Since its establishment in 1992, the China Council for International Cooperation on Environment and Development has made a significant contribution to the work and policies of the Chinese government.

With increasing influence, the China Council has expanded the scope of its activities. Its focus has shifted from the general to the practical, including project demonstrations, taking account of China’s specific situation. The recommendations of the Second Meeting of the Second Phase of the China Council are based on the recommendations of its eight Working Groups and one task force. The text has been reviewed by all members.

The Council’s main Recommendations are as follows:

1. Economic Planning and Sustainable Development.

These require respect for the environment as the fundamental resource of society for future as well as present generations. Sustainable development should be integrated into all social and economic fields, and industrial policies and regional planning should take full account of it. It will be particularly important for the formulation of the Tenth Five-Year Plan and other Plans for economic and social development.

- In formulating its macro-economic goals, the State should consider the proper balance between environment and resources, population and economic development, and such indicators as rates of investment, imports and exports, price levels and employment. It should also take account of regional disparities, in particular between coastal and inland provinces.
- Its goals should be refined and integrated in all national economic and social planning, and defined in the form of quantitative and resource efficiency indicators.
- Protection of the environment should have high priority. An illustration of what can go wrong is the way in which recent damage to ecosystems enhanced the effects of the recent disastrous floods. Better integration of environmental, economic, industrial and other policies is essential from the start. Support should be given to environmental business and industry.
- A good example is the need to adapt the industrial base in Bohai coastal region. Construction projects which consume high levels of water and energy, and cause heavy pollution should be kept away from such areas for fear of increasing ecological degradation. Special relief policies are necessary in areas where degradation is already acute and poverty is widespread.
China is short of fresh water resources, and there is much waste. There is clear need for an integrated strategy for water which would attract the substantial investments required. The Council recommends a new approach to water resources, both for agriculture and in cities. Pricing is of particular importance. There should be a system of compensation whereby those downstream who derive benefit from clean water should reward those upstream whose development is limited by the need to preserve natural vegetation.

2. Environmental Protection and Structural Transformation.

Environmental considerations need to be brought into the centers of decision making at all levels, whether in national government, provincial or local administration, industry, business, university, or households. The success of China's current reform program depends on it. Nowhere is this more important than in the field of industry. With the current shift of emphasis from light and textile industries to energy and heavy chemical industries, environmental considerations need to be taken into account at all levels of the industrial process. This applies particularly to new industries where advanced clean technologies can more easily be introduced. Here the role of scientific research into low energy consuming and more efficient technologies and facilities is particularly important.

The maintenance of a solid database and the use of national models should help arrive at a more reliable strategy for the control of such pollutants as sulphur dioxide and carbon dioxide.

3. Biodiversity and Grasslands.

New thinking also needs to be applied to the protection of China's unique biological resources and the development of its agriculture. We need improved knowledge of taxonomic data and promotion of systematics, with more training of professional taxonomists. While destruction of topsoils and forests, and soil erosion are visible to the naked eye, the impoverishment of the natural resource base, and the organisms within it, fail to attract the public and political attention they deserve. Diversity of crop species and the micro-organisms which support them are of fundamental importance. Conservation in gene banks, arboretums and botanical gardens as well as farm conservation methods adopted by rural and farming families need strengthening.

The good management of land, water, fauna and flora and forests is essential for sustainable agriculture. The increasing demand for grain for livestock production as population and living standards rise underlines the importance of healthy agriculture in China.

Particular attention should be paid to the sustainable use of grassland resources and the development of husbandry in south China. This area has great potential and is likely to
develop into a meat and wool production base like that in New Zealand. It will also be important for creating greater wealth in traditionally poor areas. Points of particular importance include:

- Planning to concentrate on areas where farmers will have good access to urban markets with transport services and costs to keep them competitive with imports from elsewhere.
- Infrastructure planning to meet the needs of better processing, marketing, transport and distribution.
- Setting up incentive mechanisms to improve financial and credit policies.
- Research to promote restoration of degraded grasslands and reseeding techniques, and to examine other options for development.
- New management patterns, with family pasture as the basic unit, that conform to the socialist market economy.

4. Ecological Protection.

The Council recommends new measures to protect natural cover in such critical regions of China as the catchment areas of the Yellow and Yangtse rivers.

- After banning the logging of remaining natural forests, measures are necessary to reduce pressure on such forests by improving the supply of energy to upper catchment communities.
- Reduction of overgrazing on critical grassland areas is essential.
- Afforestation projects should be designed with the view to water and soil retention rather than timber production (in other words broadleaf or mixed forests should be preferred to monocultures and conifers). Further increases in forest cover throughout China are desirable.
- Lakes and wetlands should be preserved for the same reason.
- Particular attention should be paid to Hainan as a center for biological conservation so that areas of total or partial protection should be linked to cultivated areas and forest plantations, including green parks and spaces in urban areas. Loss of mangrove swamps and other coastal marine ecosystems has serious implications.
- Mountain ecosystems in north west China are under threat, and this has significance for Asia’s major river systems and the people dependent on them. More work in this area is urgently required.

5. Promotion of Cleaner Production.

Cleaner production is an essential part of the strategy for reducing industrial pollution and introducing sustainable development. In spite of the efforts made during the 1990s, cleaner production still faces many problems including: the low level of awareness.
among decision makers at all levels, in particular factory managers; an inappropriate economic and policy framework; financial incentives; insufficient technical support; and sufficient financial resources. To help cope with these issues, the Council suggests that demonstration areas should be established in certain provinces and cities. Full support should be given to raising awareness, setting up necessary policies and incentives, enhancing training, providing technical support and establishing relevant institutions. Such demonstration projects could later serve as a model for adoption elsewhere.

A clear strategy is necessary for inclusion in current economic and social development planning. In this way a network of clean technology transfer centers could be established to review and revise current legislation, identify means of raising the necessary finance, and support specific projects, particularly in the Township and Village Enterprises.

Cleaner production is particularly important in Township and Village Industrial Enterprises. The record here is not good, and special effort will be necessary.


Current methods of generating energy have caused many of China's worst environmental problems. Given China's current and likely future dependence on coal, the introduction of new and cleaner techniques for using coal is essential. They include gasification of coal to obtain syn-gas. A demonstration project in this area would be of real value. New research on other energy sources, including such new technologies as hydrogen systems, energy fuel cells, wind power and photo-voltaic cells, should be a priority.

With only 2% of China's current energy needs being met by natural gas, there is much scope for greater use of natural gas, in particular in power generation (including cogeneration), and in domestic, small and medium sized industrial applications.

Conventional biomass technologies have provided a major proportion of household energy use covering two thirds of the Chinese population. But the efficiency of energy conversion is low, and needs to be substantially improved. Development of biomass technologies should be strengthened and modernized, and incorporated in regional planning. The gasification of biomass could supply cooking gas and combined heat and power generation. It would greatly contribute to the development of rural areas.

Regional and provincial power companies need help in bringing environmental considerations and energy conservation into their financial and other management practices.

Urban transport planning needs to take better account of environmental considerations, and development of an integrated transport policy, in which different transport modes can be coordinated. Pilot studies are now necessary to demonstrate both the
possibilities and the hazards, and should cover public transport systems and limitations on the use of private cars.

7. Environmental Economics.

The place of environmental economics in a socialist market economy is critical. Nothing is more important than to determine true costs, and ensure that prices reflect them. Green taxation of the kind already practiced elsewhere should be a prime subject of research. To bring about the changes necessary to achieve sustainable development, use of economic instruments, including incentives and disincentives and other such devices as emissions trading, is essential. The same goes for generation of employment, particularly in rural areas.

At present, pollution fees help to prevent and control pollution. But they are currently levied only on emissions that exceed certain levels, and in many cases pollution fees are lower than the costs of cleanup or those of the damage caused. Such fees are not so far collected from Township and Village Enterprises. The Council recommends that pollution fees be charged on all emissions.

8. Conclusions.

The Council commends the papers and numerous recommendations made by the individual Working Groups and Task Force. It also draws attention to certain broad strategic considerations:

- On the international side, it commends full Chinese participation in the negotiations now underway on such issues as climate change (including any mechanisms that may emerge from the Kyoto and Buenos Aires meetings), biodiversity (with its implications for biological resources), world trade and the need to include environmental considerations more effectively within them.
- It underlines the importance of encouraging direct foreign investment in China but also the need to establish appropriate criteria to make sure that such investment conforms to sustainable development. A good example is the need to prevent the introduction of technologies using ozone depleting substances.
- It emphasizes the need for full enforcement of current environmental laws and regulations in China. These anyway need to be more comprehensive and more internally consistent.
- It recognizes that such enforcement is scarcely possible without wider public understanding of the issues: It therefore recommends new emphasis on education and training.
- As before, it underlines the need for the Chinese government to leapfrog over the mistakes of other countries, protect its unique environment and culture, and increasingly make its own distinctive contribution to sustainable development. The Council is fundamentally a framework for partnership. It seeks to promote
that partnership through a two way relationship in which all concerned help and learn from each other.