropriated funds, personnel, and other resources of each Party.

FOR THE ENVIRONMENTAL  
PROTECTION AGENCY OF THE  
UNITED STATES OF AMERICA



FOR THE STATE ENVIRONMENTAL  
PROTECTION ADMINISTRATION OF  
THE PEOPLE'S REPUBLIC OF CHINA

