THE CHINA COUNCIL
FOR INTERNATIONAL COOPERATION
ON ENVIRONMENT AND DEVELOPMENT

THE FOURTH MEETING OF THE THIRD PHASE

Kempinski Hotel, Beijing
November 18 – 20, 2005

SUMMARY RECORD

December 2005
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<td>AGM</td>
<td>Annual General Meeting</td>
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<tr>
<td>CCICED</td>
<td>China Council for International Cooperation on Environment and Development</td>
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<td>CIDA</td>
<td>Canadian International Development Agency</td>
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<td>CPC</td>
<td>Communist Party of China</td>
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<td>EFI</td>
<td>Environmental Fiscal Instrument(s)</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>Environment Protection Bureau</td>
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<td>EU</td>
<td>European Union</td>
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<td>FYP</td>
<td>Five-Year Plan</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GOC</td>
<td>Government of China</td>
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<td>LDC</td>
<td>Less Developed Country</td>
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<td>LEG</td>
<td>Lead Expert Group</td>
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<td>NDRC</td>
<td>National Development and Reform Commission</td>
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<td>NGO</td>
<td>Non Governmental Organization</td>
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<td>NPC</td>
<td>National People’s Congress</td>
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<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>R&amp;D</td>
<td>Research and Development</td>
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<td>UK</td>
<td>United Kingdom</td>
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<td>US</td>
<td>United States</td>
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<td>WBC</td>
<td>World Business Council</td>
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SUMMARY RECORD

I. INTRODUCTION

1. The China Council for International Cooperation on Environment and Development ("the Council") was established in 1992 by the State Council of the Government of China (GOC) to support the cooperation between China and the international community in the fields of environment and development.

2. The Council is a high-level advisory body that proposes recommendations for the Chinese Government’s consideration on the integration of environment and development. It has so far held five annual meetings in the First Phase, five annual meetings in the Second Phase and four meetings in the Third Phase.

3. The Council supports the development of an integrated and coherent approach to environment and development and encourages close cooperation between China and other countries. The Council is a non-governmental body but with strong government involvement. At present the Council comprises 16 Chinese Members and 18 International Members, all chosen for their expert knowledge and their experience.

4. The Council is chaired by Mr. Zeng Peiyan, Vice-Premier of China’s State Council. The Members of the Council attended the 4th Meeting of the 3rd Phase at the invitation of Chair Zeng Peiyan.

5. The host institution was the State Environmental Protection Administration (SEPA). SEPA has been made responsible for inter-ministerial coordination and for supporting the
activities of the Council. It has established a Secretariat Head Office to maintain and develop international and domestic contacts. The Secretariat also ensures follow-up within China to the recommendations made by the Council, and deals with the routine work of the Council when not in session. The Secretariat is assisted by the Secretariat Canadian Office, directed by Professor Earl Drake. The CCICED Secretariat Canadian Office is located at Simon Fraser University in Vancouver and is funded by the Canadian International Development Agency (CIDA).

6. This Summary Record of the 4th Meeting of the 3rd Phase of the Council was prepared for the Secretariat Canadian Office by Ms Lucie McNeill on the basis of more detailed notes recorded during the Meeting. The Summary Record represents the Secretariat Canadian Office’s interpretation of the discussions and not necessarily the views of all participants. To ensure frank and direct exchanges it has been agreed that the Summary Record of the Meeting should present an overview of the discussions without attribution to individual speakers.

II. AGENDA ITEMS

ITEM 1. ADOPTION OF THE AGENDA

7. Vice-Chair Xie Zhenhua presented the theme of the annual general meeting (AGM), China’s Sustainable Urbanization, and welcomed guest speakers as well as other special guests and observers to the meeting. The agenda for the 4th Meeting of the 3rd Phase was adopted as presented.

ITEM 2. APPROVAL OF NEW COUNCIL MEMBERS AND TASK FORCES

8. A number of new Chinese and international Council members, as well as new Task Force (TF) Co-Chairs were announced. Members approved the changes by acclamation.

ITEM 3. OPENING CEREMONY

9. Vice-Chair Xie Zhenhua introduced Council Chair and Vice-Premier of China, Mr Zeng Peiyan. Chair Zeng Peiyan presented a keynote speech to the Council and then invited the following participants to address the AGM:
   1) Vice-Chair Robert Greenhill, President of CIDA
   2) Vice-Chair Xie Zhenhua, Minister of SEPA
   3) Vice-Chair Qu Geping, Former Chair of the National People’s Congress (NPC) Environmental and Resources Protection Committee
4) Vice-Chair Måns Lönnroth, Former State Secretary, Ministry of the Environment; Managing Director of the Foundation for Strategic Environmental Research, Sweden.

10. During his opening remarks, Vice-Premier Zeng made the following comments:

1) The environment and development picture for China in 2005 is positive: Gross domestic product (GDP) growth is expected to top 9%, incomes in rural and urban areas are growing, and the government is investing in social capital such as health and education; the state of the environment is stable and in some areas improving, while popular awareness of the issue is growing. However, resource use, consumption and pollution are also increasing.

2) The Central Committee of the Communist Party of China (CPC) has approved the general direction for the 11th Five-Year Plan (FYP). Its two key objectives are to a) double the year 2000 per capita GDP by 2010 through restructuring the economy, improving efficiency and reducing consumption; and b) reducing energy consumption per unit of GDP by 20% during the five-year period. The GOC will focus on the key tasks of resource conservation, pollution prevention and control, ecological conservation and sustainable development.

3) The 11th FYP period will be crucial in bringing about *xiaokang*, or “well-off society” while at the same time protecting the environment. China needs greater cooperation from the international community in the following areas: environmental work in the “three rivers” (Huai, Hai and Liao), “Three Lakes” (Tai, Chao and Dianchi), Three Gorges Reservoir area and in the “South to North Water Diversion” project, as well as environmental infrastructure projects such as water treatment plants and hazardous waste disposal; environmental technologies in the area of energy-efficient vehicles and buildings, clean coal, waste water recycling, desalination, gas emission scrubbing; capacity building for environmental protection in the legal, planning, policy research, information management and monitoring areas; and in improved knowledge and approaches to deal with global environmental issues such as ozone depletion, global warming, desertification, loss of biodiversity, persistent organic pollutants.

4) The CCICED is a bridge between the international community and China in the areas of development and environment. The GOC hopes that the Council will continue to provide recommendations on emerging issues. The Council could play a growing role in helping China’s economic transformation towards an environmentally-friendly society.

11. Council Vice-Chairs also took part in the 2005 AGM Opening Ceremony. During their remarks, they made the following points:

1) The development of dynamic and prosperous cities that are diverse and tolerant, culturally diverse and environmentally friendly is essential to ensure these cities are economically vibrant and environmentally sustainable. These cities will anchor the kind of entrepreneurial culture of innovation that will in turn ensure economic progress. More than half of the world’s population lives in cities; this will soon be the case in China as well. World expertise needs to
be pooled to explore new approaches supporting urban sustainability. This AGM will bring forward bold but practical solutions to help China achieve sustainable urbanization.

2) The site visits organized by the Secretariat this year for members was most valuable. More than 200 million people from China’s rural areas will be moving into cities and towns over the next fifteen years – which is equal to building one city like Stockholm every month of every year for the next 15 years. Under such developmental pressures, the protection of the environment, culture and regional specificities require strong government coordination, monitoring and vigilance at all levels.

3) Some 40 cities have satisfied a number of criteria and been named “eco-cities”. In many municipalities, there are plans to promote a circular economy. However, the rapid pace of urbanization poses serious challenges: making production more efficient in resource use and reducing waste remain daunting issues. It will therefore be necessary to speed up the structural reform of industry, to promote the circular economy, to improve natural resource pricing policies, to further control pollution in urban areas, to improve water quality and the management of river basins, and to improve the rule of law. In particular, SEPA and its local-level Environmental Protection Bureaus (EPB) will need greater authority in order to fulfill their mandates.

4) The Council is still fulfilling a vital role because the environment and development challenges faced by China keep changing. This year is a crucial one because the government is preparing its 11th FYP and is emphasizing the need for harmony between economic development and environmental protection – much of that reflects the past work and influence of the Council. Increasingly, China is defining evaluation criteria based on the protection of key ecological functions, which are to determine the kinds of developments that will be allowed in specific areas and regions. Priority is to be given to the environmental problems that affect people’s health.

5) The CPC Central Committee and the State Council are increasingly paying attention to the environment. The State Council held two days of meetings this year to discuss the environmental dimensions of the 11th FYP. Six areas of priority in this sector have been set for the 11th FYP: safe drinking water, key waste treatment facilities, pollution prevention, improved management of the environment in urban areas, soil conservation and health, and curbing air pollution in urban areas, in particular sulphur dioxide. The rule of law in environmental monitoring and control will have to be strengthened – and therefore the authority of the local EPBs will need shoring up. Economic instruments such as pollution permits, and public transparency and participation will increasingly be used to enforce rules and regulations.

ITEM 4. KEYNOTE SPEECHES
12. The international keynote speech was presented by Ms. Mona Sahlin, Sweden’s Minister for Sustainable Development. During her remarks to the Council, Ms. Sahlin underlined the following issues:

1) Most of the world’s coming urbanization will occur in the third world and there is a drift towards the creation of mega-cities. China is seeing the largest rural to urban transition ever experienced in history. Sweden went through an equivalent process earlier in the last century; the slums and miserable conditions for migrants led to the creation of the country’s welfare society, and in particular its post-war housing policy.

2) Sweden is now also facing readjustments of its urban areas as the demographics of society change and the imperatives of conservation are felt. More comprehensive, transparent and participatory planning is needed encompassing economic, social and ecological dimensions. Public and private investment is needed to build urban infrastructure and buildings. Sustainable development, social justice and economic growth are each other’s pre-requisites.

3) Sweden has created the Ministry of Sustainable Development earlier in 2005 – expanding the mandate of the former Ministry of the Environment to cover areas such as energy, construction, planning, housing and pollution credits trading. Its main objectives are to improve energy efficiency in the housing sector, to break the dependency on fossil fuels by 2020 through the diversification of energy supplies and the improvement in efficiency, and to improve energy use in the transport sector with work on a national car program and mass transport modes such as rail.

4) China is now putting in its urban infrastructure and choices today will determine efficiencies in years to come. Reducing energy use, especially fossil fuels, has profound impacts on the development of sustainable cities of the future; this requires reducing our dependency on the automobile, making urbanization more cost efficient. As China makes the transition to a market economy, it needs to choose what to control and what to leave to the markets to address; it also needs to build platforms for public participation and for addressing human rights. Transparency and public involvement are the best watchdogs against bribery and corruption.

13. With council Vice-Chair Xie Zhenhua presiding, special guest speaker Mr. Koichi Sueyoshi, Mayor of Kitakyushu City in Japan addressed the Council. During his presentation, he underlined the following issues:

1) China’s leaders recognize that environmental resources and energy are the most important constraints to growth and threats to the environment – they are involved in the search for sustainable solutions. The City of Kitakyushu has recovered from the severe pollution that plagued it some twenty to thirty years ago. Three factors led to this recovery: government intervention through command and control systems, as well as subsidies and other incentives; stakeholder involvement with assigned responsibilities supported by transparency and
communication; and corporate social responsibility to the community whereby industry agreed to comply with more severe regulations than the existing national standards.

2) More than the invisible hand of the market economy is called for. A circular economy was created for this industrial city; controlling pollutants in the production process and recycling of construction materials were priorities. The energy crises that Kitakyushu enterprises had to weather led to the adoption of state-of-the-art technologies, cleaner production processes and energy efficiencies.

3) Having achieved remarkable results, Kitakyushu has now chosen to propagate its model of sustainable urbanization and industrialization to less developed countries (LDC) – the eco-town concept. The key to success in establishing a circular economy is a city’s human resources and the capacities of its managers. With investments from the private sector and from the municipal government, the Kaita International Cooperation Programme was established. It offers 38 training programmes to support the establishment and maintenance of circular economy, cleaner production and energy management; 4,000 trainees – 344 of them from China – have so far completed these courses and are playing leading roles worldwide in promoting a circular economy.

4) The eco-town concept as applied in Kitakyushu promotes a resource recycling society encompassing the recycling of used cars and their parts, home appliances, office equipment, food waste and construction debris. Government is involved through regulatory processes, financial support and guidance; transparency and accountability are essential ingredients to the process. However, the most pressing future need is to foster and train personnel with the knowledge and skills to build sustainable communities. Kitakyushu is shouldering the responsibility to share with countries such as China its model of human resources development.

14. Vice-chair Xie Zhenhua invited Special Observers Ms. Huguette Labelle, former CIDA President, and Mr. Corrado Clini, Director General of Italy’s Ministry of the Environment and Territory, to address the Council. The following points were made:

1) Ms. Labelle has been invited to co-chair along with Professor Song Jian a Task Force on the future of the CCICED and has also been invited to advise the UN on its upcoming Habitat World Urban Forum 3 taking place in Vancouver in 2006. Attending this session of the Council will assist in the work of the new TF. Sustainable urbanization is a critical issue for our times. It is hoped that the experience that China has had and its work on urban development will be shared in Vancouver.

2) In 2000, the Sino-Italian Co-operation Programme for Environmental Protection was signed. To date, it comprises some 45 projects dealing with pollution monitoring and prevention, cleaner and more efficient energy use and technologies, sustainable transportation, sustainable management of water resources, adaptation to climate change, desertification, management of
coastal zones, training and education, and on eco-town planning. Italy is now committed to supporting the CCICED for the remaining year of the 3rd Phase and for the 4th Phase.

15. Vice-Chair Qu Geping invited Mr. Xu Kuangdi, Vice-Chair of the Chinese People’s Political Consultative Conference and President of the Chinese Academy of Engineering, to address the Council. Beginning his presentation by emphasizing he was expressing his personal views, Mr. Xu then made the following points:

1) The pace of urbanization in China has been accelerating over the past ten years, with 1.5% of the population each year moving from the countryside to the cities, in particular to eastern coastal areas. Drawing a line from the northeast to the southwest of China, 37% of China’s territory along the coastal zones is now home to 84% of its population. Moreover certain urban centres are now growing into mega-cities or urban clusters – such as Beijing-Tianjin, the Pearl River Delta, the Yangtse River Delta, Wuhan, Chongqing, Xi’an, Taiyuan, Shenyang and others.

2) By 2020, 830 million people will live in cities; this implies a rural to urban migration of 300 million people over the next 15 years. Major problems will be brought about by this rapid urban growth. The first one is pollution, with decreasing ecological functions of key environmental components. The most serious issue is air pollution. China generates 70% of its electricity through thermal generation by burning coal. Differentials in air quality at different altitudes are clearly visible to any aircraft passenger – at 500 meters’ altitude, smog forms a brown cloud over China’s large cities. Acid rain is now widespread over nearly 40% of China’s territory, especially in the southeast.

3) The second major problem is energy consumption; this is rapidly increasing while utilization efficiencies are lower than the world average. Prior to 1978, only 10% of China’s energy was used for private consumption; this had grown to 25% by 2004 and is projected to reach 33% in 2020. This is due to improving living standards and urbanization – with an ever greater proportion of citizens using appliances such as air conditioners and purchasing private cars.

4) The third major issue is the shortage of water resources – this is now a fact in half of China’s cities. This shortage is now critical for hundreds of cities in north and northwest China. The shortage of land is also a concern for urbanization. The unchecked proliferation of development zones of all kinds is not conducive to rational land use – efficiency varies widely. In some areas, densities are now reaching dangerous levels, while in others, land earmarked for development zones goes fallow.

5) China’s cities are not well prepared for disasters such as earthquakes or floods. These risks are growing as more people move into cities. Cities are developing rapidly from a quantitative point of view, but qualitatively there are few gains – culture, quality of life, green space, environment, all are lagging behind economic growth. A different kind of problem is caused by abandoned mining communities – there are some 700 mining pits now exhausted and abandoned – leading to unemployment and derelict communities. Towns in the future must not be based on a single industry but rather be developed in an integrated way.
Traffic in Beijing is averaging a speed of 20 kilometers per hour – the same as for bicycles. Noise and exhaust emissions from cars as well as the inefficient use of gasoline are all bringing about negative impacts for the city. The usual solution is to widen roads and add ring roads, but this only leads to more cars on the roads. Beijing has on average 56.3 cars per kilometer of road, Shanghai has 84.5, while New York City manages to pack in nearly 450 cars per kilometer. The key to this is traffic management systems – something that needs much improvement in China.

The final problem is the destruction of heritage buildings and local specificities through the construction of anonymous, identical structures from one city to the next.

The solution to China’s urbanization problems will have to be made in China. There are as yet no South-American type of slums around China’s large cities. The China model is to develop the economy, provide job opportunities and ensure there is adequate housing. Developing a circular economy is part of the answer; the Capital Steel will move out of Beijing by the 2008 Olympics and a model hi-tech complex is under construction near Tangshan, Hebei, to replace it. This new state-of-the-art plant will use scrap steel and metals, waste gas to generate electricity, and the slag to produce cement. This complex will set new standards of efficiency in terms of land use, water conservation and recycling. Singapore has shown China the way, with its switch from reliance on imported water from Malaysia to the use of rain-water, the recycling of waste water and desalination. In addition, the use of private cars must be regulated and the use of public transit encouraged.

16. Vice-Chair Qu Geping invited Council Members to question Mr. Xu. During the course of the exchange, the following issues were raised.

1) It is desirable to come up with indicators that reflect an administrator’s performance for more than economic growth; however, non-economic factors are harder to measure in an objective way. It will be hard to change the way performance evaluation is done in China over the short term due to inertia, rigidities and other factors. Health care and education access in China are complex issues; while basic services were widely available in decades past, the quality of the service was poor. At present, there are more choices open to people, but the quality of those choices is reflected in the price. However, the market reforms should be balanced with the principles of efficiency and equity. Starting next year, the central government will be subsidizing education for western rural children, paying for their full tuition, room and board.

2) The household registration system is slowly changing to recognize the fact that rural migrants in many cases are now permanent urban residents. Future legislation may allow people to obtain urban residency if they spend more than half the year in the city. Also under consideration are minimum income requirements, lodging and other services in order to facilitate the migration process. Land use in municipal areas has been problematic, with the over-development of industrial zones, many of which have yet to be built. Putting this kind of development on a more rational footing is the task of the Ministry of Land Resources.
4,000 under-utilized development zones will be shut down and turned back to agriculture over the next year.

3) The debate over energy conservation versus the construction of hydro dams on China’s rivers is a lively one at present. There are plans for extensive damming of China’s north-western rivers – however some of these projects have been suspended pending further study. The South-to-North Water Diversion project is also the subject of debate. The central government has determined that these mega-projects can only go ahead if there are better efforts at water conservation, recycling and waste water treatment.

4) On the control of private cars, this is already the case in Shanghai where license plates are auctioned to the highest bidder. However, local governments benefit from car sales at present through licensing and other fees – this represents a perverse incentive to maximize car sales. In addition, the car industry is seen as an engine of growth that stimulates other industries such as car parts, electronic components and steel. Only long-term education will change people’s views on cars.

5) Climate change, energy conservation and pollution are issues of great concern in China, especially since most of the energy is generated through the burning of sulphurous coal. Efficiency gains will be made when, over the next five years, we install centralized heating systems serving whole neighbourhoods. China has signed the Kyoto Protocol and is committed to lowering greenhouse gas emissions, even if 80% of those emissions are those of developed countries. China must develop but not at the expense of the planet’s climate. There can be an emphasis on using clean coal technologies in the new furnaces we are installing as part of our economic expansion. The dialogue among countries must continue.

ITEM 5. PRESENTATION OF THE ISSUES PAPER

17. Vice Chair Xie Zhenhua introduced Professor Shen Guofang, member of the CCICED Lead Expert Group. The Lead Expert Group (LEG) submitted to Council this year’s Issues Paper dealing with Sustainable Urbanization. International Lead Expert Art Hanson also contributed to the Issues Paper. The Paper itself was presented to the Council by LEG member Professor Pan Jiahua. It represents a common understanding of the LEG on key issues related to sustainable urbanization and incorporates many of the relevant findings of this year’s TF reports.

18. Sustainable urbanization is defined as the dynamic balance between social, economic, ecological and environmental factors during the course of urbanization – going beyond the traditional perspective of rural to urban migration. Sustainable urbanization is the route that will be taken to bring about xiaokang. Urbanization in China has taken on some key features: it was stagnant prior to 1978 and has been accelerating since; it varies considerably across regions; as of 2004, there are 46 mega-cities of over one million in population, 64 cities with one half to one million population, and over 550 medium and
small cities; and since the 1990s, China has seen the emergence of 3 major urban clusters centering around the Pearl River Delta, the Yangtze river delta, and the Bohai sea. Urbanization will continue to accelerate – in 2004, nearly 42% of China’s population is living in cities – by 2020, urbanization will stand at 70%.

19. The market is expected to play an increasingly strong role in urbanization, with industrialization and urbanization mutually reinforcing each other. Key problems are expected in the years to come. The first is the scarcity of water since roughly two thirds of China’s cities are chronically short of water and the water sources for most cities are severely polluted. The second is the scarcity of land for urban development – particularly along the thriving coastal zones – due in part to the low efficiency in land use and poor planning. Thirdly, there is a shortage of high quality energy sources, particularly petroleum and electricity – with power rationing increasingly frequent – a problem that is compounded by poor efficiency in energy use.

20. Environmental pollution in China’s cities exceeds the existing absorptive capacities. Air quality in most cities is of class III or below – 70% of China’s urban population is exposed to sub-standard air. There is poor disposal of cities’ solid wastes, with most cities overwhelmed by garbage and suffering increasing impacts from hazardous wastes. Soil pollution is serious and leads to economic losses. The high consumption of resources by cities, combined with poor efficiencies in resource use and poor waste recycling and disposal result in an increasing ecological footprint. Studies indicate that the per capita ecological footprint of Chinese cities exceeds the per capita average carrying capacities of the environment.

21. Urban infrastructure (transportation, potable water distribution, sewage and solid waste treatment, natural gas supply, etc.) is better in the mega and large cities than in medium and small cities, because larger urban centres generate enough wealth to allow for the necessary investments. The problem is compounded by gaps in planning, design, construction and management capacities, and by access to financing for infrastructure investments. The regional gaps between coastal and interior cities in this respect are profound and continue to grow.

22. Poor municipal governance is also seen as a constraint to sustainable urbanization. Governments are now driving urbanization, supplanting market forces in areas such as land requisition and industrial planning. The participation of enterprises and the public in these decision processes is neglected. There is ineffective enforcement of existing laws and regulations governing urban zoning and management. Urban service provision to residents is not satisfactory. There is inadequate supervision of conflicts erupting over rights and interests between different levels of government or among departments.
23. Strategic approaches are needed to support sustainable urbanization, namely:

1) There is a need for the authorities to use pricing as market signals, to support technology research and development (R&D), and to guide the public towards “green” consumption choices.

2) To support pollution control, there is a need to conduct capacity assessments for urban sustainability, for the promotion of cleaner production, for the development of improved urban environmental infrastructures and for the promotion of sustainable urban transportation systems.

3) To support more harmonious spatial distribution and scale of cities, there is a need for the coordinated development of large, medium and small-sized cities and townships, for setting policies and systems favouring the development of high-density urban clusters, and for the harmonization of urban and rural development.

4) To support improved urban planning and management through the application of science and the rule of law, there is a need for using science and defining sustainable development principles in urban planning. Blind development should be avoided, the harmonious integration of humans and nature should be considered, during the revision of master plans cultural as well as environmental social and economic considerations need to be included, and city master plans must be consistent with regional planning. A revision of the Law on Urban Planning is recommended whereby there is support for the concerted development of big, medium and small cities and towns, there is added stipulation for public participation in urban planning, and there is no contradiction with other relevant laws.

ITEM 6. GENERAL DEBATE ON THE AGM THEME OF SUSTAINABLE URBANIZATION

24. With Vice-Chair Xie Zhenhua presiding, Council members initiated a discussion on the LEG Issues Paper and the AGM theme of Sustainable Urbanization. During the debate, the following views were expressed.

25. In the 11th FYP proposal put forth by the Central Committee of the CPC, only two quantitative goals are stipulated – namely to double the GDP between 2000 and 2010, and to improve energy efficiency per unit of GDP produced. Minister Xie should be commended for achieving the de-coupling of economic and environmental goals in the FYP. China’s economy needs to grow, but the world and China cannot afford the amount of environmental damage that would be commensurate with that growth. The plans to introduce environmental factors in the calculation of the GDP and the planned
environmental indicators of local managers’ performance also should be commended. It will be important for the central government to give SEPA the powers to enforce legislation and regulations.

26. China has only achieved 33% energy efficiency in its coal power generation plants; that proportion is 70% to 75% on average in Denmark where in winter the heat generated is used for housing district systems. This would be a feasible approach in northern China, but municipalities do not have access to the necessary financing mechanisms. Equally of concern is solid waste disposal; in Denmark, 65% of solid wastes is recycled, 22% is incinerated for power generation, and 13% goes into landfill.

27. Recent riots in France attest to the importance of the management of cities – the result of cities’ mismanagement is clear when there is an inability to build social cohesion in increasingly diverse communities. The most important social changes in China’s future will happen as a result of urbanization. The lack of access to housing, health, education and other basic services in cities – and in some cases the failure of cities to distribute these essential services equitably among different groups – would lead to a failure in social cohesion.

28. The scale of urbanization in China puts even more emphasis on the importance of energy utilization in cities. Depending on the city model chosen, patterns of high energy or low energy demand will be created. China is at the turning point where it can design energy efficient cities; otherwise it will be locked into scenarios that are more energy demanding and therefore less sustainable over decades to come.

29. There is a need for greater support from the national government for progressive actions taken by municipal governments. Without this support, cities have trouble implementing sustainable policies if national policies promote contradictory goals. Local authorities must be involved in national decision-making and there must be a clear framework for national decision-making as well.

30. Environmental problems faced by China have regional characteristics. The physical and geographic particularities of environmental problems are regional; but there is a mismatch between these natural regions and the political boundaries used to manage the issues. This has implications for solutions and for mechanisms to develop improved coordination and planning between provinces and between cities. This regional aspect should be highlighted.

31. The Organization for Economic Co-operation and Development (OECD) has been working on sustainable development as its overarching objective; sustainable urbanization is a challenge for OECD countries as well. Key issues related to sustainable cities have been explored, such as pricing, taxation,
circular economy and sustainable transportation. Reviews on governance, the economy and agriculture in China have been concluded recently. Studies have revealed that reducing air pollution in cities would yield health benefits totalling 4% of GDP. The OECD is now doing an environmental review of China, which will be presented in Beijing next year.

32. It is important to look at the impact of climate change in the future – water will be scarce for many uses in China, including urban development. Agriculture may not be as productive, leading to increased out-migration and additional pressures on urban areas. Climate change effects need to be taken into account explicitly in the Council’s recommendations.

33. China’s example in the area of energy efficiency could influence the world. Energy efficiency measures need to be conceived for the most part on a decentralized basis. When mayors in China come up with plans to promote economic growth, they should be given at the same time specific environmental and energy targets to meet. Such targets need to be developed using a bottom-up approach.

34. A major constraint in the implementation of public transport in urban areas is the inability of local governments to mobilize funds. Clear financial models are needed to support the development of effective public transport options. Pro-active interventions on the part of governments are required in cities that are developing towards a given scale. Public transport systems must be put in place before cities grow too large. Subsidies are most often required to support such systems, requiring revenue sources. A more in-depth study of these financial models could prove valuable for the Council.

ITEM 7. GENERAL DEBATE ON THE COUNCIL RECOMMENDATIONS

35. With Vice-Chair Robert Greenhill presiding, Lead Expert Art Hanson presented to Council an overview of the first draft of the recommendations to the Chinese government. An initial discussion ensued.

36. The following points in the draft recommendations were drawn to the attention of Council members:

1) Sustainable urbanization is an extremely complex topic to tackle. China is facing a daunting task in aligning resource use and environmental protection on the scale that is required in order to ensure sustainability. It is questionable whether international experience is relevant, given the scale and pace of the phenomenon in China – the solutions recommended for sustainable urbanization may have to be “made-in-China”.

ITEM 7. GENERAL DEBATE ON THE COUNCIL RECOMMENDATIONS
2) China’s sustainable urbanization is linked to industrialization and rural development. Urbanization will be a transformative engine of growth for the country; in this area more than elsewhere, new approaches to public participation in decision-making are needed.

3) The urbanization process goes beyond the efforts of any one city – regional development and the development of metropolitan areas, or urban clusters, provide the context to any city’s growth. China may be under-urbanized at present, largely due to rigidities impeding migration. Gaps between rural and urban livelihoods are growing, but there are bound to be significant gaps within cities in the coming years. Highlighting urban poverty and its consequences is important.

4) The recommendations have been organized into five broad, systemic recommendations followed by more detailed thematic ones based on each TF’s report. The TF reports are appended to the recommendations and contain rich material for policy makers. It will be important in revising this draft to ensure the recommendations made are pragmatic and can be implemented. They should reinforce the government’s stated directions for the 11th FYP.

37. After an explication of the process by which the recommendations were to be finalized, Council members brought the following points forward for consideration.

38. Economic development in the past has been heavily subsidized by nature – this process will have to rely in the future on human and financial capital. The recommendations need to put more emphasis on the human element, namely culture and local identities, in order to avoid the trend whereby cities become increasingly homogeneous and hence anonymous. Beyond the provision of services and infrastructure, cities are centres of cultural activity, of research, of academic life. These factors are critical to economic growth, to social cohesion and to the vitality of cities. Participation and diversity are key to this – cities have to be places reflecting women and men’s realities, and they have to be built around cohesive neighbourhoods.

39. The United Kingdom (UK) has just held a Task Force on Cities that focused in part on urban regeneration. Central to this is the redevelopment of old sites including brownfields in order to avoid urban sprawl; cities are to be limited to the spaces they now cover. Cities are for living in; there is a need to take into account the needs and priorities of the men, women and children of different backgrounds residing there. Creating living communities should not be neglected in the Council’s recommendations.

40. Beijing is now a sprawling metropolis with six ring roads, increasing population and severe traffic congestion – some people refer to it as one big parking lot. This is happening because this is a city where too many important functions are concentrated – political power, diplomacy, academic
learning, transport hub, trade, research, industry, manufacturing, culture, etc. Redistributing these functional burdens is essential to improved liveability for large cities. If cars are allowed to further proliferate in the capital, this will give a bad example to other Chinese cities.

41. The Council recommendations should discuss the role enterprises can play in the circular economy. Industries must be the backbone of environmental protection – companies have to be asked to shoulder their responsibilities in terms of the economy, society and the environment. At present, Chinese enterprises are ignorant of what is discussed here; they only respond to direct top-down orders, they do not take the lead or initiate action. More efforts are required to reach and include these enterprises in decision-making around sustainability issues.

42. The current urban capital stock will need to be climate-proofed; weather and climate variability now require us to think about construction and planning standards for the next generation of capital stock in urban areas. We need to also determine what forms of urbanization contribute to social cohesion and enhance communities; future sustainable cities will not only depend on economic vibrancy and environmental sustainability but also on social cohesion. In determining action plans, cost benefit analyses of the interventions and appropriate sequencing will be key. In thinking about the sources of urban growth, from rural to small cities and then onto medium and larger cities, we need to think about optimal paths of migration and support this with appropriate incentives.

43. Just as many of the buildings in New York City were built in the 1920s, buildings going up in Shanghai today will be standing for decades to come. Cities in China have a chance to “get it right” as they invest in urban stock today. Key elements will be the energy and resource conservation characteristics of these investments.

44. Two key policy ideas need to be sharpened in the Issues Paper. The first focus should be on market failure: markets are not reflecting real values in China, but they are the best tool available to deal with complex problems – they need to be made to work. The framework that will support markets comprises pricing, minimum performance standards such as building codes and fuel efficiency for cars. The second focus should be on the incentives that will trigger behaviour change in economic actors. Positive behaviour needs to be rewarded so people are motivated to change.

45. The recommendations focus on legislative, administrative and fiscal actions that can be taken – there are also suggestions of indicators to measure local government performance. But there is a gap between these two processes and this may explain why problems such as air pollution keep on getting worse. In Europe, some of the constraints to action were lack of human resources, competing demands on municipal staff, lack of private sector understanding of environmental standards and available technological options. This kind of analysis on existing gaps at the local level and in smaller enterprises is missing in the Issues Paper at present.
46. There is a danger in the recommendations being too numerous and too all-encompassing. Because investments today will determine consumption patterns in the future, there should be a priority put on avoiding urban sprawl and the segregation between wealthy and poor areas. Stringent land use policies and investment in urban infrastructure are needed to avoid these pitfalls.

47. We should avoid falling into the trap of characterizing urbanization as a disaster—it can also be an opportunity for the urban areas and for the people living there, since some services can only be provided in larger agglomerations. However, there is a need to protect and expand the natural capital of urban zones—wetlands, parks and greenbelts—otherwise this will be lost to construction. Cities can be more efficient in recycling wastes and in their use of water and energy. Cities are the heart of regions—the conservation of biodiversity can be sustained if a new relationship is fostered with the cities.

48. The challenge of having urban areas in China absorb hundreds of millions of additional residents has been outlined for Council. In LDCs, there is a need to support the “de-concentration” of cities in order to ensure more balanced development. Key to sustainable municipal management in China is capacity building of the local people responsible for running these areas. The implementation of policies and regulations will depend on the knowledge and skills of local administrators and managers.

49. There are serious problems with energy use and efficiencies in small and medium Chinese cities. At present, there is a lack of coherence in planning, efficiencies are low and pollution is serious. Biomass presents a good potential for smaller municipalities, but it will be necessary to pelletize the material to improve ease of use. Coal and hydropower can be centralized, but biogas must be handled locally. Fuel choices should be based on the realities of the locality, but there should be a comprehensive framework developed for fuel use in China.

50. Experience in the United States has relevance for China. There has been much focus on combating sulphur dioxide and particulates, but studies in the US show that ozone is a greater concern as an air column pollutant. As particulates are increasingly being brought under control, China will need to focus on ozone. It should also be noted that when Boston tripled its water utilization rates, consumption went down by a factor of two.

ITEM 8. REPORT ON THE TASK FORCE CO-CHAIRS’ COORDINATION MEETING

51. With Vice-Chair Robert Greenhill presiding, Lead Expert Art Hanson briefed Council members on the discussions held at the Task Force Co-Chairs’ coordination meeting of November 17th 2005. The following points were highlighted during the report.
52. The meeting focused on specific problems faced by the Task Forces over the past year, on observations on the Issues Paper and Recommendations, and on the cross-cutting issues involved in TF work.

53. On the first point, there was difficulty with several Task Forces in properly linking the international experts’ work and that of the Chinese members. This is apparent in the reports produced in some cases, where parallel streams of thought become evident.

54. Observations made during the meeting on the Issues Paper and Recommendations will be translated into changes to the original drafts.

55. On the cross-cutting, integrative issues, three key observations were made. The TF Co-Chairs felt that poverty reduction, in the urban areas as well as in the migration process, is an essential issue and social equity must be taken on board during research work. For instance, the transportation needs of disabled people need to be highlighted. Questions were raised about the adequacy of statistical systems in China and about the ways to make statistics more robust; unreliable data can lead to wrong conclusions regarding progress on environmental sustainability indicators. Coordination and sequencing of interventions in the process of urbanization were encountered by all TF teams.

ITEM 9. REPORTS BY THE TASK FORCES

56. Vice-Chairs Robert Greenhill, Qu Geping and Måns Lönroth presided over the presentation of the Task Force reports and ensuing Council discussions.

a) Task Force on Sustainable Urbanization Strategy

57. Task Force group leaders Ye Yaoxian and Johan Fredrik Rockstrom presented a summary of the report to Council members. During the course of their talk, they emphasized the following points:

58. Six areas of study were undertaken; the work comprised site visits to 20 Chinese cities, interviews, workshops, seminars and thematic meetings. This work explored the historic process whereby Chinese society is transforming itself from a largely rural to a largely urban one. Since 1949, China has gone from 10.6% urbanization to 41.8% in 2004. There have been three phases in this process: from 1949 to 1958 there was progressive urbanization; from 1958 to 1978, there were large fluctuations in the rural to urban migration, including some reversals of the process; from 1978 to 2004 there has been rapid urbanization led by rapid industrialization and by the growth of the service sector. Most of
the rural to urban migration is to larger cities – not the small and medium towns that actually need to grow.

59. Key problems encountered during the more recent urbanization are a decrease in farmland in peri-urban areas due to excessive transfers of land for urban development – lack of land will constrain the growth of China’s largest cities; energy supplies are decreasing and could curb the process; there are serious water shortages in northern cities; there are increasing pressures on the environment.

60. As a result of rapid rates of migration, cities are facing rising pressure to create jobs. Each percentage point increase in GDP growth only stimulates a 0.1% growth in employment. Yet there are 24 million new workers added to the urban workforce per year, with only 10 million finding jobs – indicating a gap of 14 million people joining the ranks of the unemployed.

61. Cities lack the necessary infrastructure, and the existing infrastructure is aging – 20% of the water piping systems are leaking, there are poor drainage and sewage systems, public transport is inadequate and 70% of China’s cities are vulnerable to earthquakes and floods. As cities modernize, they are losing their local characteristics.

62. Urban planning and zoning systems are inadequate in China at present, and they are not backed by a solid legal framework. The housing sector has yet to be fully reformed. There is little coordination evident in the way cities are developing. Yet the urbanization push of the coming years will require massive construction and investments.

63. Recommendations to ensure a smoother process are based on scenarios exploring different development paths, based on criteria such as migration rates and land use policies. The TF recommends that urban planning and regional planning be improved; that plans be based on a city’s environmental capacity and its resources; that the development of urban clusters such as in the Pearl River delta be optimized; that medium and small cities put in place plans to become environmentally-friendly; that the development of urban and rural areas be more closely coordinated; and that conservation of resources be encouraged through the promotion of the circular economy and the promotion of conservation options for urban residents.

64. While urbanization is not unique to China, the pace and scale of the process are unprecedented in the world. Scenario analysis was used to address the complexity of urbanization – it can then be examined from a regional development perspective and take into account extreme events such as climate change effects, social vulnerability and other factors. The rapid pace of urbanization in China
could allow for the realization of synergies of economic growth and urbanization. The analysis was conducted in the wider context of economic growth, environmental sustainability and social equity.

65. The past restrictions on rural to urban migration were examined for their development implications. Other factors examined are the lack of infrastructure funding, unbalanced regional urban and rural growth, urban poverty, the need for diversity and local ownership in decision-making processes and urban poverty. The TF took into account ecological limits such as water, land, green space and others.

66. The findings indicate that the problem of urban sprawl is the most daunting for China. Cities’ footprints are growing due to changes in consumption and production patterns. In the scenario analysis, economic growth is assumed to continue apace. Parameters chosen are economic and environmental efficiencies and social equity.

67. Resulting recommendations are: planning should be done in a regional context, with the central government providing a framework, but local plans being defined based on regional specificities; compact cities should be encouraged because they reduce fuel dependency and financial mechanisms can be used to promote this approach; urban services must be provided equitably, to residents and migrants alike.

68. The scenario analysis reveals a “golden path” whereby both social equity and compact, efficient development are supported. China has a window of opportunity over the next twenty years to choose this path. Chinese cities are relatively compact at present and limiting their footprint would promote efficiency gains.

Discussion

69. Housing types using relatively simple technology can foster greater water and energy savings. Improved land use planning will enable cities to avoid environmental mistakes. Citizens also need to move easily from home to work – the focus must be on cheaper, more efficient transport modes, such as public transit and bicycles. Greater public involvement in environmental impact assessments (EIA) and planning processes in cities can ensure cities develop in ways that meet citizens’ needs.

70. Cities need to develop towards greater liveability, sustainability and social cohesion. This point needs to be further emphasized in the Council recommendations. China has the opportunity to prepare now long-term integrated city plans, with neighbourhoods as hubs of urban activity. Stakeholders must be involved so they can take ownership of the process. Changes, including pricing policies, must be introduced gradually in order to avoid segregation. Without integrated planning, there is a risk of
fragmentation and lost efficiencies. China needs to ponder the limits to urban densities as well in order to avoid undesirable social results.

71. China is well aware of the problems related to the current urbanization drive – it does not need to have those further explored. Many of the recommendations put forth in this TF are already included in current drafts of the 11th FYP. But China needs assistance in moving from broad policy directions to actual implementation on the ground and to day-to-day enforcement. Specific, practical mechanisms of implementation and enforcement are needed by the State Council.

72. For the “golden path” suggested to not be overly bureaucratic, citizens will need to be involved in the process. The correct sequencing of economic measures and technological solutions is key. In addition, in the implementation of pricing measures, equity must be preserved by ensuring minimum thresholds for access to services. Incentives will need to be devised to encourage participation of the private sector.

73. There is a problem with definitions. “Growth” is an ambiguous term, as is GDP. Next year the Council will address the issues of xiaokang and harmonious growth. The Council needs to be precise in its use of language and avoid ambiguous concepts.

74. There has been work done in China on the issue of improved coordination for urbanization, with several pilot projects now underway. Eco-towns and other models are being widely touted. The Council’s recommendations also need to be made more concrete through demonstration projects in order to ensure improved understanding. There is a contradiction in China, in that the best eco-cities are also the poorest; these poor cities are crying for any kind of development. There is a need to link the eco-city concept to sustainable development – ecological and cultural or heritage assets need to be transformed into economic assets.

75. Economic growth and energy consumption go hand in hand. Urbanization will not be reversed. Cost effective planning and construction are needed on the input side; real pricing that takes into account environmental externalities is needed on the output side.

76. There are limits to what a government can do on its own, especially with the scope and scale of what the Chinese government needs to accomplish. The Council does not need to submit more recommendations to China; it needs to support more detailed, in-depth studies in targeted areas, such as land use and organizational financing.
77. China knows what needs to be done and yet somehow this has not been happening. Energy conservation has been long discussed and only 5% savings have been realized. With over 160 Chinese cities slated to become metropolitan areas, the energy crunch will become more severe. Yet mayors are encouraging automobile traffic and discriminating against bicyclists in many municipalities. Many practical, feasible good ideas are never put into practice in cities. Leaders need to be punished for choosing the wrong policies and for supporting prestige projects.

b) Task Force on Environmental and Natural Resources Pricing and Taxation

78. The Task Force report was presented to Council by Co-Chairs Jerry Warford and Ma Zhong. In discussing their findings, the presenters emphasized the following issues.

79. This TF is an offshoot of the Economics Working Group, which has been integrating economic considerations into issues of environment and development since the Council was formed twelve years ago. Much of the early efforts focused on basic questions of environmental economics, and on working with other Working Groups to ensure solid economic analysis. The real costs of natural resources, pollution and environmental degradation were estimated – in-depth case studies were conducted. The unequal distribution of income and its impacts on environment and development were also explored. The present report builds upon this earlier body of work.

80. The TF focused this year on environmental fiscal instruments (EFI). EFI comprise three components: public revenue instruments such as environmental taxes; public expenditure policies including fiscal transfers, and; pricing policies for environmental and natural resources. Soundly designed EFI can help create economic incentives for efficient resource use and pollution reduction; mobilize and allocate funds for environmental protection and natural resources management; and ensure an equitable distribution of benefits and costs from the management of public environmental resources. At present there is too much reliance on the market for environmental protection – something that the market does poorly.

81. The overall objective should be to mainstream the EFI instrument into public finance. Actions to bring this about are to establish a policy framework for EFI that sits within the public finance system and involves relevant sectoral agencies; this would require clarifying existing government functions related to EFI, establishing coordination and evaluation mechanisms for EFI, enhancing the participation of environmental authorities in economic and sectoral policy processes.

82. The other required action is to ensure the proper establishment and effective functioning of the Environmental Fiscal Expenditure Account. This would require observation of a number of rules such as ensuring the Account guarantee adequate and predictable budget allocations to public authorities with environmental mandates, prioritizing problems with clear national importance, and establishing
modalities for fiscal transfer payments for environmental protection. There should also be coordination between environmental expenditures and those for poverty alleviation programs in order to exploit win-win opportunities.

83. Also needed is the development of a systematic and consistent approach to environmental pricing and taxation reform. This will require a “greening” of the taxation system, with the imposition of carbon or sulphur taxes; strengthening the scientific soundness of environmental valuation in China; determining public utility pricing based on long-run marginal opportunity costs; and where a subsidy is advocated, it should be time-bound and target-oriented.

84. Clean water and fresh air should be the two priority areas for implementing EFI. In applying this to urban wastewater management, EFI will allow for demand management – but supervision of municipal pollution sources must be strengthened, fiscal transfer payments must be improved to support sewage treatment and collection; and wastewater pricing and investment in sewage treatment and collection should be organized on a river-basin level. Water pricing needs to be rationalized, with water prices adjusted upward through a water resource tax, improving the supervision of price setting systems, and the implementation of a two-step tariff structure to ease the burden on poor households.

85. An EFI system to reduce sulphur emissions would comprise increasing desulphurisation treatment by extending the pricing scheme to all coal-burning power plants; incorporating the cost of desulphurization gradually into the end price paid by electricity consumers; setting a time limit for the promulgation of desulphurization electricity pricing schemes in order to encourage alternative technologies. Tax relief measures should be applied to encourage comprehensive use of by-products of the process, and damage-based product taxes and damage-weighted fuel taxes should also be implemented.

Discussion

86. A concrete recommendation deals with calculating the price of ecosystem services. One of the countries in the vanguard in this area is Costa Rica, which is using this instrument to protect its upper watersheds – downstream users are compensating upstream residents. Other countries are also trying this, although there are problems. Pricing ecosystem services can be equated with the creation of new property rights. On another point, market failures are often mentioned but the issue is the legality in excluding certain elements from the calculation of prices. Social costs used to be externalized in the early phases of industrialization in the West, and political decisions were made to intervene. There needs to be a discussion on the nature of public goods in China.
87. A determination must be made on whether green taxes are to be used to raise revenues or influence behaviour. In certain cases, demand is not affected by price rises due to green taxes. If the goods are basic needs, pricing instruments may be of limited use in changing behaviour. A signal should be given to the GOC that in one or two cases, the use of green taxes is necessary and should be tried.

88. The report captures the experience gathered on EFI that have been tried empirically – all recommended instruments already exist in one form or another. The paper is a cutting-edge review of what is applicable and it provides pragmatic, feasible policy guidance to the GOC. Lessons on EFI could be applied to other sectors – forestry, wildlife and so on. In order to ensure public acceptance of the green taxation system, there also has to be a greening of economic instruments to account for development and environmental changes. Proper valuation of resources is key to this process.

89. Resource saving cities and the maintenance of a circular economy all depend on efficiency, which in turn is driven by pricing and policies. The general recommendations focus on energy and water pricing. To the list should be added the deregulation of energy and water prices, since significant subsidies are involved at present and provide disincentives to efficiency gains.

90. It is important to focus on well-functioning markets, as well as on effective taxation. There might be resistance to using an environmental tax to correct a market failure, but there is more acceptance to pricing resources appropriately in order to support efficient markets. Finance ministries do not favour earmarking taxes for specific expenditures.

91. Externalities are likely to increase in China and there is a need for detailed, decentralized analysis of these phenomena in order to ensure the GOC can take sound pricing decisions. An independent regulatory body may need to be created in order to oversee pricing; such a body would need to operate transparently. Policies and guidelines could be set at the central level, while actual prices could fluctuate depending on regions. Unless there is a proper assessment of prices and taxes, and unless there is an objective transparent process to determine these, a country can end up with irrational pricing and tax signals.

92. Studies show that taxing and pricing as well as tradable permits work effectively. OECD studies have revealed that the use of EFI can lead to savings amounting to 20% of environmental costs. At present, the estimation of externalities is still weak; this recovery could be higher with better science. Concerns have been expressed over distribution impacts and over losses in international competitiveness for countries that adopt such systems.

93. Market-based instruments cannot solve all problems; a mix of such instruments with command and control measures is effective, as has been shown in the European Union (EU). Proper information
systems can ensure enterprises adapt to new fiscal and regulatory environments. Additional measures are needed to mitigate negative impacts on vulnerable groups.

94. Pricing works if we take into account differences between the captive sectors and export-oriented industries. Emissions trading works in electricity generation, since the costs can be passed on to consumers. Export-oriented industries resist emissions trading since this affects their international competitive position.

95. This TF has done in-depth work and provides the GOC with pragmatic, feasible recommendations based on case analysis. Investment in environmental infrastructure such as water treatment plants needs to be diversified, with sourcing from the private as well as the public sector. But these plants are to operate on a market basis to ensure sufficient funds for construction and operation. China has had some success with leaded gas using pricing instruments – leaded gasoline was withdrawn from the market within three years. China also has taxed sulphur dioxide and there are incentives for the installation of desulphurization equipment for thermal power plants.

96. For some resources, the country has yet to take action and the result has been waste. Irrationalities still need to be corrected for water pricing and for sewage treatment. The central government is subsidizing sewage treatment facilities to a greater degree in upstream areas to compensate for the service provided to downstream residents – but operation costs remain a problem in poor areas. More research is needed on the part of the TF on the determination of the tax base for environmental taxes, and on the appropriate administrative channel to use in order to levy the taxes.

c) Task Force on the Circular Economy

97. Task Force Co-Chair Bernd Bilitewski and TF member Wang Tongshan highlighted the main points of the Circular Economy TF report for Council Members.

98. The concept of circular economy has to be carefully defined; there is a wide variability in how the term is used by different institutions in China. The TF defines it as a model of economic development which aims at environmental protection, pollution prevention and sustainable development through conservation, re-using and recycling of resources, in order to minimize pollution at source and reduce overall waste per unit of output.

99. Targets for the 11th FYP have been set by the Central Committee of the CPC: GDP is to double between the years 2000 and 2010, and double again by 2020; the environment and the capacity for
sustainable development must be enhanced; and a resource-saving and environmentally-friendly society must be created. In order to realize these broad objectives, the TF recommends five tasks be undertaken in the implementation of a circular economy: a mechanism for the circular economy must be established; cleaner production systems must be established; closed loops principles must be applied whereby in industrial parks wastes are re-used; cities must be the focal points of recycling networks that perform the collection, re-use, recycling of wastes; resource and energy saving must be promoted.

100. Starting in 2003, SEPA initiated the program of “eco-province construction” which embodied circular economy principles. At present there are 8 eco-provinces; the pilot projects now extend to all lower administrative levels including enterprises. The Cleaner Production Promotion Law has been promulgated. The State Council in 2005 has endorsed the concept and is now promoting it; the National Development and Reform Commission (NDRC) has a section dedicated to this work. Enterprises are also making progress, for instance in meeting the stringent criteria for ISO 14000 certification. On the municipal front, progress is being made in the areas of waste collection, treatment and recycling; some cities have eco-parks and have strengthened waste treatment organizations. The analogy used by the TF is that of the human circulatory system, with blood being purified and re-used in a continuous cycle.

101. There are major obstacles to the establishment of a circular economy in China: there is no comprehensive system of relevant laws to support this; there is a lack of coordination among the relevant government authorities at various administrative levels; there are no consistent, reliable data to help determine material flows; there are no effective financial and investment mechanisms to help support the circular economy; there is a lack of sound and logical pricing of natural resources; and there is an incomplete system for waste management and recycling.

102. Recommendations of the TF are divided into several categories. First, the TF recommends the following general targets be sought: a legal system and a market-based system should be established to support the circular economy; the concept needs to be further publicized through pilot and demonstration projects; ecological farming; cleaner production; improved waste management and closed loop systems for resource and energy utilization.

103. Secondly, specific targets should be achieved by 2010, namely to: reduce the energy conservation relative to GDP by 4% per year; to increase the re-utilization of industrial solid waste from 55% at present to 65%; to increase the reutilization of industrial waste water from the present 80% to 90%; to increase the rate of safe disposal of residual industrial waste from the present 60% to 100%; to safely treat all toxic hazardous waste; to increase the treatment of household waste to 70% from actual 58%; to increase the use of waste water for animal farms to 70%. The targets have been set by examining similar targets in effect at present in the EU, Japan and other countries.
104. Thirdly, priorities are recommended for specific industrial sectors, namely: the coal-fired power generation sector, raw chemical material and chemical products manufacturing sector, ferrous metal smelting and rolling processing sector, oil refinery and coking sector, paper and paper products sector, cement manufacturing, chemical fabric manufacturing, food and beverage processing sector. In this context, efforts are to centre on: promoting cleaner production, promoting industrial structural change, improving economies of scale, extending circular economy technologies and increasing the rate of waste utilization and recycling. Regional priorities are also recommended: the focus should be on regions with ecological significance, upstream areas of river basins, smaller catchments, water reservoirs that provide potable water, and areas where there are water shortages.

105. The TF puts forth the following policy recommendations: to formulate industrial and technological standards for the recycling industries to prevent secondary pollution; to establish a pricing system increasing the average rate of resource taxes to 20% of market value and establishing scientific pricing for water and energy; to introduce an emissions tax to encourage enterprises to recycle resources; to accelerate the transition from value-added tax to consumption tax; to establish a Green Government Procurement law; to establish a Circular Economy Fund to invest in the circular economy and with capital raised from special government bonds, dedicated lottery, resource taxes and other sources.

106. Administrative policies recommended involve the promotion of manufacturer responsibility on the collection of used products and other measures. Technological policies recommended include the compulsory phasing out of outdated technology and providing incentives for technological innovations, among others. In addition, public participation needs to be encouraged, with education and training on the circular economy provided to government officials and the public, including programs implemented in the schools. Participation is enhanced when environmental information is disclosed and the public is encouraged to contribute to monitoring and supervision. Local government performance measurement indicators should encompass accomplishments on the circular economy front.

107. The circular economy is a cross-cutting issue; many of the other TF recommendations from this and past years are inter-linked with this TF’s. An indispensable element to the implementation of a circular economy is the quality of the statistical information available to account for and analyze material flows.

Discussion

108. An earlier TF of the Council focused on sustainable industrialization and studied some of the key polluting sectors such as cement, paper, oil and sugar refineries. The structure of these sectors was
examined and compared to international best practices. The key finding was that plants in China were for the most part obsolete in terms of scale and technologies of production. Just patching up obsolete plants is a waste of money – a full restructuring is called for. The right order must be followed in government interventions.

109. The technological aspect cannot be ignored; access to technology for improved efficiencies is often lacking. But more importantly, circular economy plants must start with the right designs; it is difficult to retrofit a plant in order to comply to cleaner production principles. In addition, the emphasis must be put on the enterprise, since this is the unit where the production processes are determined. Top management needs awareness raising and education.

110. Only by enforcing practical goals and ensuring companies report on results can circular economy targets be achieved. This needs to be stipulated in law to ensure compliance. In Japan, the recycling system is legislated and producers are responsible for the product during its entire lifecycle. This happens for vehicles, appliances, containers, packages and more. Such a system needs to be established through stakeholder consultations.

111. Waste discharges need to be strictly enforced. Four key policy elements are in effect but each needs strengthening in China. The first is total emissions control, creating discharge limits in air and water; these stimulate improved management and innovation. The second is coordination of the Environmental Impact Assessment (EIA) with total emissions control measures to ensure the growth in permits is consistent with the total limits. The third is a system of air and water permits, yet to be implemented in China; permits establish the legal limits that enterprises can be held to. The fourth is penalties that impose real economic consequences for exceeding standards. Achieving a circular economy requires a framework for implementation – this needs to be highlighted by the TF and the Council.

112. The limits to efficient recovery and recycling of materials needs to be taken into account before promoting the approach since cost-benefit considerations will be the determining factors for enterprises. In addition, although the discussion is on the circular economy, there is a need to fully close the loop by considering the underlying scarcity in the ecosystem services and processes. Only focusing on part of the circle in the technology economy leads to a critical omission. Positive incentives need to be created for the sustainable management of natural resources and the provision of ecosystem services.

113. The OECD has been focusing on waste reduction issues since the 1980s and is now studying the trans-boundary movement of hazardous waste; it was tasked by the 2003 G8 Summit to work on material laws and resource productivity indicators. These efforts are related to the circular economy since they deal with the lifecycle management of products and waste management. Circular economy goes beyond recycling however. The OECD is working on improved understanding of the physical
sequence of extraction, transport and use in production and consumption activities of materials before they are re-used, recycled or disposed – as well as on the improved economic efficiency of the waste management sector.

114. A wider focus is required, in that the way the circular economy can support limiting sprawl and reducing waste through improved land use policies, water policies and others. The key to this work is the new thinking on indicators now under development. Sweden is working on the next generation of “Green GDP”, taking into account such factors as upstream efficiencies of consumption. Similarly, water is conceived through the whole hydrological cycle, including plant evaporation. There are greater efficiencies in working on transpiration of water through agricultural crops than there are to be realized in water desalination. On a different circular economy issue, China is in the lead now in implementing full scale pilot projects of multi-storey eco-sanitation in towns and cities – with composted waste materials then used for agriculture and with reduced leaching of nutrients compared to other disposal methods.

115. Most developed countries have had pro-active programs to support cleaner technologies and the results have been impressive. However, many effective technologies are not being introduced in the market – this is after significant funds have been spent on their R&D. The key to this is “green” public procurement, enforced standards and “best technology use” requirements for new industrial permits. These measures will enable new technologies to break into the market.

116. Producer responsibility for their products, from the cradle to the grave, is an important concept for circular economy and has been adopted by the EU. By 2008, car manufacturers will have to recycle all used vehicles. In Denmark, beer producers are responsible for all bottles that are then re-used 40 to 50 times. This is a critical condition for the implementation of a circular economy.

117. Caution should be exercised in order to avoid a legislative maze. The TF recommendations comprise numerous on laws and regulations, while being short on practical implementation measures. Without local capacity, legislation is useless because nothing happens in actual fact.

d) Task Force on Sustainable Transportation

118. Co-Chairs Zhou Wei and Joseph Szylowicz briefed the Council on the results of their work. They underlined the following issues during their presentation:

119. It is timely for China to develop a sustainable approach to transport. Urbanization, industrialization, the rise in the standards of living and the increase in motorized vehicles occurring simultaneously are in turn increasing the demand for transport. Negative impacts on resource use, the
environment and on sustainable development make it imperative to find new ways to meet the diversified demand for transport.

120. By 2020, there will be 14 million new migrants to the cities every year, accompanied by a 13% yearly increase in vehicles on the roads – with a 23% yearly increase in private vehicles alone. The GOC is investing in rail, waterways and highway networks throughout the country. The transport system must provide reliable, convenient, safe and affordable modes for both passengers and cargo. At present, there are significant gaps with 40% of Beijing residents spending over one hour on their daily commute to work, generating significant economic losses. Traffic congestion is Shanghai is estimated to cause a 10% loss in the municipality’s annual GDP.

121. Only 5% of China’s people own private vehicles while a much greater proportion of the population has access to bicycles. Children, senior citizens, disabled people and other vulnerable groups find themselves with few transport options. Efficiency gains could be made on existing transport resources; fuel efficiency in vehicles is 10 to 20% lower here than in developed countries. If no progress is made, our studies show that by 2020 oil for transportation will take up 57% of the total. Vehicles are the main contributors to air and noise pollution.

122. International experience indicate some feasible options for China. Positive externalities must be increased while negative externalities are reduced; integrated transport models can be set up as exist in Paris and Tokyo; congestion management systems can be implemented as has occurred in London and Singapore; regulations on fuel efficiency and the promotion of high-efficiency and alternative energy vehicles can be implemented; emissions standards can be enforced, as has happened in the US and in Japan; stringent emissions standards and the participation of local governments in their enforcement can be initiated. This experience shows China that strict pollution controls and emissions standards can lead to improved technology.

123. It is necessary to internalize the externalities in the cost of transport, as dictated by the “user pay” principle. This can lead to a reduction in the use of private cars and an increase use of public transit – making the latter more economically feasible. The application of a fuel tax is a direct measure to bring this about.

124. The TF’s recommendations have one objective: To establish a safe, convenient, high efficiency, economical, equitable and environmentally-friendly integrated transport system suitable for socio-economic development, the needs of the population and the requirements of environmental protection in China. To realize this objective, the TF recommends that an integrated administrative system be set up which embodies improved decision-making and planning for urban and rural areas; and that a highly accessible, high-quality, reliable and efficient transport network be implemented. Transport modes and vehicles that meet the following criteria should be encouraged: low energy consumption,
low resource use, low pollution, low accident rate and low burden on public finances. Inter-modal connectivity should be incorporated in the system, both domestic and international.

125. The creation of transport corridors and the optimization of the transport network need to be accelerated. This implies improvements in the rain, air and highway corridors, with full play given to the waterways. Express bus systems should be a key focus since they promote better utilization of existing road networks.

126. The TF recommends the following policies be implemented. There should be a two-step reform of the transport system in order to bring about an integrated transport administration. In a first step, different modes of transport would be managed separately while a centralized transport administrative organization or commission is created and established. In a second stage, the transport commission would be mandated with managing the entire transport system including railways, highways, waterways, aviation, pipelines, and urban transport. It would be tasked with the integration of transport safety and environmental protection in all aspects of transport management.

127. Economic instruments should be used to promote greater sustainability of the transport system. A fuel tax should be put in place as soon as possible. This tax would be used to support a National Transport Fund, which in turn would fund projects to improve transport modes that by their very nature require public subsidies – urban public transit, rural road construction, R&D in transport technology, transport for disadvantaged communities and safer bicycle and pedestrian ways. Rail development should be accelerated since it represents a bottleneck. Construction standards need to be set and the marketization of the system must proceed apace. New navigation channels and waterways need to be created.

128. A transport equity policy is required, with improved public awareness of sustainable transport, public supervision of the system and public involvement in transport planning and decision-making. Awareness of transport safety must be improved among the public, and China must strengthen its accident investigation and accountability system. More convenient transport must be developed for vulnerable groups such as rural migrants, the disabled and the elderly.

129. Land use and transport need to be better integrated. Public transport development should be the first priority. Managing mobility effectively to avoid congestion can be done by balancing travel demand and supply.
130. Resource conservation and environmentally-friendly transport can be promoted by improving environmental protection systems and strengthening governmental monitoring and supervision capacities, by promoting the slow growth of transport energy use and in particular oil, by land use conservation and by air pollution controls. This could see a reduction in fuel use by 2050. The TF has included in its report a formulation for emissions standards for cars, and specific policy recommendations in order to improve air quality.

131. The TF has also prioritized its recommendations, identifying the ones which require immediate attention. First, financial measures are needed to set up more sustainable transport; therefore the TF urges as a first priority to implement a fuel tax and to set up the National Transport Fund - a value-added land tax could also support the Fund. The second priority is to improve the coordination and integration among all relevant governmental authorities involved in transport through the creation of a transport commission; this would need to be established at the central and at lower administrative levels, particularly in municipalities. Transport and land use are intimately linked and the best way to improve efficiency is to create an inter-modal system that exploits the strengths of each mode.

132. The key tool recommended by the TF is mobility management; the majority of people in China should see their transport needs satisfied through walking and cycling and other existing transport infrastructure. In addition, bus rapid transit is recommended as the most effective way to enhance public transport. The bicycle is a fantastic technology and it needs to be encouraged, contrary to what is taking place in many of China’s cities. Safety is also a key priority in order to stop the daily carnage on China’s roads. Enforcement of traffic policies, the implementation of lifelong safety education for all transport actors and improved emergency response are needed in this regard. The mobility management approach will benefit vulnerable groups as well as improve energy efficiency and land use.

Discussion

133. It would be useful to take a look at the various taxation measures that are being proposed in numerous TF reports this year in order to get a better handle on their scale and the impact this may have, their sequencing and on the issue of earmarking. It is important to be cohesive and prudent in imposing a variety of fiscal measures. In addition, there is a need for better exploration of institutional arrangements in order to ensure enforcement and management.

134. The World Business Council (WBC) has had a project for five years focusing on sustainable mobility and involving among others the largest eight automobile manufacturers representing 80% of global production capacity. A main conclusion from the Phase I report entitled “Mobility 2030” published in 2004 is that the present mobility system is not sustainable, nor is it likely to become so until 2040. There are 800 million cars in the world today – by 2030 there will be 2 billion and because new
fuel technologies need time to be phased in, the positive impacts will not be felt for decades to come. The challenge is that in most countries, governments do not have the capacity to make integrated decisions. Progress on this front will be slow – mobility will get worse before it improves. As for traffic safety, the WBC project founded the Global Road Safety Initiative, since traffic accidents are the 9th biggest killer; by 2030, traffic deaths will be the 3rd biggest cause and trends indicate a large part of that will be due to China.

135. One recommendation advocates giving different considerations to passengers and freight in the devising of transport strategies. In the EU, the same transport infrastructure is used by both passengers and freight, leading to conflict in traffic flows. The differing needs of people and goods with respect to transport need to be explicitly addressed. Giving priority to freight on highways would be important in the congested areas of China’s coastal areas, otherwise private cars will impede the flow of goods.

136. In terms of energy, the most efficient transport mode is water, followed by rail; the least efficient is road. In China, the largest volume of goods transported by rail is coal, as is the case in the US. Both countries consume large amounts of coal and transport it long distances. In the US, the coal is mined in the west and transported east because the quality of the ore is superior and it leads to reduced sulphur emissions. A recent series of articles in *The New Yorker* magazine is commended to the attention of the members on this very complex issue.

e) **Task Force on Economic Growth and Environment**

137. Council Members heard the following report highlights from TF member Qi Jianguo and Co-Chair Peter Bartelmus.

138. The objectives of the TF were to develop economic indicators to measure local governments performance; to study the systems used to look at environmental costs of economic growth, better known as “green accounting” or “green GDP” systems. The TF was set up in April 2005 and started its work program the following month. Chinese TF members have come up with a system of indicators for the evaluation of local governments while International members contributed knowledge on the use of certain similar tools in the West.

139. In China’s current administration, various performance evaluation systems are in effect; the report focuses on the indicators used by higher levels of government to evaluate the performance of lower levels. The evaluations’ purpose traditionally is to promote faster economic growth; and the indicators chosen must be measured objectively while reflecting government’s function and being
sensitive enough to register change between evaluation periods. In order to assess the achievements of local governments in the area of sustainable development, there is a need to ensure social, environmental, ecological as well as economic factors are captured by the indicators.

140. During the initial phase of the TF work, hundreds of indicators were examined in order to select the most reliable, feasible and representative; the set of indicators we now propose comprises 28 separate measurements. There are four broad categories of economic indicators. To measure economic growth per se, we propose to use the GDP growth rate, the fiscal revenue growth rate; to measure improved standards of living for people we propose the weighted growth rate of people’s income, the per capita area for urban housing and the per capita area for rural housing. To measure income distribution, we suggest using the ratio of per capita income between urban and rural areas, the urban unemployment rate (as determined by survey), and the percentage of rural population living below the poverty line. To measure growth efficiency, we propose using energy productivity and the productivity of water resources.

141. There are three broad categories of social development indicators. To measure infrastructure and public security, we suggest using natural gas usage rate in urban areas, access to potable water in villages and townships, the completion rate of the nine-year compulsory education program, the number of hospital beds per thousand population, the per capita length of highway per square kilometer, the per capital area of paved roads in urban areas, an indicator of production safety, the rate of exposed criminal cases and the rate of solved criminal cases. To measure the public services provided by government, we propose one indicator only: degree of public satisfaction. To measure social security, we suggest using the rate of coverage for social security in urban areas, and the rate of coverage for medical insurance in rural areas.

142. There are three broad categories of ecological and environmental indicators. To measure ecology, we propose to use the percentage coverage of vegetation and the rate of change in degraded soils. To measure the environment, we propose using the change in the rate of discharge of industrial solid wastes, the change in the rate of surface water quality, the percentage of GDP used for environmental protection, and the ratio of urban atmosphere that is up to quality standards each year. To measure the circular economy, we propose to use the rate of resource recycling.

143. The TF suggests adding two negative indicators of risk, namely the number of group accidents and the number of environmental accidents. There are good existing data on these events in China.

144. The TF conducted pilot studies of this system of indicators in five cities; due to data problems, results are presented only on four of the cases. The first city was found to have a relatively low score and to exhibit slow change; the second has better overall situation and is improving; the third is not stable due to changes in its boundaries and the inclusion of five very poor rural counties in the
municipality; the fourth shows some fluctuation but with consistently high scores. These findings correspond with the TF’s qualitative analysis of the municipalities’ general conditions.

145. The TF encountered some technical problems during its work. The weighting of the indicators proved difficult since different weighting systems will yield different scores and rankings. It is suggested that the weighting system chosen reflect the public’s preferences. The system will provide scores based on a moving 5-year average to eliminate some biases and allow for intra-regional comparisons.

146. On performance indicators, the TF recommends that statistics be improved at the municipal level in order to ensure the basic data for indicator calculations are available; moreover, these data must also provide information on material flows. In order to avoid biases in reporting, the TF recommends independent institutions be set up to collect and compile data; at present most data are not reliable. Investigation teams could also be sent out to check on local performance. In addition, it will be necessary to establish a solid system for the monitoring and collection of data on environmental factors; at present, local authorities do not have the capacity to monitor or report on many of these.

147. Internationally, there is a wide range of performance indicators and indexes which embody a variety of concepts. There was no time for the international members of the TF to consult and review the work done by the Chinese TF members. The present report is only preliminary; work will continue and final findings will be presented to Council during the 2006 AGM.

148. The international team came to two conclusions. China’s economy is in transition and the role of government is changing. The indicators being developed at lower administrative levels and the more aggregate information emerging from the national accounts are complementary and should be developed in order to allow for linkages and comparisons. In the process of marketization in China, there are new players as decision makers and economic agents – households and enterprises. This requires the collection of different types of information, as does the international links China now has with other countries. Therefore, the information required goes beyond what is needed to assess local government performance.

149. Macro data are needed on the impacts of economic growth on the environment, on the effects of wealth and income distribution, on the effects of taxation and other economic instruments. This can only be done if the “green accounts” are transparently linked and share definitions with the well-established national accounts. Civil society processes of consent and dissent also need to be monitored. Information is needed from the “green accounts”, measuring the significance of environmental impacts.
compared to economic benefits. The evaluation of local government performance is part of this holistic picture proposed by the international team. A common approach has yet to be developed.

150. Future work for the TF is to focus on a combination of indicator and green accounting work – thereby evaluating the performance of government policies, not just officials. The TF will also look into the statistical reliability of the proposed indicators. The proposed approach may have a set of core indicators with different lists of indicators depending on regions of the country and the institutional setting. The TF believes it is possible to develop a monetary and physical green accounting system in China and will work on its feasibility and usefulness.

Discussion

151. People with experience in business know that the amount of taxes collected by government is not a good indicator of economic growth.

152. The OECD has among its members a common approach and framework for developing and using environmental indicators. Some of these are specific to given sectors. The organization has also been using quantified criteria and formulae for transparent performance assessment of government. There are extensive documents on aggregate environmental indices, including the methodologies used – there is such a thing as imprudent aggregation. China’s efforts to develop such a system are to be supported. Material flow accounting work to develop some form of “Green GDP” is underway in many OECD countries, but the road to such a measure is a long one.

153. China should be bold and choose very few but representative indicators, powerful enough to reflect the dimension, direction and the rate of change in complex systems. Caution should be exercised when creating indicators that are not policy-relevant and will therefore not be used. Consideration must also be given to the paucity of reliable basic data needed to build the indicators. The priority should be to develop indicators for policy information that is needed urgently.

154. Indicators should distinguish between stocks and flows, especially in the case of depleting natural resources. India used to be one third forest, it is now one fifth; this kind of reality needs to be reflected in the green accounts as a deficit in natural capital.

155. Green accounts are required of companies in Denmark – something that was resisted at first but is now appreciated by companies. The reporting is done on inputs, namely energy use, water use, raw material and chemical inputs, and on outputs namely emissions, wastewater, degree of material recovery and product. These annual reports are publicly available and support wise consumer choices while fostering healthy competition among enterprises. Denmark also assessed its policies through an
EIA process – this has since been eliminated. It is important to assess the environmental impacts of government policies and programs.

156. The purpose of indicators is to provide tools for decision-makers. They must be relevant, simple and accessible. There could be value in looking into the Yale University ESI indicator which is now in its second stage. There could also be value in examining the sustainability indicators that some European countries have put in place.

157. The presently proposed indicator system should be tried in the pilot projects that the GOC is implementing now in 3 provinces to assess the performance of high officials. Actual operational experience could lead to better results. Simplicity will ensure ease of use.

158. Some of the most powerful social indicators are the rate of female literacy and the rate of child mortality – these reflect a range of realities. The TF should consider including these in the social set of measurements.

159. It is important to get these results in the public eye and ranking the players is one way to attract attention and motivate them to make progress. It is also important to look at impact indicators and determine the factors which contribute to the results. Child mortality is a powerful indicator, but in some cases the main factor leading to higher rates is a degraded environment, be it contaminated water or soil, polluted air or exposure to toxic materials. In large countries, regional differences are significant and it is also necessary to use regional indicators.

160. Indicators can provide powerful tools for decision-makers. Oil companies were resistant to removing lead from gasoline until data were available on the link between lead and child development. This led to outcry and then political action.

161. The Human Development Index is powerful because it comprises three elements. The equivalent is needed for the environment. A powerful indicator for cities is air pollution. Water quality also captures a number of phenomena. One could also conceive of a basket of indicators, with certain indicators applying certain years, or for certain sectors or levels of administration, to reflect changing priorities and regional realities.

ITEM 10. DISCUSSION AND APPROVAL OF THE RECOMMENDATIONS
162. With Vice-Chairs Måns Lönnroth and Robert Greenhill presiding, the Council recommendations to the Government of China for 2005 were discussed and approved. During the course of these deliberations, members made the following substantive points.

163. One conclusion has run through the Council’s discussions and most papers presented; it has to do with integrated decision-making involving multiple agencies. There should be an element added to this recommendation: that there be more comprehensive criteria to evaluate officials’ performances. Mayors should not be held up to account only for their economic performance, but should also be assessed on results regarding air pollution, water quality, waste water treatment, rational land use and circular economy implementation, in particular the handling of solid waste.

164. The whole issue of climate change and its impacts on resource management, especially water, does not come through in the present draft. New standards will have to be adopted to take into account potential variability in climate.

165. As China is moving towards a market economy, it is becoming less centralized and enterprises are now more central to any implementation of measures or regulations. The interaction between governments at the municipal level and enterprises is now a more important issue – there is a need to find new modalities. Yet business as a sector is absent from the draft recommendations. Moreover, the Council does not have a member of the Chinese business community on board. It is crucial that this voice be heard.

166. Some financial engineering will be required in order to create market opportunities for sustainable cities – cities where the tertiary sector of the economy is the engine of growth. This goes beyond pricing and fiscal measures. Market opportunities must be created in order to generate improved housing, public transport and so on. The recommendations might also indicate the time frame that should be considered for the GOC to take action; this would help in clarifying priorities.

167. There is at present a dearth of Chinese research on climate change; the Council needs to underline the need for additional research and for flexibility in any arrangement made because of climate variability. Moreover, the last section needs to be more explicit on the need for more liveable communities, architecture and urban planning; our cities need to be on a human scale.

168. It would be useful for Council to hear from the Minister of SEPA on what past recommendations have proven useful to the government, and what present proposed recommendations are most likely to be used. Government leaders typically can only absorb three key messages; they are also usually interested in economic growth, not on the environment and therefore economic arguments must be used to make that case. For this year’s recommendations, we may want to emphasize cuts in water consumption to address critical shortages, energy consumption cuts in order to reduce
dependency on oil imports, and efficiencies in natural resource consumption in order to reduce production costs. Then one example of actions to take should be provided for each the fiscal, financial and administrative area.

169. Emphasis is important in the presentation of the recommendations. Liveability of cities should be pushed to the top of the list we provide. This would set the framework for the following key ideas dealing with integrated, regional planning. Specific recommendations must be made on immediate action which would yield the greatest impact on issues of the greatest urgency.

170. GDP at present is the only indicator that really counts in the performance assessment of local government for each FYP. The GOC request for a greening of performance indicators corresponds with SEPA’s interest in greening the GDP. But this responsibility should not be put solely on the Environment Ministry – all sectors must take responsibility and report on results. The recommendations need to be stronger on the issue of enforcement and penalties. China has demonstrated that when it wants to take action, as there was in the case of the logging ban following the floods of 1998, it can achieve compliance. In addition, the recommendations dealing with implementation of environmental measures should specify the need to set time-bound targets, which have proven effective elsewhere.

171. The sequencing of actions is key. Priority should be given to taking control of land use through stringent regulations. The other action that is essential is ensuring a high proportion of citizens can get to work by foot, bicycle or public transport, since low income people have few other choices.

172. In thinking about how to translate the Council’s main ideas into tools the GOC can use, the Council should emphasize the following: rational pricing, or the inclusion of externalities in the full cost of goods and services; incentives for official performance as revealed by environmental and other indicators dealing specifically with energy and water. However on controlling urban sprawl, the Council will need to consider the kind of practical recommendation to provide, since municipalities have an incentive to sell land in order to finance their operations.

173. A key tool would be to enforce stringent criteria for creating industrial parks, since this is generally where most land is wasted. This land in peri-urban areas is seized from farmers with little compensation – this has caused scandals in China in the past few years. A solid compensation regime should be put in place by the GOC, which would also serve to control the speculative fever on land. Norway is considering a tax on land use to address this issue. On sensitive ecosystems such as wetlands, the land use decision must be referred to the national government – regional governments are generally too short-sighted to take appropriate action.
174. The Council needs to send a clear message on the priority to create cities for people and not for cars; this implies a solid public transport system and a reduced footprint for cities through the circular economy. Tenure needs to be more secure for citizens and businesses, be they owners or tenants, in order to generate investment. The Council should also resist advocating centralized planning – much of this can be regionalized and it should be done in a bottom-up manner.

175. The accelerated pace of urbanization and the number of citizens who have the means to purchase prime real estate or pay high fees can make market-based land-use controls ineffective. Switzerland has now determined that the conversion of agricultural land into residential development requires a 20-year process; this promotes considered action. Moreover, an offset mechanism forces developers to provide the same land area in wetland, forest or other natural space as is used for their project.

176. Rural to urban migration will not be stopped in China; migrants look for low-cost housing in peri-urban areas leading to the development of slums, thereby reinforcing segregation. The alternative is to increase density in the city core, ensure a stock of good quality low-cost housing and provide improved quality of life through services to low-income residents. However, the pressure to keep rents low in these areas will create a difficult tension for municipalities.

177. There is a certain tendency for the Council to recommend command and control mechanisms for enforcement of laws and regulations, or for the promotion of desirable behaviour. It would be more effective to recommend sets of incentives to achieve the same result. Economic agents need to be recognized in a positive way when they do the right thing.

178. The recommendations should make clear best practices in other countries since peer pressure can be a powerful motivator. In addition, Council recommendations should be publicized in order to create public pressure on government to take action. Moreover, the impact of the Council’s recommendations should be assessed periodically in order to ensure the AGM is not a one-off event. In discussing circular economy concepts in the recommendations, care should be taken not to dilute producer responsibility for the whole lifecycle of the product – otherwise the consumer is burdened with the whole cost which is recovered in the price.

179. Ten years ago, China was a net exporter of oil and gas; it is now the world’s second largest importer of fossil fuels and it is responsible for 40% of the annual growth in the use of these fuels. Cutting subsidies and working on pricing are clearly emphasized in our recommendations, as are fuel taxes and full cost recovery-based water pricing. Equally important is the recommendation to provide tax incentives for fuel-efficient cars.
ITEM 11. DISCUSSION ON THE FUTURE DEVELOPMENT OF THE CCICED

180. Vice-Chair Xie Zhenhua presided over a discussion on the future of the CCICED beyond Phase III. Members emphasized the following issues during their remarks.

181. The impact of climate change is a key issue for the Council’s consideration in the next phase. It will be necessary to further define sustainable development in this context.

182. Energy security is key to China. This should be further examined by the CCICED from both the supply and the demand perspectives. Energy efficiency gains have proven an important new supply source for Europe and could prove so for China.

183. Over the past three phases, the Council has operated through first the Working Group and then the TF mechanism. The two approaches need to be compared in terms of effectiveness, communication and cooperation. Cooperation among international and Chinese TF members has not been as good as the Working Group mechanism. Moreover, Working Groups operated over a number of years so there was time to implement and assess pilot projects with key relevant government agencies at various levels – a very important tool in a country as complex as China. The working mechanism for Council substantive research should be reconsidered for the next phase.

184. The energy nexus has been neglected during this phase of the Council; it should be a focus of the next phase. For both urbanization and transport, energy is the primordial factor to address. It is key to have the Council be a forum for discussion of new energy supply sources and energy technologies. Power distribution is also an important factor and integrated planning is called for in China. There has been progress, but the country is not yet taking a holistic approach. There is still chaotic development in China’s energy sector.

185. The GOC is planning for an expansion of the economy, with GDP quadrupling between 2000 and 2020. A key issue is the sustainability of this growth and how that can be achieved. The Council is more essential to China than ever before. But access to China’s top leadership implies the Council must remain strategic in its recommendations and avoid the temptation to get too detailed. The Council has also been a forum for cross-ministerial communication – something that is badly needed in China as elsewhere. In order to ensure environmental issues are mainstreamed into the main work of government, the role of the NDRC on the Council is critical. In addition, the development of China is
increasingly influenced by factors outside its borders; China is now more closely linked to the global economy. This international dimension should also be reflected in the Council’s next phase.

186. The government of Norway feels the CCICED is a unique forum and commends China for its openness in supporting such an endeavour. It has led to greater integration of environmental issues in the functioning of government. A more global context is provided to the examination of key environmental issues. The inclusion of Chinese people from the business sector and from non-governmental organizations (NGOs) would be welcome. If the GOC feels the Council is useful, Norway is prepared to support the 4th phase of its work.

187. It would be useful for the Council to have other agencies of the GOC besides SEPA to put forward questions and express priorities and concerns. Likely issues to require the attention of the Council in the next phase are: climate change, genetically-modified organisms in food products and in the environment, and other international issues. There should be more monitoring of the impacts of the Council’s work through reporting from relevant authorities to the Secretariat. It would also be important to ensure the TF reports be made public in order to expose a greater number of decision-makers and other agents to Council views.

188. The work of the Task Forces has become harder; it is no longer sufficient to simply expose China to international thinking, technology and best practice. The problems are broader in scale than international experience, and require made-in-China solutions. Yet most TFs have less than one year to come up with a report. Efficiency in launching a TF must be achieved in order for the mechanism to work. Improved cooperation among international and Chinese TF specialists will be needed. Some of the issues that have been examined over the past eleven years may need to be studied again since the context has changed. Other issues that have yet to be addressed and that are important are: China’s impacts on its own coastal waters and beyond; biotechnology and its link to sustainable development; environmental justice – that is issues of equity in bearing environmental costs, eco-compensation and so on; climate change and the required adaptation strategies; and the role of the financial sector in promoting sustainable development.

189. For the Council to continue playing an effective role, some changes need to happen. Foreign and/or Chinese companies operating in China, NGOs and more technical experts should be represented; if there is to be a limit on membership, experts could be included in AGM sessions as special guests. There is a need to hear more from GOC ministry representatives during the deliberations of Council; this would inject more realism while ensuring the Council remains responsive to GOC needs. One added issue to consider for 4th Phase work is university education and how academia can serve the needs of sustainable development.
190. There have been numerous new laws implemented in China; some older laws have been revised. There is a need to consider legal inconsistencies, contradictions or duplication. Some European countries have started this process and it may prove useful for China as well.

191. The role of international experts as advisers to China needs to be reconsidered given the high level of sophistication in the debate on sustainable development in China at present. International members are a bridge between China and the world on environmental issues and can explain why China’s footprint is increasing on the global environment, and the challenges China faces in dealing with these issues. The Council is also a powerful tool to make China understand the impact it is having globally – the logging ban in China is leading to heavy deforestation in other countries. China needs to understand how it can play a different role in the future on the global environment stage.

192. It is now better understood that environmental and social policies are central to the quality of economic growth. The role of the Council needs to be determined by the GOC since it knows how to get value added from this mechanism. The Council provides China a window on the outside world to understand the issues we all confront; and it provides the world a window into China and its challenges and efforts. In order to improve the effectiveness of the Council, it would be useful to develop a scorecard so that year to year, members would have an assessment of progress on various relevant issues and indicators. For discussions to be more productive during the AGM, it might be advisable to give certain members the responsibility to lead off the debate and frame the discussion for others.

193. Often the Council does not get to the heart of issues in its debate because of the range of topics covered and because of the scope and complexity of each one. The key to providing correct policy recommendations to government is solid knowledge and research. More work could be done to ensure this kind of research is summarized or conducted for the Council. Large numbers of people in China’s and other countries’ academic circles are working on these issues; the Council needs to access this work to a greater extent than is happening at present.

194. It is important as a Council to have sufficient time to discuss the topics at issue and to consider the recommendations carefully. Useful suggestions have been made on broadening membership and on the need to follow through on the results of the CCICED’s work. However, the Council should think of providing more advice on how to implement policies.

195. The TFs needs to interact in more effective ways with the relevant leading educational and research institutions in China while it is compiling its report, and afterwards in sharing the overall findings through symposia, workshops and publications. On the issue of climate change, the clarification of China’s role in the post-Kyoto policy and enforcement environment will be important. These are contentious issues, and China may want to reach bilateral agreements with other countries, it may want to engage in emissions trading or use other tools. China’s more active role in the biodiversity
conservation and anti-desertification arenas is also of interest. China is facing problems in these areas but it also has a rich experience to share globally. The Council could assist China become more integrated in these international fora.

196. The Bureau has already been discussing future directions for the CCICED. The TF headed by Ms. Huguette Labelle and Dr. Song Jian will contribute to the development of the next Phase, as will the LEG. This discussion also adds to the material for the Bureau to consider.

ITEM 12. CLOSING CEREMONY

197. Vice-Chair Robert Greenhill presided over the closing ceremony of the CCICED’s AGM for 2005. During his closing remarks, Vice-Chair Xie Zhenhua summarized the proceedings and made the following points.

198. Urbanization in China is now entering a critical phase; how this progresses over the next 15 years will affect China’s development for the next 50 years. If China does not choose the right, sustainable path, there will be negative consequences despite GDP growth – consequences such as urban sprawl, social inequity and environmental problems. Moreover, rapid urbanization in China will also have impacts on the global environment. China is facing challenges with shortages of key resources. Unless China changes the traditional patterns of consumption and production, water, air and other environmental factors will continue to decline in the cities. Income gaps and poverty as well as unemployment and rigidities in migration will constrain GDP growth. No other country has faced the challenges China is encountering at this time.

199. The Council’s analysis of these issues is that there is still a bias for economic growth while not enough emphasis is being put on environmental protection. There is still a lack of understanding on the nature of sustainable development among leaders and technocrats in China – the performance of local officials is still only assessed on the basis of economic growth. China needs to resort increasingly to pricing and fiscal mechanisms to promote greater sustainability; a strong legislative and enforcement system is needed to promote change.

200. The recommendations of Council this year focus on energy and resources conservation, cleaner production and other measures to promote the development of environmentally-friendly cities. Performance indicators for local governments have been proposed and include measures of social equity and environmental sustainability. The Council wants to see improved regional planning in order to put municipal development in a more holistic framework. Recommendations deal with implementing the circular economy, making progress towards the use of “Green GDP”, and promoting
greater resource conservation – for example through greater heating efficiency in buildings. There is also a need identified to protect the historic and cultural characteristics of cities.

201. Vice-Premier and CCICED Chair Zeng Peiyan expressed his support for a 4th Phase of the CCICED during his opening remarks. The Council has played a role in the modernization of China, and in the promotion of environmental protection and sustainable development. Progress needs to be made on the recommendations put forth to government, on the development of pragmatic solutions instead of on the analysis of problems, and in the functioning of the Secretariat and of the Canadian Office.

202. The 2006 CCICED AGM will focus on 
xiaokang
and on the scientific approach to development. The following Task Forces will report to Council: Environment and Development Policy Review, Environmental Governance, Economic Growth and Environment, the Future of the CCICED, and Eco-compensation Policy Mechanism. Council recommendations on these issues will be key to the implementation of the 11th FYP. The 5th Meeting of the 3rd Phase of the CCICED will be held in Beijing from November 10th to November 12th 2006.

III. MEETING WITH PREMIER WEN JIABAO

203. Premier Wen Jiabao met with international CCICED members at the Diaoyutai State Guest House on the last day of the AGM. The Premier opened with welcoming remarks and engaged the presenters, Co-Chairs Robert Greenhill and Måns Lönnroth, in a lively discussion. The Premier then solicited further opinions from other guests. The following notes were made during the course of this meeting.

204. Premier Wen Jiabao: I welcome old and new foreign friends to China. You are all concerned with environmental protection and with China’s economic development and progress, which is to say you are all good friends of China. The fact that this organization started in 1992 and has been going for more than ten years shows how vital it is. It also demonstrates the extent to which foreign friends care about China’s reforms, economic development and environmental protection. The Council gives us in government the opportunity to hear the views of experts – so I want to use this precious time to listen to your views, your questions and advice.

205. Robert Greenhill: I am honoured to serve as the new Vice-Chair of the CCICED. I have been impressed with the frankness and the quality of the debate during this Meeting. It has demonstrated the uniqueness and value of this Council and the open and serious way in which China is tackling environment and development. The Council is very pleased at the high attention paid to the
environment in the 11th Five Year Plan. The Council believes that this plan clearly identifies the importance of the environmental problems and we agree with the focus on circular economy as essential to the promotion of a harmonious society. We have reviewed your programs and policies and we agree with them, including the important goal of reducing energy use per GDP by 20% over the next 5 years.

206. WJB: We have in fact set ourselves two targets – one dealing with economic growth, and one dealing with energy conservation. The significance of these targets goes beyond energy conservation for all forms of energy on earth – it goes to the heart of environmental and ecosystem protection. This is the first time we integrate this environmental element in our planning process. This embodies new ideas of social and economic development. We want to build a society that is environmentally friendly and where there is harmony between humanity and nature. This shows we have leapfrogged in the evolution of our development concepts.

207. RG: This is very important for China. This year’s focus on sustainable urbanization is certainly most relevant for the future. Our experts say that the investments, design and construction of China’s cities, buildings and infrastructure over the next 15 years will have an impact on China’s development over the next 50 years. I would like to focus on key policy recommendations that will be useful to you and that are feasible to implement.

208. WJB: You are correct, but our planning and zoning and urbanization will not only affect the next 50 years but in fact the coming 100 years. If we make a mistake, the losses incurred will not be recovered.

209. RG: The experience of our experts is that to identify problems and suggest correct policies is well and good, but it is not enough. Balancing economic growth and environmental sustainability requires the right incentives and the stringent enforcement of standards – otherwise the balance will always tip in favour of economic growth considerations. With the right incentives and performance measures in place, change can be effected in the behaviour of individuals and administrators.

210. WJB: Frankly, a lot of our officials are not sufficiently aware of the gravity of this issue. Our present planning processes do not yet contain strong enough measures or incentives to promote sustainability. I am eager to hear your suggestions.

211. RG: The most powerful measure is pricing. Scientific pricing of water and energy to reflect the true costs of environmental impacts and the cost of developing new supplies is essential in order to
change the behaviour of individuals, companies and government officials. In addition, water prices need to be set rationally across whole river basins.

212. WJB: In China we find that the most precious commodity is the one that is selling for the cheapest price.

213. RG: Our second suggestion is for you to focus on the strict enforcement of high energy efficiency standards for new large public and private buildings. Today, less than ten percent of buildings have high energy efficiency. Large buildings being built in the next ten years will determine the energy efficiency of an entire city for the next 50 years. This will have the double advantage of long-term energy savings, and further development of a domestic environmental technology sector.

214. WJB: This point is correct. Now building construction in our cities is only concerned with the look, the design, but not energy efficiency, including heat conservation. Cutting down on waste of the buildings’ heat, water, electricity, ventilation – all this must be addressed in a holistic way.

215. RG: Incentives should also focus on supporting investment in mass transportation – particularly transportation in small and medium sized cities. These cities have a role to play in attracting more people and businesses away from the large cities where growth is now unsustainable. However, small and medium cities have trouble attracting new residents because of the poor environment, infrastructure and amenities they have to offer.

216. WJB: Yes, China’s large cities cannot be allowed to expand – this would be too much of a burden. We must develop small and medium sized cities, while our large cities will assume the role of development hubs. Small and medium cities in China have trouble with growth at present because of the disparities in economic development that we have experienced. Most of our past investments have been channelled to the large cities. We are also determined to focus on the development of public transport in our cities in the coming years rather than promoting the use of private cars.

217. RG: I am sure all of us here agree with these measures. I would now invite Council co-chair Måns Lönnroth to address you.

218. Måns Lönnroth: Mr. Premier, I will start with a simple phrase: market economies produce ‘GDP plus 3.’ The ‘plus three’ are: environmental degradation, urban sprawl and social disparity. The key message is: curb urban sprawl. Urban sprawl is costly, inequitable and ruins the opportunity to protect agriculture, ecological services and cultural heritage. It makes sustainable transportation impossible. Chinese cities should save land and develop all available ‘brownfields’.

219. WJB: I hope I can reverse the present trend while I am in office.
220. ML: Government can finance public transport, a fundamental part of sustainable cities. This is as true for the mid-sized cities as well as for the large.

221. WJB: Now in our cities, one of the four lanes of traffic is reserved for buses and yet this lane is often invaded by private cars. It would be better if two of the four lanes were for public buses.

222. ML: Several revenue sources that mayors and urban administrators now rely on work against sustainable urbanization. One example: by basing local revenues on taxes on automobiles and from land sales, the longer-term push is inevitably towards sprawl and roads. Making cities work depends upon local leadership and access to adequate financial resources. Today’s incentives for mayors and local officials are too weak to work for sustainable urbanization.

223. WJB: They are not only too weak, they are in fact disincentives. Mayors see only their short-term gain, not their long-term future interest. And the supervision from higher-level authorities see only immediate results, not future risks.

224. ML: China needs clear and simple indicators for environmental performance of mayors and local officials, based on reliable and comparable data. Examples are indicators of air and water quality as well as more specific measures such as public transport’s share of total transport usage. We will continue to work on this topic, reporting again next year. But performance indicators on their own are not enough. Mayors who excel should also be officially recognized and rewarded.

225. WJB: Two years ago following SARS, a lot of local leaders only knew about GDP – they had not notion of CDC (Centres for Disease Control). Now they know that CDC is more important than GDP. If we add indicators of air and water quality in the future, this will be a big improvement.

226. ML: Mr Premier, I want to conclude with culture. A civilized city has to protect heritage architecture and natural, sacred and historical features.

227. WJB: This is a very important point. What is happening in China is that people tear down heritage buildings and build fake ones to replace them! This is something we cannot accept.

228. ML: Cities for the future are cities where scientific innovation, the arts, and civic pride flourish. These are key elements of sustainable cities. When citizens rich and poor value neighbourhoods, take pride in their parks and green spaces, and have equal access to high quality schools for their children, then citizenship and cohesion will thrive. These are some of the key observations in this year’s Council. The longer report we have prepared for the State Council presents the full set of key recommendations
from the Task Forces and the Annual General Meeting. We look forward to hearing your views on China’s sustainable urbanization.

229. WJB: I want to have those documents summarized and distributed to local governments for their reference. Now, does anyone else have anything to add?

230. Sir Crispin Tickell: I want to enlarge on the apparent conflict between economic prosperity and environmental protection – which is a conflict only on the surface. In the UK, we have held a recent inquest on the future of cities and we found that officials, especially at the grassroots, were more concerned with short-term commercial interests rather than the long-term good health of the cities and their citizens. We have developed a set of indicators dealing with long-term environmental sustainability and social welfare. I am interested in similar developments in China given that the Council promotes two-way communication on these issues and we can learn from each other.

231. WJB: We have asked questions about indicators to evaluate the performance of local officials but we have not yet found optimal solutions nor are the indicators being used in earnest. You bring forward a good suggestion and we will look into how in local administration environmental standards can be used to measure official performance.

232. Huguette Labelle: As we review the work of the Council and we see how we can best continue our work of giving advice, we feel the area of climate change is of relevance.

233. WJB: In fact we have experienced more climate-related disasters such as hurricanes this year in China.

234. HL: We are all in awe of the economic growth and rapid pace of industrialization of China. Nowhere else in the world has this happened at such a pace. There are a lot of positive aspects, but growth has had grave impacts on the environment. We wonder whether or not you feel this area of inquiry significant enough for the Council to tackle?

235. WJB: Industrialization is the single most important factor leading to climate change. China is using coal combustion to power this industrialization and this is contributing to carbon dioxide emissions. China supports the Kyoto Protocol to combat climate change, therefore we are working hard to upgrade the technologies in our coal-fired generators and boilers in order to reduce those emissions. It is rare for us in Beijing to see smokestacks belching black smoke. But of course, China is a big country and changing this will require more hard work. We cannot wait until we finish this process of industrialization to clean up the environment – to do this would be too costly. Rather, during the process of industrialization we must protect the environment, and the sooner the better.
236. HL: We hope that China can take a leading role in this area, not just domestically but globally. We are all affected by climate change, in all countries. Solutions have yet to be found. We need to balance economic growth and environmental protection for the planet. China is an important player now and can assume some leadership in this area.

237. WJB: Our global environment is important and all countries share a responsibility to protect it. China is a big country with a large population and is still developing its economy, therefore we must shoulder our share of the responsibility. Over the past dozen years, we have recognized the importance of this issue since we have supported the work of the China Council. This is a way for us to show our determination to shoulder this responsibility. We know the road ahead is mostly uphill and we are facing many dilemmas. However, we must have fast growth to reduce poverty, promote employment, pay for health insurance and education. We also have to increase our investments to protect the environment and curb pollution. These are not in conflict.

238. You chose a good focus for your discussions in the theme of sustainable urbanization. The Council has provided us with in-depth research, not vague ideas. China’s urban development is occurring very fast. Since our reform and opening policy, we have gone from 200 cities to some 600 – and we have progressed from 2,000 towns to some 20,000, a ten-fold increase. Our population used to be 80% farmers. Now, 500 million of our population lives in cities. This pace of change brings with it developmental and environmental pressure.

239. We must adopt correct thinking on economic and social development; we must practice environmentally-friendly development. We must develop our cities in ways that ensure energy saving and environmental protection. Our development must bring about the kind of growth that conserves energy and promotes a circular economy. At the same time, we must support this process with solid policies and legislation. There must be incentives and penalties for local officials.

240. We recognize all this now, but to actually make this work will take a lot of effort. But we are determined to do this, we will not waver. If we put this in motion during the 11th Five-Year Plan and promote sustainable urbanization, we will have made significant progress.

241. Your Council has given us very good recommendations. We will consider them carefully and we will in the future listen to your advice. One of you referred to environmental protection and culture as linked. In history, we find that some civilizations have risen, some have fallen and this movement has always something to do with the relationship between people and nature. In ancient China, our philosophy was one of unity between man and nature. Now we refer to this as the harmonious relationship between humans and nature. I will end with one point. I once heard said that when
people hail victory over nature, that will be the time for nature to retaliate. I have always kept this in mind. Thank you very much.

IV. RECOMMENDATIONS OF THE COUNCIL

242. Recommendations of the CCICED to the Government of China

GENERAL REPORT OF POLICY RECOMMENDATIONS

OVERVIEW

On November 18-20, 2005 the CCICED Annual General Meeting was held in Beijing. It discussed the theme of Sustainable Urbanization and put forward policy recommendations on the basis of the work of the five Task Forces\(^1\).

The next 5 years will be critical for China to build a well-off (Xiaokang) society in a comprehensive way. More specifically, the path chosen for China’s urban development will determine all aspects of environmental protection and resource use in China, and will also be of global relevance.

Urbanization in China has increased the living standard of urban as well as rural residents. However, serious problems resulting from rapid urbanization have emerged. Natural resources are increasingly in short supply. Problems such as pollution, excessive use of groundwater and waste have worsened the environmental situation and led to shortage of water resources. The tension between the great demand for urban land on the one hand, and the shortage of suitable areas for urban development on the other, is increasingly acute and leads to a widespread increase of urban ecological deficit. Authorities have not done enough to raise efficiency standards. Energy diversification and efficiency is unsatisfactory, yet there is a fast growing demand. Initiatives for sustainable transportation in cities are not keeping up with needs. Rapid growth in private vehicles will further exacerbate this situation. Air and water quality in cities is a major problem, with many negative regional effects. Industrial resource efficiency is still very low by comparison to international standards. While China’s cities are making a major contribution to the nation’s poverty reduction, they also contribute to the dramatically expanding gap between the rich and the poor. There is increasing evidence of extravagance which is troubling for any society. With the rapid growth in urbanization, and the expanded rural migration to cities, increasing inner city poverty may become a matter of significant concern for the future. These are some of the key

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problems examined by the Task Forces and the Members of the Council during the 2005 Annual General Meeting.

Policy Recommendations are presented by the Members and Experts of CCICED with the objective to promote urban centers that are viable from an economic, environmental and social point of view. Cities are only attractive living and working spaces if their multifunctionality reflects the needs of all citizens. The following 4 main recommendations are made with this in mind. A summary of individual Task Force recommendations is attached as Annex.

GENERAL RECOMMENDATIONS ON SUSTAINABLE URBANIZATION

1. Plan scientifically for sustainable urbanization through policy setting, implementation and enforcement

   • More scientific understanding and measurement on environmental resilience and carrying capacity in urban and surrounding areas are needed. Avoiding urban sprawl, thus preventing cities from expanding in an excessive and uncontrolled manner which has negative environmental and social implications, is of utmost importance.

   • Planning for sustainable urbanization requires effective use of new tools such as environmental impact assessment, geographic information systems, and improved recognition and application of environmental protection laws. The purpose is to be able to direct decisions away from exceeding local and regional carrying capacity, to avoid negative impacts on poor people, and to promote a positive environment and development outcomes.

   • The impact of climate change in terms of variations of rainfall, temperatures, extreme weather events and sea level rise in coastal areas should be addressed at the planning stage through mitigation and adaptation measures.

   • Housing should be kept practical and highly efficient in terms of material consumption, as well as energy and water use. There should be strict controls on the amount of land allocated for luxury homes. After appropriate environmental impact assessment, the use of remediated brownfield sites for housing should be given priority over greenfield sites, to avoid affecting natural and agricultural areas.

   • Sustainable urbanization planning should recognize the great variety of landscapes and cultural settings in which Chinese cities and towns will develop. Regional development should be optimized by clear zoning for settlement and urbanization. The risk that in 20 years there will be “1000 cities, all looking the same” needs to be avoided. There is a need to stop the loss of cultural wealth, biodiversity, natural lakes and rivers as well as wetlands and forests, as a consequence of homogeneous urban planning and development.
• Regional planning should ensure a better coordination in the development process of regions; in particular by addressing issues of trans-regional environmental pollution. Integrated regional planning efforts require central government facilitation to set in place a coordinated regional planning institutional framework with particular attention to the functions of the individual towns within the region.

2. Transform China’s urban areas into resource-saving cities and towns.

• Saving and recycling of resources should be promoted by establishing a comprehensive pricing system which will lead to major improvements in the efficiency of water and energy use. As a first step, environmentally harmful subsidies should be eliminated. Fuel taxes and water pricing reflecting full cost recovery should be introduced. Water and energy pricing will need to include measures to ensure that poorer and disadvantaged people have adequate access. This system should be incorporated into the 11th Five Year Plan.

• The development and promotion of building standards for saving energy and water should be accelerated. This requires the adoption of mandatory building codes including conserving technologies in building design and construction. Existing buildings should be upgraded, for example through making conservation technologies available to households (low water use toilets and showerheads). Environmentally friendly design and procurement for governmental buildings and infrastructure should be promoted.

• As main drivers for achieving a circular economy pollution should be avoided at source wherever possible, and waste discharges per unit of output reduced. Sustainable consumption and production in cities should be promoted. For this purpose campaigns that advocate a lifestyle consistent with Chinese ideals should be carried out, directed towards improved understanding of ecological footprints and the local environmental carrying capacity.

• Closer cooperation with the business community on clean production should be encouraged and the phase-out of old, polluting technologies accelerated. Small and medium-sized enterprises in highly polluting sectors should be supported in their efforts to implement the circular economy. Strengthening of China’s environmental technology sector should be continued through mechanisms such as urban green procurement funds, on the part of local and national government, and through sustainable development innovation funds for R&D. Greater access to innovative urban pollution prevention and control technology should be sought, through foreign direct investment and partnerships with international business.

• First priority should be granted to the development and implementation of public urban transport systems in order to meet the mobility demands and needs of the majority of the population, to reduce the oil dependence and minimize emissions. Traffic congestion taxes and other traffic management tools should be adopted to control and discourage the utilization of private cars within cities.
3. **Significantly accelerate efforts to control the environmental impacts of cities and towns and continuously improve urban environment.**

- Enforcement of environmental laws and regulations should be stepped up and environmental protection departments strengthened through governmental reform. They should be equipped with integral powers and more effective enforcement instruments for comprehensive environmental management. Administrative and technical capacity of the environmental protection department should be enhanced at all three levels (state, regional and local). More deterrent penalties are needed for serious violators of existing environmental laws and regulations. Reasonable but strictly enforceable environmental control systems for air and water pollution should be set in place.

- Municipal authorities and mayors should be provided with targets and performance indicators as tools to assist with their obligation in regard of sustainable resource use and total emission control. Specific indicators and incentives should be developed to motivate local officials to take proper account of environmental and social performance.

4. **Public information and participation for sustainable urbanization**

- Public participation in policy decision making for urban planning, as well as transportation infrastructures should be promoted.

- The further development of functional local community services should be supported, and access to basic education for all citizens promoted.

- Public consultation, information release and public hearing mechanisms should be established, so that potential social and environmental impacts are discovered and addressed in time. Communication channels on important development strategies should be built.

- Training, education for sustainable development and publicity should be promoted as means to increase general public awareness, understanding and support for the Circular Economy. The valuable roles that non-governmental organizations can play in sustainable urban development should be recognized and enhanced.
Annex

SUMMARY OF INDIVIDUAL TASK FORCE RECOMMENDATIONS

1. Implement a national strategy for sustainable urbanization within China that can properly address key environmental and developmental needs.

The following elements should be part of this strategy:

• Regional planning law for design and regulation of urban expansion that values local environmental and cultural characteristics, addresses the likely impact of settlement and urban consumption patterns on the surrounding regions, minimizes wasteful use of water, energy and materials, and identifies opportunities to strengthen and protect ecological services.
• Specific targets in the range of at least 3 to 4% per year for continuously reducing per capita levels of waste, energy, water and land use within cities and towns, differentiated according to location, size and level of development.
• Improved access of all urban residents and migrants to the essentials for Xiaokang, including health and education, reasonable housing and transportation, green space secure environmental conditions, and economic opportunities.
• A broader range of public-private partnerships (PPP) to implement and maintain urban transportation, environmental infrastructure, water, energy and material efficient buildings.
• Central and local government green procurement policies that support purchase of environmentally sustainable technologies and goods during the coming two decades of intensive urban construction and re-development.
• Support and incentives to urban administrators and managers for capacity building on sustainable development.

2. Develop efficient, convenient, and low cost transport systems based on public transport suitable for all citizens. Make sure that private vehicle owners, cover their full environmental and social external costs. Use economic instruments (increased fuel taxation, city centre congestion fees, highway tolls, higher parking fees) to shift transport modes towards a sustainable way.

• Develop an integrated transport system through a high-level transportation management and coordination organization (e.g. a National Transportation Commission) for the formulation and implementation of unified and coordinated transportation policies for passengers and freight.
• Use economic instruments to promote sustainable transport. Provide tax incentives for efficient vehicles e.g. fuel tax. Establish a ‘National Transport Fund’ to support sustainable transport projects.
and strategies. Establish a value-added land tax system for public transportation investments to support the development of sustainable urban transport. Move towards the full internalization of all transport externalities according to the principle of 'user/polluter pays'.

- Public transport, walking and cycling should guide urban land development (TOD model). Develop transport systems with interoperability between different transport modes. Ensure that transport systems meet the mobility needs of all Chinese citizens, with special attention to the disadvantaged groups, e.g. the old, the young, the poor and the disabled.

- Implement ‘mobility management’ to balance transportation demand and supply, and alleviate urban traffic congestion by changing behavior and reducing car trips. Raise awareness of sustainable transport and safety. Ensure public involvement in decision making. Encourage the use of transportation modes and vehicles that are characterized by low energy consumption, low pollution, and low energy consumption.

- Develop and use advanced transportation technologies (including new vehicle types, new fuels, and intelligent transport management systems). Implement strict environmental assessment and restoration mechanism during the process of transportation infrastructure construction.

- Establish and enforce strict fuel consumption standards for all new motor vehicles by 2008 and enforce the limits of fuel consumption of passenger cars. Reduce fuel consumption per/kilometer by 40-50% by 2015. Establish strict fuel oil quality standards for motor vehicles and hasten the implementation of the new emission standard (GB/EURO 4) for motor vehicles. Promote low sulfur fuels 150ppm in the whole country by 2007, below 50ppm from 2010 and then super-low sulfur fuels (<10ppm).

3. **Set in place essential laws, policies, knowledge and incentives to promote a continuously improving national Circular Economy within China’s cities and towns.**

- Formulate and implement a basic law for the Circular Economy that establishes a resource-saving society, with clearly defined rights, responsibilities and obligations of governments, enterprises and citizens, with an appropriate balance in use of market instruments, regulatory tools, and enforcement mechanisms.

- Update other laws and regulations including the basic Law of Environmental Protection and laws pertaining to waste generation and disposal in order to address the new topics associated with the Circular Economy such as waste avoidance at the source and industrial ecology.

- Set specific targets during the 11th Five Year Plan period including: 3 to 4% annual reduction in energy and resource consumption per unit output, reuse of metal resources and 65% of industrial solid waste; closed loop use of water in 90% of industrial uses, sulphur dioxide emission reduced by 55%; urban household waste treatment increased to 70% and household wastewater treatment increased to 47%.

- Formulate policies concerning manufacturer responsibility for reuse and disposal. Consumer fees should be collected and placed in a National Circular Economy Fund.
• Develop a labeling program for Circular Economy products and promote such products via national and local government green procurement.
• Create more ecological industrial parks and clusters, where reuse and recycling can be enhanced and where new environmental technologies can be introduced.
• Accelerate the phase-out of outdated industrial technology.
• Encourage national and regional technology innovation funding financed through the proposed National Circular Economy Fund, to support new environment and sustainable development technology development and commercialization.

4. **Mainstream the use of Environmental Fiscal Instruments (EFIs) in public finance to heighten efficiency of natural resource and energy use, and for improved, cost-effective environmental protection and pollution control in both cities and rural areas.**

The EFIs include a mix of various components: revenue instruments such as taxes and charges; public expenditure policies including fiscal transfer; resource and environmental pricing policies. The following steps should be taken for a systemic and consistent approach to environmental pricing and tax reform:

• Clearly define Central Government power and authority over environmental affairs and match government environmental expenditure, taxation and pricing to this power. A properly functioning Environmental Fiscal Expenditure Account (EFEA) and a Lead Group on EFIs should be established to guide this process.
• Define high priority areas for intervention and areas where action would be premature. Priority areas for immediate action may include fuel tax reform (e.g. to promote desulphurization), urban wastewater management, water pricing, and subsidies, where market forces work against innovation such as Circular Economy technologies.
• Accelerate fiscal transfer payments to support investments in sewage treatment in upper and middle reaches of river basins rather than concentrating mainly on richer downstream cities; the result would be enhanced benefits both to the upstream settlements and to the coastal cities.
• Urban water supplies should gradually be priced upwards in line with the long run marginal costs of supply. This approach will generate revenues in excess of financial cost that can be invested into guaranteeing long-term supply of water, or subsidies for supply of water to poorer people and communities.
• Develop an EFI package for reducing sulphur emissions, especially in cities. The immediate need is to increase the rate of desulphurization and to ensure that the costs of doing so are eventually passed on through the end price charged to electricity consumers. Tax relief to users of desulphurization byproducts will stimulate their use (e.g. gypsum) and help to achieve the Circular Economy. In the more distant future, damage-based product taxes could be introduced in order to address air pollution externalities and thus reduce health costs.
• Carry out EFI introductions gradually in concert with reduction or removal of other measures, especially changes in command and control regulation or when existing taxes and charges are reformed and when environmentally harmful subsidies are phased out.

• Reform fiscal transfer payments to link them more directly to the solution of environment and poverty problems. Support may be needed for those areas and groups too poor to invest in effective pollution treatment and control.

• Establish the scientific basis of monitoring and verification required to make systems involving economic and fiscal instruments work well.

5. **Create a sustainable development measurement system that can be applied to assess performance of officials at the level of cities and provinces.** Such measures should be operational at both national and lower administrative systems and eventually be linked to the National System of Accounts.

• On the short term it is not feasible to quickly implement a Green GDP measure that would accurately and fairly gauge adjustment of GDP for environmental degradation and to use this information to routinely assess performance of local officials.

• A feasible approach is to develop a basket of indicators reflecting economic, social and environmental factors of sustainable development, appropriately weighted for various local conditions. This approach was tested in five cities and appears to have promise for use in assessing performance in a more integrated fashion.

• A materials flow satellite accounting system to the National System of Accounts is needed to measure the result of resource efficiency and environmental protection efforts, including performance of EFI and of Circular Economy initiatives. Environmental data suitable for measures at the level of cities and counties are still very imperfect and not yet suitable for making government performance evaluation scientifically reliable. Therefore improved information systems of environmental data and on resource consumption and management of the Circular Economy are needed.