

**THE CHINA COUNCIL
FOR INTERNATIONAL COOPERATION
ON ENVIRONMENT AND DEVELOPMENT**

THE FIFTH MEETING OF THE FIFTH PHASE

Shangri-La Hotel, Beijing

December 7 – 9, 2016

Summary Record

March 2017

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ABBREVIATIONS

ADB	Asian Development Bank
AGM	Annual general meeting
AIIB	Asian Infrastructure Investment Bank
APEC	Asia-Pacific Economic Cooperation forum
ASEAN	Association of Southeast Asian Nations
CCICED	China Council for International Cooperation on Environment and Development
CFDA	China Food and Drug Administration
CO ₂	Carbon dioxide
EPA	Environment Protection Agency
ETS	Emissions Trading System
EU	European Union
FYP	Five-Year Plan
GDP	Gross domestic product
GGGI	Global Green Growth Institute
GHG	Greenhouse gas
HFC	Hydrofluorocarbons
ICAO	International Civil Aviation Organization
IEA	International Energy Agency
INDCs	Intended Nationally Determined Contributions
MDG	Millennium Development Goal
MEP	Ministry of Environmental Protection
MRV	Measurement, Reporting and Verification
NDRC	National Development and Reform Commission
NGO	Non-governmental organization
OBOR	One Belt, One Road; also known as Belt and Road Initiative
OECD	Organisation for Economic Co-operation and Development
PM	Particulate matter
PPP	Public-private partnership
RMB	Renminbi, China's currency
SDG	Sustainable Development Goal
SERI	CCICED Secretariat
SISO	CCICED Secretariat International Support Office
SLCP	Short-lived climate pollutant
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
WEF	World Economic Forum

WRI
WWF

World Resources Institute
World Wide Fund for Nature

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I. Introduction

The China Council for International Cooperation on Environment and Development ("the Council" or CCICED) was established in 1992 by China's State Council in order to foster cooperation in the areas of environment and development between China and the international community.

The Council is a high-level advisory body that puts forth recommendations on environment and sustainable development for the Chinese government's consideration. It has so far convened 25 annual meetings organized in five-year phases.

The Council supports the development of a comprehensive approach to sustainable development and environment through close cooperation between China and other countries. At present the Council is composed of 33 Chinese members and 33 international members who were chosen for their experience, expertise, and influence.

The Council is chaired by Mr. Zhang Gaoli, Vice Premier of China's State Council and member of the Political Bureau Standing Committee. It was at his invitation that the members of the Council attended the fifth meeting of Phase V.

The CCICED Bureau serves as the executive body of the Council.

The Council's host institution is the Ministry of Environmental Protection (MEP). Previously known as the State Environmental Protection Administration, MEP is

responsible for the Council and for ensuring inter-ministerial coordination. It has established the CCICED Secretariat (SERI) to support international and domestic contacts. The Secretariat supports follow-up in China to CCICED recommendations, and deals with routine matters when the Council is not in session.

The Secretariat is assisted by the Secretariat International Support Office (SISO), directed by Ms. Lucie McNeill and located at Simon Fraser University in Burnaby, Canada. Until April 2013, SISO was funded by the Canadian International Development Agency, afterwards by Environment and Climate Change Canada.

This Summary Record of the CCICED's fifth meeting of Phase V was prepared by Ms. Simina Mistreanu for SISO, based on detailed notes recorded during the annual general meeting (AGM). Representing SISO's interpretation of the general debate and discussions, the Summary Record does not necessarily reflect the views of all participants. To encourage frank and direct dialogue, the Summary Record presents an overview of the points made during the discussion, without attribution to individual speakers.

II. Annual General Meeting

1. Open Parallel Forums

a. Open Forum 1: New Growth Impetus for Green Transformation and Prospects for Sustainable Development

The forum was co-chaired by **Liu Shijin**, deputy director of the China Development Research Foundation and former vice-president of the State Council's Development Research Center, and **Barbara Hendricks**, CCICED vice chairperson and Germany's Federal Minister for the Environment, Nature Conservation, Building and Nuclear Safety. **Liu Shijin** introduced the forum topic and made the following remarks:

It's important for China to update both its supply and demand structures to reflect green consumption. More people today want fresh air, healthy food and green transportation, and they are increasingly willing to pay for it, so the greening of consumption is the strongest new growth impetus.

The supply side is struggling to catch up with demand and needs incentives to go green. The impact of green products must also be better quantified through research. There need to be changes in taxation, pricing and financing to support the development of green products and green public goods.

Barbara Hendricks offered the following remarks:

Achieving the 2030 Sustainable Development Goals (SDGs) requires a paradigm shift in economic and social development. The production system needs to be more environmentally friendly, and the planet must become welcoming for everyone. But we are far from these objectives, and that was reflected in the many world conflicts and crises from the past year.

Germany is leading the way and aims to have 14 percent of the global green products market. PricewaterhouseCoopers estimates that by 2020, the environmental protection sector will employ 430,000 people. The German government plans to overhaul incentives to help businesses cut pollution. German and other foreign businesses can help the Chinese economy on its path to environmental protection, and they should be encouraged.

Germany's federal government is formulating specific measures to support the 17 SDGs, and its 16 federal states have developed their own sustainable development plans. Germany will also pay attention to how other countries are implementing the SDGs. Realizing the 2030 Agenda for Sustainable Development requires a change in lifestyles. The German federal government is working to shift its energy mix from fossil fuels to renewable energy and cut the absolute consumption of energy resources.

Germany is also working with multinational agencies, advocacy groups and organizations to fight global poverty and hunger, illegal flows of capital and money laundering. In 2017, Germany will host the G20 summit and will adopt many of the priorities of the 2030 Agenda. Also in 2017, Germany will hold an online conference with all the environmental ministers in the world and hopes China will play an active role. Germany is looking forward to working with other countries to promote green finance, investment, infrastructure and sustainable development.

Barbara Hendricks introduced forum speakers: **Li Xiaoxi**, CCICED member and deputy director of the academic board and professor at Beijing Normal University; and **Yang Li** of Sciences Po (Paris Institute of Political Sciences).

Li Xiaoxi made the following points:

Pollution and overuse of resources are serious challenges for everyone. The upside is that the 2030 Agenda for Sustainable Development offers hope to everyone. China has already started a detailed plan for the 2030 Agenda with goals, tactics, measures, procedures and principles, down to the implementation at the provincial level. This will be published soon by a German publisher.

In order to achieve the SDGs, China needs to develop green finance, including specialized banks that offer green loans. Market forces are important but the public also needs to become involved.

China needs to step up international cooperation and implementation of its sustainable policies. The G20 summit in Hangzhou offered an occasion to evaluate the 2030 SDGs. Other countries, including Russia, are linking their sustainable development plans to the One Belt One Road (OBOR) initiative proposed by China. OBOR will have an important element of environmental cooperation. China can't just export its polluting industries abroad. The government is encouraging businesses that go abroad to follow green principles, but it needs to establish more rules and regulations.

Chinese businesses operating abroad also need to respect the rules and laws of the host countries. Some of the countries along the OBOR route have a good environment but smaller economies. So Chinese businesspeople and company leaders need to be trained to follow green principles.

Developed and developing countries should face the same criteria for evaluating environmental protection. Experts and academics should push for all countries to release their plans for achieving the SDGs because everyone needs to work together toward this common goal.

Yang Li, a postdoctoral student of green growth at the Paris Institute of Political Science, offered views on the environmental impact of takeout food:

Every day in China more than 8 million takeaway meals are sold through three major online platforms. The resulting plastic waste could cover 59 football fields, and the wasted food amounts to 350 tons — basically a large waste disposal landfill every day.

The trend of takeaway food will grow with China's urbanization, but it takes a toll on the environment.

As part of a summer school sponsored by China's Ministry of Environmental Protection, Tsinghua University and Apple, Yang Li visited organizations across China. She learned that more than 2 million takeaway meals are ordered to Beijing's office areas every day. In Chongqing, where snacks are very popular, there is a lot of wasted packaging. There are pilot projects in Beijing dealing with kitchen waste, but nothing on a large scale. Companies don't want to deal with the cost of separating food scraps from the packaging.

China burns about 30 percent of its waste, and that will increase to 50 percent by 2020, burdening municipalities and adding to environmental pollution.

The summer school students developed a machine for office buildings that can collect and separate takeaway food waste. They hope their solution will help address challenges and increase green consumption.

General debate and comments

China adopted the concept of sustainable development in the 1980s. But the country suffers from severe pollution because it still pollutes first and tries to clean up later. China's pollution problem is comprehensive and involves public awareness, objectives, policies and technology. Technology alone will not fix this problem.

The SDGs are interconnected and should be interpreted based on a country's stage of development. The government is now proposing environmental protection first and development later; but it's running against a history of 30 years of intensive development. The resulting problems cannot be solved in one day. Transitional processes are needed because otherwise the new policies could cripple companies in polluting industries.

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China contributed to the global achievement of the Millennium Development Goals (MDGs) unintentionally because it developed its economy, put in health care and social protection systems and improved education. Similarly, the Belt and Road Initiative could support the achievement of the SDGs.

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There's a paradox between pursuing sustainable development, which may not be very profitable, and the businesses' and financial institutions' desire to accumulate profits. The government must provide support not by giving loans but by offering subsidies and tax breaks. The German government is offering subsidies for green initiatives, and it seems to be working.

Several major banks in China are looking into green finance. But the government, businesses, financial institutions and society must consider the conflict between profits and the public good. Companies might decide a green transformation offers them smaller profits but a good public image.

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In most Southern countries there are really two "countries": one for people who live comfortably and another for the poor. The term "growth impetus" only concerns people who under-consume. Growth is needed for the segment left behind; the other sector needs efficiency. The planet's sustainable development is impossible if we pursue growth for everybody.

We need a totally different model, which will allow for more decentralized, fulfilling and human-scaled communities. A green transformation must also be an inclusive transformation, and it must not only be an environmental issue but also a social and political issue.

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At the United Nations Development Programme (UNDP) we used to argue that the transformation to the green economy could be done in such a way that poverty is resolved. It's a question of making the right choices in the transition to a new economic model.

We need to transition to the circular economy, and we need new technologies because the ones we have are not enough to help us stay below 2 degrees Celsius. We should look to not only capture and store carbon but also use it as a resource, as a building block for the new economy. If we go step by step, we won't make it soon enough. We have to include the bottom half of the society because if we don't, political changes like the ones we're seeing now will prevent the transformation to a new society.

We need not only specialized banks but also new metrics and a new way to calculate the return on investment (ROI), which should describe not only financial returns but also include a sustainability dividend.

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Liu Shijin called the meeting back to order and introduced the next speaker, **Stephen Groff**, Council member and vice president of the Asian Development Bank (ADB). He made the following remarks:

CCICED's interim report for China's Green Transformation Outlook for 2020-2050 shows that China's transition from an economic growth model based on capital investment, industrialization and exports to a more balanced, sustainable one does not need to be costly or disruptive. It's possible to reduce pollution and gain in productivity through transforming the economy, while generating employment. There are three important factors that will contribute to China's green transformation:

First, China needs to commit to policy reform. A major challenge is that environmental and ecological services are usually outside the calculations of costs and benefits. If pollution continues to be a hidden cost of investment, then it will continue to be ignored. In order to shift to a new paradigm of sustainable development, it's important to reform incentives.

ADB commends China's recent publication of the draft law on environmental taxes to reduce pollution. It's important to ensure that pollution taxes are set at levels that will

provide incentives to industries that invest in pollution control. Other possible complementary measures include a carbon tax, a natural resource tax and tax deductions to offset investments in pollution control equipment. The new revenue from these taxes could be used by local governments to encourage public investment in environmental protection and resource conservation.

Secondly, China needs to make available financing facilities to help industries comply with the new regulations. There's much interest for green financing in the private sector. China's new guidelines for establishing the green financial system will provide a roadmap for green lending, green bond market development, green insurance, green development funds and carbon finance.

Thirdly, technological breakthroughs and innovation will drive China's green transformation. China needs to decarbonize its energy sector, and it can do so by reducing its reliance on coal, promoting clean coal technologies and carbon capture and storage, increasing the contribution of renewable energy and promoting energy efficiency and conservation. The public supports these changes, so the timing is right. Clean technologies can become a new driver for China's economic growth, as well as boost employment. In 2016, China employed 3.5 million people in its renewable energy sector, more than 40 percent of the total employment in this sector worldwide.

ADB's annual climate-related financing will double from \$3 billion to \$6 billion by 2020. ADB collaborates in this area with the Asian Infrastructure Investment Bank (AIIB) and the private sector. ADB's China programming strategy for 2016-2020 is aligned with the 13th Five-Year Plan (FYP), with an emphasis on environmental protection and climate change.

Hu Angang, Council member, director of the Center for China Studies at Tsinghua University and professor at the School of Public Policy and Management at Tsinghua University, spoke next. Here are the main points he made:

The first year of the 13th FYP has been better than expected from the perspective of environmental protection and resources conservation. In the first three quarters of 2016, China's energy intensity decreased by 5.2 percent, and carbon dioxide (CO₂) emissions dropped by 6 percent, exceeding the initial target of 3.9 percent.

Compared to the 38 years since China's opening up, the past four years have had slow economic growth. In 2016, China's consumption of energy and resources was one of the lowest. This is in line with the 13th FYP, which emphasizes the quality of the economic growth and ecological benefits. For example, China's coal consumption peaked in 2013. In 2015, it decreased by about 2 percent, and in 2016 it's expected to drop again by about 2.7 percent compared to 2013 or 2012. The percentage of coal in the total energy mix will be 62 percent, and the government's objective is to bring it down to 60 percent.

Renewable energy sources make up 34.3 percent of China's energy power generation, and that will reach 40 percent in a few years.

As China's economic growth slowed down to about 6.7 percent in 2016, compared to 10 percent a few years ago, this creates favourable conditions for improving the economic structure and reforming industries. In one of the years with economic growth in the double digits, power consumption increased by 7.3 percent. But this year, growth was almost flat.

From 1959 until 2006, industry contributed about 40 percent to China's overall GDP. This year, the service sector will account for about 53 percent of the Chinese economy. In the first three quarters of the year, the service sector contributed more than 58 percent to the GDP. An economy based on services will have less impact on the environment.

As the Chinese economy shifts from middle to middle-to-high-income, the public demands better environmental quality. To realize the 2030 Agenda, China needs to first cut poverty, second, declare war on pollution, and third, foster innovation.

The patents, trademarks and copyrights registered by China in 2015 accounted for 40 percent of the world total, surpassing those of the U.S. The government encourages Chinese companies and research institutes to explore the green sector.

China is a global leader on climate change, as shown by the Paris Agreement. China employs 40 percent of workers in the global renewable energy sector. The government recently issued a new set of guidelines for environmental protection with 12 compulsory requirements, demonstrating it wants to change China from a "black hat" (a polluter) to a "green hat."

Xu Shanda, former deputy commissioner for the State Administration of Taxation, made the following remarks:

During China's period of rapid growth, the country struggled to balance GDP growth with environmental protection, with benefits from economic growth much greater than the environmental costs. This has changed.

Since the 18th Party Congress, China has adopted a new strategy. GDP is no longer the only criterion for assessing an officials' performance. This has started to produce changes in policy and decision-making. The Beijing-Tianjin-Hebei area now has coordinated planning, including for environmental protection.

But better reforms are needed, for instance in the legal system. Authorities must consider whether they can set limits for emissions resulting from production and to

establish a solid penalty system. Also, the government needs to explore solutions for dealing with cross-boundary pollution.

Environmental organizations need more support to do their job, and environmental institutions have to become more powerful.

From a judicial perspective, China cannot continue to rely on administrative measures to protect the environment. It needs actual laws. Polluting should be included in the criminal law. Deliberate pollution is widespread, and its effects are borne by the whole society. Pollution should be judged by how it affects the public good. The police and the courts need to be integrated. The whole legal system should become part of the green transformation.

Andrew Steer, CCICED member and president and CEO of the World Resources Institute (WRI), made the following remarks:

The old perception is that protecting the environment will cost in terms of economic growth. But that's not necessarily the case. Working with the Global Commission on the Economy and Climate, WRI specialists gathered some of the world's best economists and asked them two questions: Will it cost more to do it in a green way? And what will that do to economic growth?

All of the world's investment in the next 15 years is estimated at \$90 trillion. It would indeed cost a bit more to have the investment be green. For example, investing in energy efficiency would cost another \$7 trillion. But that would also lead to savings because fewer power plants would be needed.

A truly green investment strategy would cost \$93 trillion, compared to the initial \$90 trillion. But if you then subtract the cost of resources saved, you'll have a final amount of \$88 trillion. It is cheaper to do it green.

As for the impact of green investment on economic growth, the result is mixed but overwhelmingly positive for four reasons: First, reducing pollution leads to improved efficiency. Second, it also leads to developing technologies quicker. Third, consistent policies will convince businesses to invest more. And fourth, less pollution leads to saving health care costs.

Green investment will lead not only to healthier growth, but also to better growth. Solving individual problems in a green way is going to be more expensive and will lead to unemployment. Only when taken as a package can you unambiguously show how green approaches can make a huge difference.

China's five-year planning process is a great advantage because it allows the country to think in terms of economic shifts.

We used to think the financial sector was neutral. But now we know it is actually biased toward polluting things because on one hand, it doesn't understand the environment, and on the other hand, it's conservative and prefers to lend to the types of businesses it had lent to before. That's why China's leadership on green finance in the G20 is extremely important.

The public needs to understand we're moving toward a new paradigm of development which take the form of five revolutions: urban planning; food and agriculture; energy; moving from a linear to a circular economy; and consumption.

General debate and comments

There's universal admiration for China's setting up of pilot carbon trading markets and trying to establish green finance.

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On the question of incentives and penalties, China in its 11th FYP started introducing binding, compulsory targets. They now include soil, water and air pollution. But the central government relies on local governments to report the progress on these targets, so there needs to be more government capacity. Carrots and sticks are not in conflict with each other. For example, the Shandong provincial government offers cities rewards if they fulfill their targets. Local officials' perception has started to change now that President Xi Jinping has emphasized environmental protection.

b. Open Forum 2: Global Governance on Environment and Climate Change

Xie Zhenhua, CCICED vice chairperson, China's special envoy on climate change, and deputy director of the CPPCC Committee on Population, Resources and Environment,, and **Catherine McKenna**, CCICED international executive vice chairperson, and Minister of Environment and Climate Change, Canada, co-chaired this open forum.

Xie Zhenhua welcomed the participants, opened the forum session and made the following remarks:

At a recent meeting held by China, Japan and South Korea, government officials discussed the uncertainty brought by the U.S. presidential election, especially around climate change. Another worrying trend is anti-globalization.

At the Marrakech Climate Change Conference in November, participating countries adopted a declaration stating the need to achieve low-carbon development to conform to the Paris Agreement, and the willingness to implement the Intended Nationally Determined Contributions (INDCs) and combat climate change.

The declaration shows that multilateral agreements will continue to play a role in the future. Green growth and the fight against climate change are irreversible trends, but there are still problems.

Catherine McKenna emphasized the following points:

It's important to show leadership on climate change; indeed, the idea of anti-globalization and turning inward is negative.

Planetary boundaries are the thresholds of human activity on the environment. When they are crossed, there's a risk of irreversible and abrupt environmental change, which could make the earth less habitable.

China's leadership on climate change mitigation is critical for China and the world. The issue isn't the size of the challenge, but the priority that China and the world continue to place on tackling this challenge. The international community is more engaged than ever. That's been shown through the Paris Agreement, the International Civil Aviation Organization (ICAO) agreement to take action on emissions from trans-boundary civil aviation, and the Kigali amendment to the Montreal protocol to phase down hydro-fluorocarbons (HFCs). China's leadership was key in these multilateral agreements.

But these actions will not suffice. We also need to take action on short-lived climate pollutants (SLCPs) other than HFCs, such as methane, black carbon and ground-level ozone. If China joined the Climate and Clear Air Coalition, it would send an important signal to the world.

Transparency is also essential in the countries' reporting of their climate mitigation actions. At Marrakech, the Global Environment Facility committed \$50 million toward the issue of transparency. This initiative will help developing countries improve transparency, monitoring and evaluation as they scale up their efforts to deliver on their INDCs. China facilitated the negotiations on the enhanced transparency framework.

China's decision to launch a national carbon trading market is also commendable. Putting a price on carbon is the most efficient way to reduce emissions and stimulate investments in green infrastructure and low-carbon innovation. Canada is also putting a price on carbon pollution.

The issue of gender needs to be systematically integrated into climate adaptation and mitigation plans. This means engaging local women, women's organizations and civil society organizations in the planning and implementation of climate change initiatives. It means ensuring that the knowledge and expertise of women inform policymaking at all levels. We need to look at how they support women and how they support women's rights.

International cooperation is essential for the sustainable use of the oceans and conserving and protecting Polar regions. The Arctic is literally melting, and in Canada, it's devastating the Inuit people's way of life.

Our survival depends on the health of the oceans, which capture more than a quarter of all human-generated CO₂ emissions. The negative environmental impact on the oceans affects the lives of 800 million people who depend on fisheries and aquaculture for their livelihood and of 4 billion people who take their protein from fish.

The world is stepping up to protect northern and Polar regions. This summer, the eight arctic nations signed an agreement on enhancing scientific cooperation among circumpolar nations and others countries interested in polar research. China can play a more important role in protecting the oceans and Polar regions.

Jos Delbeke, director-general of the European Commission's Directorate-General for Climate Action, made the following remarks:

In Marrakech we saw we have no time to lose. 2016 was the hottest on record, and we've already used up 1.2 degrees Celsius of the 2 degrees we signed up to in Paris. The time has come for implementing the Paris Agreement. Some countries are doing that, but others aren't. The EU is determined to continue to implement the Paris Agreement. Two weeks ago the EU passed a major legislation concerning renewable energy and energy efficiency governance. Almost 90 percent of the legislation required to implement the EU's INDC is now on the table, with the rest to follow next year.

The EU congratulates China on work proposed in the past FYPs and the rollout of the pilot emissions trading systems (ETS) into a national carbon trading market. The countries and regions that have carbon markets, including the EU, China, Canada, New Zealand and others should exchange best practices outside of the context of the UN.

In 2018 countries might have to check in with one another to see how far they've come in implementing their INDCs into policies and measures. It's time to move to the early ratification and implementation of the Kigali Amendment of the Montreal Protocol. Businesses should be encouraged to bring climate-friendly technologies to the market. Carbon markets need Measurement, Reporting and Verification (MRV) systems, registries and a heavily involved business sector in order to make this instrument work.

He Jiankun, Council member, deputy director of the National Panel on Climate Change of China, and former executive deputy president of Tsinghua University made the following statements:

The countries' INDC targets are insufficient to achieve a global warming of maximum 2 degrees Celsius, as per the Paris Agreement. According to international organizations'

statistics, between 2015 and 2030 global GDP growth will be the same as between 2000 and 2015. But in the next 15 years, consumption growth will decrease to 1 percent annually from the 2 percent annually we saw between 2000 and 2015. And CO₂ emission intensity will increase from 1 percent annually in the past 15 years to 2 percent annually in the next 15 years. So in the next 15 years, emissions reduction efforts would need to increase threefold compared to the past 15 years, meaning carbon emissions should be reduced by 4 percent every year, in order to achieve the target of 2 degrees Celsius.

No matter what measures the Trump administration takes, other countries will stick to the Paris Agreement. China aims to reduce its CO₂ emissions per unit of GDP by 60 to 65 percent from the 2005 level by 2030. This means the annual CO₂ emission reduction would be 4 percent, which is also the global target if we are going to stay below the 2 degree Celsius limit.

The 2030 CO₂ emissions reduction target will be supported by measures included in the 13th, 14th and 15th FYPs. In addition, China also set a target to reduce energy consumption to 5 billion tons of standard coal equivalent by 2020. And by 2030 renewable energy sources should account for 20 percent of primary energy consumption.

China's coal consumption decreased this year compared to 2015 and 2014, and it will not likely increase again, showing signs that China might develop in a more sustainable way. During the 11th FYP carbon emissions increased by 16 percent, but they decreased continuously during the last two FYPs.

China needs to peak carbon emissions by 2020. Some coastal areas already have specific targets. The GDP in some of these areas will continue to grow at about 6 percent per year, and carbon emissions will decrease at the same time by 6 percent annually. This is unprecedented for China or other countries.

In order to achieve its goals for sustainable development, China has taken measures including supporting green finance, investing in low-carbon technologies and offering preferential tariffs for energy generated by renewables. By 2020 wind and solar power should be more competitive with power generated by fossil fuels in terms of prices. And by 2020 the installation capacity for renewable energy will amount to 10 billion kWh. China is preparing the launch of a national carbon market, which should encourage companies to invest in the green sectors.

China has entered a new stage, with a "new normal." The Chinese government requires companies to focus more on the quality of development. Energy-intensive industries such as steel and cement have reached their peak and are being replaced by high tech industries. This will help China achieve its INDC targets and reduce carbon intensity.

China will shoulder its environmental responsibilities and will continue to cooperate with other countries. The OBOR initiative and South-South Cooperation framework will be two elements of this new direction.

Scott Vaughan, president and CEO of the International Institute for Sustainable Development, emphasized these issues:

The international community has seen a remarkable momentum on climate change since the Paris conference. In Marrakech, that momentum was not dented by the outcome of the U.S. presidential election or by Brexit. Canada and China are world leaders on climate change. It's important that the rules don't get too far behind policy innovation, particularly when it comes to developing countries' MRV systems.

Secondly, infrastructure stands to gain from public-private partnerships (PPPs). Earlier this week four automakers committed \$1 billion to building charging stations for electric cars across Europe. Governments should tap into the private sector's creativity to address the infrastructure deficit.

Thirdly, there's a real risk of de-globalization, of a retreat from free trade, and of an increase in protectionism, particularly from the U.S. So countries should consider a 21st century trade agreement with climate as one of its central focal points. This agreement should put jobs at the center of a climate-trade agenda to address some of the employment and earnings insecurities existing in Western democracies.

Diane Regas, the executive director of the Environmental Defense Fund, underlined the following points:

In Marrakesh we saw that countries increasingly regard addressing climate change as central to their economic growth and prosperity. The change in the U.S. administration will not derail that, but it will have implications for multilateral negotiations.

President-elect Donald Trump has indicated he wants to roll back environmental protection regulations in the U.S. and withdraw the U.S. from the Paris Agreement, though he later said he has an open mind on that topic. Some of the early appointments into the administration look concerning from the climate standpoint.

But there is good news: First, the President of the U.S. doesn't have the power to, with a stroke of the pen, withdraw regulations like the Clean Power Plan. Much implementation has already happened. The U.S. economy will continue its progress on climate change. Republican Congress last year renewed the tax incentives for solar and wind technologies, and this is expected to continue.

U.S. climate regulations don't rest upon one person, President Obama, and one city, Washington, D.C. There's momentum around the country. The state of California just put in place a legally enforceable target of a 40 percent reduction in greenhouse gas emissions (GHG). Texas already has 12.5 percent of its electricity coming from wind power. And Illinois last week adopted a series of incentives that should drive down emissions from the state's electricity system by 56 percent by 2030.

Business leadership is also critical. Walmart, the biggest private employer in the world, has committed to reducing its emissions by 1 gigaton. That's more than all of Germany's emissions in a year. Smithfield Farms, the largest pork producer in the world, last week announced a commitment to reduce emissions by 25 percent through their supply chain in the next few years. Google announced it will have 100 percent of its energy needs supplied by clean energy by next year. Microsoft, Amazon and other American companies are making commitments, which will drive through the supply chains and drive down the country's overall emissions.

But three issues are worth mentioning:

First, in the context of anti-globalization pressure, it's important to make sure the benefits of addressing climate change are felt by all.

Second, addressing SLCPs such as methane, black carbon and ground-level ozone is key to decelerating climate change.

Third, China's leadership on climate change is paramount. China deserves tremendous credit for its international leadership on climate, and people in other countries should know more about it. China rolling out its national carbon trading market will send a signal around the world. Putting a price on carbon should be reflected in international policies, as well.

Marco Lambertini, Council member and director general of World Wide Fund for Nature (WWF) International, made the following remarks:

Xie Zhenhua's leadership in Paris and Marrakech was key. Global climate leadership in the future needs to be more distributed and to involve everyone. But some countries will have to play a stronger role, and China is among those countries.

China has walked the talk on climate leadership. It is the biggest investor in renewable energy and the biggest employer in the renewable energy sector. It has been able to crush the price of renewable energy and make it competitive with fossil fuels.

In a "post-truth" world, we need leadership that stays true to science. We also need a leader who is able to keep not only the Paris commitment but also the Paris coalition

moving forward. We need to grow the ambition and grow the emphasis on the urgency of climate actions.

We need leadership that will bring together governments, businesses and civil society. We also need to integrate the two sides of the coin of the ecological crisis: climate change and the conservation of the natural systems that are helping us mitigate climate change.

Xie Zhenhua noted that the problems have been identified, and now it's important to enact solutions. When the public sees the results of the implementation of various agreements, it will become more involved in the environmental protection movement.

Catherine McKenna opened the second half of the forum session, which focused on the sustainable use of oceans and Polar regions. She introduced **Su Jilan**, Council member, professor and senior advisor, honorary president of the Second Institute of Oceanography, State Oceanic Administration. These were his remarks:

The Arctic ice sheet is shrinking with global warming, and the world is considering using the Arctic Ocean for shipping lanes. How shipping and harvesting will affect the polar ecosystem is a fundamental concern. China has launched scientific studies in polar seas and the Antarctic Ocean.

China's economic achievement over the past 30 years has come with an enormous price. Over the past 20 years, the Bohai Sea has suffered from increasing hypoxia and is on the verge of entering the so-called "dead zone." Hypoxia is accompanied by ocean acidification. To the benthic community, hypoxia is as harmful as smog is to people.

The terrestrial input into the ocean, such as fertilizers, contributes to hypoxia and destroys natural habitats. Intense mariculture and overfishing are also damaging.

These issues boil down to the sustainable use of the coastal areas and oceans, as well as an integrated approach to dealing with environmental issues on land and water. The international sustainable approach is called ecosystem-based marine special planning, and China is trying to move in that direction. Some countries are already doing solid marine special planning. It would be good if CCICED could help share that knowledge among the countries involved in the OBOR initiative.

Erik Solheim, the executive director of the United Nations Environment Programme (UNEP) made the following points:

At the Bali Climate Change Conference in 2007, which is where Mr. Solheim first met Xie Zhenhua, people still thought it would be possible to make big international agreements on climate change without involving China. Today, countries are looking at China to lead them out of the morass.

Oceans are coming to the forefront because they are suffering some of the most severe climate effects, such as warming and acidification. In the South China Sea, there has been a huge destruction of coral reefs. For the first time in history, people can affect the deep seas. The oceans' increasing importance is reflected in the UN system: The most important UN conference of the year dealt with ocean issues. Time has come for China to provide global leadership on this.

There are three main challenges:

The first is the enormous increase in plastics. If we don't do anything, by 2050 the combined weight of plastics will be the same as the weight of fish. Microplastics from cosmetics affect sea birds and fish. Almost all plastics come from land, not from the shipping or fishing industries. East Asia is the main source of plastics in the oceans. This needs to be curbed.

The second issue is coral reefs. They are the cradle of fish populations and key to tourism in many parts of the world. Their protection needs global solutions.

The third issue is illegal fishing. When Mr. Solheim visited President Ellen Johnson Sirleaf of Liberia, he asked her how he could help. She said she needed a coast guard. Liberia's coast was lined with illegal fishing vessels from Europe and Asia that were plundering the poor country's resources. The international community must find ways to check and track these ships, hold people accountable and stop illicit fishing.

Jan-Gunnar Winther, Council member and director of the Norwegian Polar Institute made the following remarks:

This is a summary of a working paper on the oceans that was developed following the encouraging feedback received to a presentation made at last year's AGM. The world needs to strike a balance between using and preserving the oceans. We need the oceans to have a blue economy and growth, but we need to do it in a green way.

Our society's development rests upon the quality of the oceans. They hold most of our planet's water, produce more than half of the oxygen in the atmosphere and absorb most of its carbon. They provide ample economic opportunities. But issues impacting the health of the oceans including pollution and plastics, biodiversity loss, climate change and unsustainable exploitation of resources affect our ability to fully realize the oceans' economic opportunities.

Oceans know no border and need joint international action. They are the marine counterparts of the atmospheric issue. There are many regional and global initiatives for oceans, from international bodies such as UNEP, E.U., the Organization for Economic Co-operation and Development (OECD), and the World Economic Forum (WEF).

CCICED should consider how China could contribute to this global movement. China highlighted the concept of a blue economy in the 12th and the 13th FYPs. It has taken part in international maritime and ocean discussions, cooperation and exchanges. China views itself as near-arctic state and is engaging in the regional cooperation framework of the Arctic Council.

Ocean issues should be an area of focus throughout CCICED Phase VI. One initial step could be to establish a Task Force or a Special Policy Study tasked with undertaking a scoping and outlook study in 2017. It would be a comprehensive diagnostic of the oceans, mapping national and international ocean processes and initiatives. This study could also encompass Polar Regions.

This process could be aligned with China's national plan for implementing the SDGs. An ocean initiative could strengthen China's position in the international community and contribute to the concept of ecological civilization within the framework of the OBOR initiative.

General debate and comments

It is dangerous to look at the oceans as a new frontier for development. An examination into the current unsustainable use of the oceans and the development of measures to restore their full potential is required. WWF produced a report calculating the Gross Marine Product, which is equivalent to a country's GDP. It would make the world's oceans the seventh largest economy in the world and place it among the G8 countries. The oceans could contribute to the economy much more than today, and that's the real potential of the blue-green economy.

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It's very likely that Donald Trump will try to thwart environmental protection efforts. So it will be critical to work directly with U.S. private sector companies and banks.

Specialists from the task force on South-South cooperation conducted hundreds of interviews with representatives of governments, corporations and civil society in Latin America, Southeast Asia and Africa. People in these regions don't know much about China's environmental leadership. They are eager to receive Chinese investment and aid, but China needs to do a better job of communicating its efforts in global environmental governance.

The oceans agenda is attractive for many governments and NGOs. It would be good if CCICED made a thorough assessment of the current situation and of the players involved. It should also make use of the new digital technologies such as drones or tools for monitoring or fisheries control.

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The world has moved through two phases of global governance on environment and climate change and is now stepping into the third.

The first stage led to the Copenhagen Climate Change Conference in 2009. The discourse at the time revolved around environmental governance, emissions reduction and shared responsibilities. It was important to establish that climate change was a threat for humanity. Copenhagen was for many a painful experience. After that, the global environment governance for climate change became a global economic governance issue. It focused on the transformation to a low-carbon economy.

Now we are facing a “counter-transformation,” defined by protectionism and anti-globalization. A solution would be linking the debate on climate change and the oceans with the 2030 Agenda for Sustainable Development, which has a component of social inclusion. The field of climate change and environment is now the only humanity project left standing. So “togetherness” can happen in this field, where there’s global consensus.

Secondly, the 2030 Agenda and the Paris Agreement create a global social contract for a wealth model that is compatible with a 10 billion-person civilization. It’s combining planetary issues with social inclusion, while trying to address the fact that some people feel threatened by globalization. Seen from this angle, the 2030 Agenda and the Paris Agreement can be a modernization project for the economy; an inclusiveness and justice program answering the anti-globalisation movement; and an international cooperation and peace project.

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The Paris Agreement set up perhaps the simple part of the equation because it established a bottom-up process where every nation is responsible for its own territory. But nobody feels responsible for the oceans and the high atmosphere. So this is a new challenge to global governance that must be met.

The questions are how to rethink the multilateral process; how to overcome the strict interpretation of territoriality; and how to involve the private sector and employ the new technologies.

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China is developing faster than other countries, but it also shows that the development path can be innovative. It shows that the economy could be developed at a lower environmental cost and by using a lower-carbon approach. This is unprecedented in the history of industrial countries. Only developing countries today can take this innovative approach.

However, China has its strengths and weaknesses. It's a large country, which can do things on a large scale, with a centralized government that is maybe quicker to implement policies. But it also has a huge fiscal burden having to provide social safety to so many people.

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Xie Zhenhua concluded the open forum discussion by saying that countries at different development stages face different issues. Maybe a major sustainable development platform is needed to discuss these issues. This platform could be used for addressing the economy, disparities between the rich and the poor, development, social issues, employment, political diplomacy and environmental issues.

Maybe in the future CCICED will align climate change targets with SDG targets and with China's own objectives for an ecological civilization. The CCICED needs to reform in order to play a better role in the South-South cooperation framework.

2. Plenary Session

CCICED Secretary General and China's Vice-Minister of Environmental Protection **Zhao Yingmin** called to order the fifth meeting of Phase V. In his new role as secretary general and on behalf of the Chinese government, Mr. Zhao welcomed all participants.

Other CCICED changes of note: Canada's Minister of Environment and Climate Change **Catherine McKenna** has been appointed international executive vice chairperson, and the Secretary-General of the Netherlands Ministry of Infrastructure and the Environment **Lidewijde Ongering** and ADB Vice President **Stephen Groff** have been appointed Council members.

Zhao Yingmin introduced the first two speakers of the plenary session: **Catherine McKenna** and **Xie Zhenhua**.

a. Speech by Catherine McKenna, CCICED International Executive Vice Chairperson and Minister of Environment and Climate Change, Canada

Catherine McKenna welcomed all participants and thanked **Zhao Yingmin** for chairing the session. She then made the following remarks:

This year's AGM, focusing on China and the world, will discuss the steps China is taking to expand its contributions to international development and global environmental security. China has accomplished so much in this field, but the Council needs to do more to ensure these efforts have the greatest possible impact.

China's environmental legislation has improved, but there needs to be a better legal and regulatory base for China's ecological civilization efforts for green development and environmental protection. China's efforts include the war on pollution, the green innovation initiatives in the 13th FYP, the domestic implementation plan for the SDG 2030 and China's commitment to the Paris Agreement and other global accords.

Ecological civilization needs to be better promoted in China and abroad, especially among developing countries and international organizations. China should consider establishing a comprehensive action guide for its green initiatives abroad. It also needs to strengthen its leadership on green and global value chains and send clear policy signals to Chinese enterprises that green commerce is essential.

The launch of a national carbon market next year is a big step in the right direction. It will provide incentives for businesses to pursue clean energy and low-carbon innovation.

South-South cooperation efforts could help ensure that partner countries participate in greening global value chains.

CCICED will submit this year's recommendations to the State Council. Planning for Phase VI will focus on the period between 2020 and 2030, which is full of opportunities related to innovation technologies, greener lifestyles, big data and the sharing economy. CCICED must also focus on the oceans.

CCICED's work is important in the context of the implementation of the SDGs, the Paris Agreement and the agreement under the Montreal Protocol to phase out HFCs. The Council should continue to collaborate with its international partners and members to address concerns such as gender equality and climate change.

b. Speech by Xie Zhenhua, CCICED Vice Chairperson, China's Special Envoy on Climate Change and Deputy Director of the Committee on Population, Resources and Environment, CPPCC

Xie Zhenhua indicated he was speaking on behalf of CCICED Executive Vice Chairperson and China's Minister of Environmental Protection **Chen Jining** on the theme of this year's AGM, Ecological Civilization, China and the World:

The concept of ecological civilization was first formulated in 2007 during the 17th Party Congress. Over the past decade, the concept has been evolving and changing, and since the 18th Party Congress it has become one of the most important concepts directing China's governance and administration. It is embedded in the ideas and activities of the Chinese Communist Party, as well as in China's economy, politics, society and culture. It

will influence China's domestic and foreign policies and legal structures in coming years.

For example the strategy for the Yangtze Economic Belt now focuses on conservation as opposed to development. The OBOR initiative, the establishment of the AIIB, China's approval of the Paris Agreement, the Nagoya Protocol, the Minamata Convention on Mercury, the revisions to the Montreal Protocol on the depletion of the ozone layer, as well as China's national program for achieving the 2030 Agenda goals and putting green finance on the G20 Hangzhou summit agenda, were all actions influenced by the concept of ecological civilization.

Ecological civilization is linked to the Chinese philosophical idea of unity between humanity and nature. By 2020 China hopes to take major steps toward the idea of a conservation society and a new form of relationship with the environment.

There are differences between ecological civilization and sustainable development. While sustainable development integrates economic, social and ecological aspects, ecological civilization is a "five-in one" concept: it adds to this the political and cultural dimensions of development, which refer to changes in the behavior of government, workers and ordinary citizens.

The theoretical basis of the two concepts is also different. While sustainable development is about the development's burden on the environment, ecological civilization starts from the social and cultural aspects of China's economic and social development. The two concepts' value systems also differ. Sustainable development is not attached to the values of any particular political party. Whereas ecological civilization is not only a concept related to development, but it also expresses the vision of China's Communist Party.

It is important for China to promote the concept of ecological civilization, because: First, ecological civilization is a Chinese upgraded version of sustainable development. Secondly, it is going to be an important part of global sustainable development. Thirdly, China is promoting the concept of ecological civilization as a contribution to global sustainable development.

In the context of current climate change conditions, no country's ecological security can be guaranteed, despite the multilateral agreements and conventions. As President Xi Jinping stated, countries need to work together to deal with this very complex international situation. Therefore this AGM should address some fundamental problems, including ways in which China can accelerate its own green transformation, collaborate with other countries, and promote global ecological civilization and green development.

Xie Zhenhua proceeded to make his own remarks to the plenary:

CCICED has grown and matured over the past 25 years. CCICED's recommendations have played an important role in China's policymaking. In the future, CCICED should not only support China's ecological civilization but also serve as a channel between China and the West, and as a way for China to share its lessons and experiences with the world.

c. Presentation of the CCICED Issues Paper

CCICED International Chief Advisor **Art Hanson** gave the following presentation:

In the past decade, China has been trying to "refill the glass" of environmental protection. These positive measures are going to have a snowball effect, though challenges are going to increase. The question is what can we do in the next three to four years to make an impact on the situation in 2030 and 2050.

China's leadership is key to accomplishing our global climate goals. By 2050 if not earlier, China should become first among the world's green leaders.

China should be a leading supporter of a green South-South cooperation. The underlying idea of our paper's 10 issues is that China will have an attitude of turning challenges into opportunities. This is also an opportunity for the world to collaborate with China.

We need to accelerate the timeline for many of the goals we've set for 2030, and then we need to set more rigorous goals. This is the responsibility of all countries, not only China.

CCICED International Executive Vice Chairperson **Catherine McKenna** chaired the next section of the plenary, focusing on the CCICED's upcoming priorities. She made the following remarks on gender equality and climate change:

In 2016, climate change actions gained momentum through measures such as the ratification of the Paris Agreement, the amendment under the Montreal Protocol on HFCs, and the ICAO agreement to reduce emissions from the international aviation industry. Nevertheless, there are gaps in the global efforts, particularly on the issue of gender and climate change.

This is a very good example of how we need to link climate action to the SDGs. Women are a vulnerable population that is often disproportionately affected by climate change in developing countries due to the different gender roles and inequalities. Women

constitute the majority of the world's poor; they depend on the natural environment for their livelihoods, which climate change now threatens. In most developing countries, women and girls are responsible for collecting traditional fuels and water; climate change increases the distances they need to travel to feed their families. It puts their physical safety at risk. Women also often face limited access to resources, and this constrains their mobility, flexibility and capacity to adapt to changes in their environment. In addition, social norms and institutional barriers often restrict women from full participation in decision-making and in creating the necessary strategies.

Women are valuable agents of change and innovation, who possess a strong body of knowledge and expertise that can be used in climate change mitigation, disaster reduction and adaptation strategies. Climate change actions have a greater chance of success and are more sustainable when they take into account and respond to the different views and needs of women and men. This means systematically integrating gender considerations including local women's knowledge and practices into climate adaptation and mitigation plans. It also means engaging local women, women's organizations and civil society organizations in the planning and implementation of climate change initiatives.

As a global community, we need to be committed to addressing gender inequality and giving a voice to women in climate change decision-making. The China Council is well placed to produce gender-disaggregated data that will help to develop strong and effective policy options for global engagement on this issue. An integrated approach to addressing climate change and implementing the SDGs will also help China and the world focus on advancing women as agents of change and innovation and valuing women's traditional knowledge.

Addressing air quality has many co-benefits including tackling climate change, trans-boundary air pollution and human health. China's efforts on short-lived carbon pollutants such as black carbon and methane have achieved results. China also helped to advance the Kigali Amendment to phase down HFCs, and this contribution has been key.

d. Discussion on the CCICED's Upcoming Priorities

Xie Zhenhua, CCICED vice chairperson, gave the first speech on this topic and made the following remarks:

China is keeping its climate commitments. It has integrated the concept of eco-civilization in its strategy to implement the SD 2030 Agenda and the Paris Agreement.

China's pilot carbon trading system is underway. The seven pilot programs have generated a transaction volume of 3.2 billion RMB, with an average price of 30 RMB per

ton of CO₂. Next year, China will launch its national carbon trading market, which will hopefully mature by 2030.

China, Japan and Korea are discussing establishing a unified carbon market for Northeast Asia. China is also considering collaborations with the E.U. and regional U.S. carbon markets, but each country's carbon market should first mature before linking up with others.

The Chinese government is advancing South-South cooperation while maintaining South-North cooperation. Since 2011, China has allocated 270 million RMB for climate change projects in southern island countries and African countries. Vice Premier Zhang Gaoli has announced that China will double its financial support from 2017 levels and set up a South-South cooperation fund. President Xi announced in Paris that China would establish a fund for the cooperation among developing countries.

At Marrakech we discussed linking the South-South cooperation framework with the OBOR initiative. The 71st Session of the UN General Assembly showed international support for OBOR, an initiative that could enable China to distribute its Internet, green and renewable energy technologies to other partner countries. It could also establish a low-carbon infrastructure and help strengthen developing countries' disaster mitigation and prevention capabilities.

China has completed its 2050 strategy, but its low-carbon approach will be further adjusted based on the economic situation, the Paris Agreement and the Marrakech requirements. The government will share the details of this strategy with the CCICED and, eventually, the general public.

Barbara Hendricks, CCICED vice chairperson and Germany's Federal Minister for the Environment, Nature Conservation, Building and Nuclear Safety, made the following points:

Countries should use low-carbon economic development in order to restructure their economies and meet various environmental targets. Through its implementation of ecological civilization, China is providing a good example to other countries.

More international conversations are needed to help meet sustainable development targets. Germany has established an environmentally focused online network of countries. The German government will organize a meeting on sustainable goals in Berlin next year, and it hopes China can join. Germany will also host the G20 summit and will put the SDGs on the agenda. It's time to go beyond theories and ideas to adopt specific measures.

Germany has adopted a host of specific programs and initiatives as steps to achieving the SDGs. The CCICED should consider that most countries in the world don't have enough capacity to deal with environmental pollution. Finally, businesses and the whole of society should contribute to achieving sustainable development.

Zhou Shengxian, CCICED vice chairperson and deputy director of the Committee on Population, Resources and Environment (CPPCC), made the following remarks:

China's guiding principles have changed from developing first and trying to solve pollution later, to healthy development. China cannot continue to pursue rapid growth because that has created a lot of environmental issues.

Environmental conservation is going to affect the economy. Certain regional governments are being caught just mouthing the words and not implementing the policies. This needs to be dealt with.

Many people still think smog is a natural phenomenon related to prevailing winds. This is detrimental to any attempt to deal with the smog. The public needs to be better educated on this issue.

Finally, **Achim Steiner**, CCICED vice chairperson and director of the Oxford Martin School, emphasized the following issues:

We can look back at 1 1/2 years of breakthroughs in climate change mitigation, including the SDGs, the Paris Agreement, the Kigali Amendment, the ICAO decisions and the investment in new technologies and low carbon pathways. We have a different society from just a few years ago, despite some ongoing misleading narratives.

The Council's journey has shown us that environmental pollution and sustainability need to be addressed in a systemic way, which involves an economic policy-driven agenda. Today, societies around the world are expressing frustration with the current economic model. China, through its own sometimes painful journey, has discovered that in the economic model alone does not necessarily lie the vision of the future of a nation. Ecological civilization expresses a vision of a society not just in environmental terms but in the broader sense as well. The Council can help this concept mature.

Economic transformation is at the heart of the Paris Agreement. We can't hope to achieve its targets on today's economic models, markets and business models. And yet this transformation is enormously complex and is paralyzing political and business leadership around the world.

In order to solve the climate problem we must focus on co-benefits, such as between pollution and health, and between agricultural productivity and water resources. This

way, the transformation becomes politically, socially and economically more arguable and implementable.

The challenge of climate change is compounded by the challenge of making land-use decisions that will allow 10 billion people to survive on this planet while maintaining a functional natural environment.

The Oxford Martin School looks at the full spectrum of challenges in the 21st century including the power of technology. It is possible that in our cities by 2050 we may need less than 60 percent of the vehicles we have today in order to provide a higher quality of mobility for residents. Emerging technology pathways such as autonomous vehicles are only 15 to 20 years away.

The advances in renewable energy technology storage and grid management systems also make it conceivable that by the middle of the century, access to electricity will be the least of our concerns. Financial markets and green finance are another component of this transformation.

Regarding South-South cooperation, Africa in 30 years will double its population to 2 billion people. It will be the next frontier of industrialization, and it will determine whether or not we achieve the Paris Agreement. China's work for an ecological civilization will be relevant to the future choices of people on a continent such as Africa.

We are facing a politically difficult moment in some parts of the world. We need leadership and wisdom in order not to lose the momentum to act on the Paris Agreement.

e. Briefing on the Open Forum Discussions

Liu Shijin, deputy director of China Development Research Foundation and former vice-president of the State Council's Development Research Center, briefed the plenary on the discussions during the open forum on the new growth impetus for green transformation and prospects for sustainable development:

China has seen the lowest economic growth rate this year, but coal consumption and carbon emissions have also declined. There are still cities and regions across China that pollute first and try to remedy the situation later. There's a contradiction between green development and companies' profits. The Council should review the best practices in this area.

The increased popularity of apps for takeaway food has led to more plastic and food waste, which should be dealt with. On the issue of green standards for businesses,

enterprises that want to invest abroad should be required to uphold environmental protection standards.

To conclude, China's consumption and supply chain structures need to be reformed to support green development. Public awareness of environmental issues has improved, but some of the green growth policies are not being efficiently implemented.

f. Policy Research Reports

Liu Shijin, co-chair of the Task Force on *China's Green Transformation Outlook 2020 – 2050* presented the preliminary findings of his team. Here were the main points he made:

The report aims to answer four questions:

1. What is green transition, and what is the long-term perspective on it?
2. Against what historical background will the green transition occur in China?
3. What is the green economy like?
4. How can we accomplish this green transition?

Looking at the rationale for a green transition, green development was often seen in the past as a high-cost endeavor. It's important to emphasize that green development is actually an opportunity and can provide new drivers of economic growth. For example, there's an increasing demand in China for green consumption, which opens up new possibilities.

Green development has also driven innovation in China, and a growing number of green businesses are being set up. Green development also provides employment and strengthens the links between China and the world, especially through trade and technological exchanges. There needs to be a new narrative on green development, which shows that it can solve some of the drawbacks of traditional development models.

The task force has produced a policy framework and a roadmap for green transformation. The policy framework includes five policy packages:

First, we need to create a new narrative of green transformation to help the public embrace the concept and to address negative perceptions. This can be accomplished through pilot projects, for example. Second, we should level the playing field in green development. Third, green products should be incentivized. Fourth, we should reform the subsidies for green industries as a payment for their provision of environmental services. Finally, we should encourage research and development in green industries, as well as entrepreneurial incubation and infrastructure.

The roadmap from 2020 to 2030 is more concrete and includes policy-oriented measures, while the roadmap between 2030 and 2050 is more strategy and vision-oriented.

Task Force co-chair **Jacqueline McGlade**, chief scientist and interim director of UNEP's Division of Early Warning and Assessment, added the following remarks:

The vision toward 2050 entails moving from a conflicting set of cycles to a virtuous cycle, where there's reinforcement at every point. It entails intervening in the economy, in the environment, in society and culture.

In the short term, it requires investment to help industries with potentially stranded assets to become profitable by doing business in a new way. Agreements from different areas will need to be regarded in a comprehensive way. Policies will need to be discussed through the lens of cities, which could help shift the mindset through education and global connection.

In the end, moving into a greener environment requires interventions everywhere. For that we need innovation in thinking, in technology, in governance, legislation and finance, and in how the economy will operate.

The Paris Agreement takes us only to 2030. If we're successful in reducing the GHG emissions by then, we'll have to start all over again. So it's important to keep 2050 in mind as we develop thinking around ecological civilization.

Sun Youhai, director of the Institute of Applied Law of the Supreme People's Court of the People's Republic of China, co-chair of the *Task Force on Rule of Law and Ecological Civilization*, presented the team's report and made the following points:

The report looks into five areas: how to implement the SDG 2030 Agenda, and how to upgrade China's environmental legal system, judicial system, law enforcement and law compliance.

The task force suggests establishing a legal guarantee scheme for China's sustainable development. In September, the government promulgated China's national plan for the implementation of the SDG 2030 Agenda - a legal guarantee scheme is an important tool for achieving this.

By 2020, the legal system for ecological civilization should be established, and by 2030 it should be fully developed. The task force suggests creating a hazardous chemicals safety and environmental management law. China should also promulgate a national protection law targeting overdevelopment issues, encompassing national parks and conservation areas. A special law should address atmospheric environmental protection in the Beijing-Tianjin-Hebei region, with an environmental code required to harmonize

different laws. The task force also suggests that MEP establish a regulatory bureau for the management of watershed environments and set up an environmental protection bureau for the Beijing-Tianjin-Hebei area.

Currently, legislation in other fields undermines the effects of the environmental law, and this should be addressed. It's also important to strengthen environmental judicial safeguards. Trial environmental cases need to be treated more professionally, with the government explicitly encouraging the public and NGOs to file environmental lawsuits.

Task Force co-chair **Donna Campbell**, former independent chair of the New South Wales (NSW) Marine Compliance Taskforce, and former executive director for legal services of the NSW EPA, Australia, added the following comments on the report:

Under developed environmental legal systems, it's not only citizens and businesses that need to comply with the law, but also government institutions. A cost-effective legal system aims to maximize voluntary compliance while minimizing the need to take enforcement action, which is costly and time-consuming.

Imposing legal obligations on institutions usually happens through procedures, which are precautionary in nature — for example issuing a pollution permit to allow a steel plant to operate. This process happens at a critical early point, before the plan is implemented or the development is carried out. Regulatory agencies have discretion in their decision-making, and their decisions have the force of law.

Regulatory agencies exercise discretion, so this needs to be supervised; the decision-making process should be transparent and involve the community and government agencies. For example in Australia, most environmental court cases are about ensuring these procedures are followed, not to remedy the damage that has already occurred.

Regulatory agencies must adopt different strategies depending on how intentional the damage was. They must provide education, support and guidance to those willing to comply; on the other end of the spectrum, they must subject those who broke the rules intentionally to the full force of the law.

Public supervision is key for this system to work well. The public needs to trust that judges are independent and make decisions according to the law and the facts. Secondly, judges, lawyers, prosecutors, investigators and scientific experts need to have the capacity to deal with environmental issues. The court process should be improved, in particular the rights of citizens and NGOs to bring cases to court in the public interest to protect the environment.

General debate and comments

The knowledge, research and education dimension should be added to the plan for green transformation by 2050. The education system should be compatible with the new set of values.

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The oceans should be added to the policy research report on China's green transformation outlook 2020 – 2050.

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Regarding the report on the rule of law, it will be presented to the State Council; circulated among governmental department and agencies; and published on the CCICED website. That is usually where CCICED's role ends. It's for the National People's Congress to decide if it wants to take it further and use it in the formulation of new laws.

3. Open Parallel Forums

a. Open Forum 3: Sharing Economy and Green Development

Xie Zhenhua, CCICED vice chairperson, and **Catherine McKenna**, CCICED international executive vice chairperson co-chaired this session. **Catherine McKenna** made the following opening remarks:

The sharing economy is emerging as an important area related to environmental protection and climate change mitigation, holding both promise and challenges. Car sharing, for example, can lead to fewer cars on the road and fewer emissions; crowdsourcing could be used to bring more creative environmental solutions to market.

While the traditional market economy is dominated by competition, the Internet-based economy is defined by common development and coordination. The challenge is to figure out how to harness the sharing economy and the social networks that support it to encourage sustainable living, resource efficiency and a circular economy.

Catherine McKenna introduced **Wang Xing**, CEO of Meituan.com who made the following remarks:

Meituan is a food delivery app that connects customers with restaurants. It has 100,000 customers daily; 2 million people have used the app in the past two years to order food. The platform registers 8 million orders daily of dishes ranging from seafood to hot pot. Delivery time is maximum 28 minutes.

Because food is bought and cooked in bulk, it's more economical and convenient than cooked in each household. Customers can give feedback on the quality of food, delivery

speed and other factors. The delivery is done through electric motorbikes. And Meituan states it is careful about sourcing materials.

Liu Qing, president of the ride-sharing company Didi Chuxing, emphasized the following points:

Chinese people are aspiring to higher standards of living; at the same time, we're trying to balance the use of resources. Didi's mission is to make it easier for people to move around. China has 800 million urban dwellers, and many of them have transportation issues. Didi deals with 20 million rides daily in Beijing. With only 2 percent of the Chinese population sharing rides, the potential is huge. Every day on the Didi platform, there are 6 million carpooling opportunities. This trend will increase and help to lower carbon emissions.

Car sharing and carpooling could also lead to a higher adoption of electric cars. Didi drivers who log 20 to 30 rides every day might consider buying an electric car more cost-effective than a regular car owner. Tesla has started selling electric cars on the Didi platform. The company hopes to use big data for environmental protection.

Alibaba Vice President **Gao Hongbing** made the following presentation:

Taobao has engaged in the sharing economy from the beginning. It's not only a platform for buying and selling products; it's also pooling information on supply and demand and connecting billions of consumers to millions of suppliers. A study by McKinsey showed that 39 percent of the consumption triggered by Taobao was originally suppressed by the traditional marketplace. Taobao has created more than 15 millions jobs; if we add in manufacturers and traders, then the number goes up to 30 million jobs.

In 2016 there were 15 million "green consumers" on Taobao who are interested in environmentally friendly products, such as wood furniture that is free of various chemicals. People are willing to pay 30 percent more for environmentally friendly products.

Online consumption has led to nearly 30,000 tons of carbon emissions reduced. For example, the environmentally friendly home appliances that are sold on Taobao and other platforms are saving enough energy to power all of China for 25 days. Taobao is replacing its paperwork with e-forms, which amounts to a carbon sink equivalent to 36 million trees. For AliCloud in Hangzhou, Alibaba built a water-cooling system that generates power for the cloud center. The system pumps water from Qiandao Lake for cooling, then pumps it back into the lake. This has led to 10,000 tons of water saved.

Big data allows Taobao to coordinate with its stakeholders to improve the quality and efficiency of its services and to optimize resource use.

David Aikman, chief representative officer for Greater China of the World Forum Economy (WEF), made the following remarks:

The sharing economy is not a bubble. It's here to stay, and it's key if we are to sustain 9 billion people on the planet by 2050. Young, urban professionals now have different expectations in terms of the quality of life. They emphasize convenience and don't insist on owning expensive assets.

The confluence of mobile communications, technology, social feedback loops, payment systems and big data is allowing for the creation of new business models. Chinese are quick to adopt new technologies. Mobile wallets from Tencent and Alibaba knocked \$20 billion off banks' payment fee incomes in the past year. OFO and Mobike, bike-sharing services that were established only a few months ago, already have fleets of around 100,000 bicycles.

Platforms like T-Mall have created new opportunities for people in villages, while other trends indicate the sharing economy could hasten urban migration. The phenomenon deserves a nuanced study.

Trust is key in the sharing economy, but there's also a need for a regulatory framework to protect consumers while nurturing innovation. Legal and tax frameworks need to be agile and iterative because the pace of business innovation is faster than the pace of legislation. WEF and CCICED have worked on a white paper on the sharing economy.

During the Rio Olympics, Aribnb provided accommodation for 500,000 visitors, the equivalent of 250 hotels. In New York City, about 80 percent of the journeys could be shared instead of using taxis and individual cars. The total number of trips could drop by 40 percent. In China, Didi takes 2.5 percent of the cars off the road. The numbers are fascinating, but more research is needed. WEF will look more closely into the sharing economy, especially its environmental effects.

General debate and comments

A Didi customer recently explained to her driver that she doesn't want to own a car anymore because it's easier to shop online. Millennials in particular are embracing this. Seventy percent of Didi users don't have a strong desire to buy a car or change their existing one. Didi has been talking to car manufacturers about designing cars for specific purposes, such as increased privacy during car sharing.

As for regulations, Didi is pushing for the legalization of ride sharing. Car-sharing companies need to work with regional governments on issues of environmental

protection and employment. Didi has 15 million registered drivers; about 4 million of them had previously lost manufacturing jobs.

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There are many advantages to the sharing economy: it provides tools to raise awareness and engage people with environmental issues; it creates opportunities for innovation through open sourcing and outsourcing of information; if linked with the Internet of things and with bioengineering, the sharing economy can create incredible possibilities; it could help to de-materialize our society and move toward a circular economy.

On the other hand, the sharing economy is difficult to regulate because changes happen so quickly that you're always running behind the facts.

A strange phenomenon highlighted by recent election results is that instead of bringing society together, the shared economy is extremely splintered. For example, on Facebook we select people who reinforce our own views.

If we move from traditional banking to bitcoin, power will simply move into the hands of a new group of people. It will be more difficult for the government to regulate because it's moving too fast.

If we rent out everything we don't use, we'll create a monetized society. By some estimates, 80 percent of the world population will have no formal job by 2050 and will depend on the shared economy for money.

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On the issue of regulation in case of food contamination: Meituan works with more than 5 million restaurants, which are regulated by the China Food and Drug Administration (CFDA). When restaurants register on the platform, they are required to post their qualification certificates. Users can post reviews at any step of the process. If there is a small incident, Meituan will contact the supplier. If it's an incident on a massive scale, Meituan will work with regulators.

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With Didi, if an accident happens, mobility technology and tools can be used to address the cause. When drivers register on the platform, they need to submit three types of license, proof of car ownership and quality checks of the car. Didi uses facial recognition to ensure the driver is the same as the person who registered. The passenger can share the trip information in real time with family or friends. Also, there's a one-click alarm function, which connects the passenger with police. The passenger can file voice complaints if he or she thought the driver was potentially dangerous. Didi has a risk and

safety insurance of up to 12 million RMB premium for each passenger and driver. And the mortality rate per 100 million miles last year was a third of the world average.

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Regulators, governments, consumers and producers should use technology tools and innovation to collaborate and coordinate. Taobao sends out 40 million parcels daily, and 1.1 billion types of items and commodities are traded on the platform. This is all enabled by smart technology and big data. Taobao uses consumer comments and ratings of vendors. And every vendor who registers on the platform needs to deposit into our consumer protection fund; the funds are then pooled together and used to compensate consumers. For more serious issues, Taobao works with administrative bodies and courts.

On the issue of incenting consumers to buy local products online in order to cut the long supply chains: Taobao lists the sources who are closest to consumers first. The company uses big data, which can tell consumers how they can have their items delivered faster. Taobao is trying to combine parameters such as resources, costs and benefits, and efficiency to help consumers and suppliers understand the benefits of a smaller carbon footprint. It's an issue of economics, but it also has to do with a new set of values.

On the issue of putting information on environmental pollution and air quality in the hands of citizens: Residents can monitor air quality in various locations, including indoors, in real-time by using a variety of apps.

The office-sharing company Soho has built more than 5 million square meters of office buildings in Beijing and Shanghai. By using Internet technology, Soho has installed millions of built-in sensors into buildings, which constantly monitor power consumption and temperature. All the information is pooled by a data center allowing for real-time smart controls of heating and air conditioning. This has led to improving energy efficiency by 17 percent.

Wangjing Soho in Beijing has an area of 500,000 square meters and offers office space to thousands of white-collar workers. The energy consumption per square meter is 70 KWhr, compared to a city average of 116 kWhr per square meter per year. This project alone saves more than 24 million KWhr of power yearly. If the data center could regulate the energy consumption for 1,000 buildings, it could help save power equivalent to planting 550,000 trees. That would amount to saving carbon emissions from half of all the vehicles in Beijing in a year.

A Soho intelligent platform calculates the amount of space necessary to a worker, including shared space, at 5 square meters. From 1997 to 2014, 500 million square meters of office space has been built in China. If 10 percent of this space could be shared among

different organizations and used efficiently, it would provide space for an additional 5 million workers and cancel the need for new office buildings.

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On the issue of how big data can help regulators and policymakers:

Government and businesses should share big data with one another. Users who are blacklisted on Taobao could also become blacklisted on other platforms, and the government could prevent them from buying plane or train tickets, for example. Similarly, Didi could exchange information with traffic police and city planners to help with traffic planning.

From Soho's perspective, the government should change the regulations to allow for different companies to be based in the same office space. Private companies could share their data with the government and would probably do a better job at collecting it.

The restaurant industry needs a new regulatory system to accommodate the changes brought by the food delivery apps.

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We need to see whether big data really helps to reduce emissions and is not only a consumption choice. In Didi's case, the government still needs to encourage public transportation not car usage. Didi may be convenient, but people are still using cars instead of public transportation. Maybe in the future these will be smart or electric cars, but today that's not the case.

Takeaway meals may be more efficient and convenient, but do they reduce overconsumption and carbon emissions?

Similarly, online shopping is encouraging people to buy stuff they wouldn't have otherwise bought, and that doesn't reduce carbon emissions. Packaging is a big problem with online purchases. The sharing economy must be analyzed more carefully to make sure it can reduce carbon emissions.

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The sharing economy should also be considered from the perspective of public goods such as national parks. It should work on including the circular economy and promoting the concept of ecological civilization.

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Catherine McKenna opened the second half of the forum and introduced **Sun Youhai**, director of the Institute of Applied Law of the Supreme People's Court of the People's Republic of China who highlighted these points:

The sharing economy has many benefits but can also give rise to conflicts and disputes. These problems are difficult to address because of the lack of a sound legal environment. China needs to establish the fundamental principles of the sharing economy.

China also needs to learn from the experiences of other countries such as Japan, South Korea, and the U.S. and create a law governing big data. Efforts could be made to establish 'ethical credits', similar to credit worthiness in banking. Regulators need to learn to respond more quickly and stay on top of the changes in technology. They also need to educate the general public and help citizens who are less tech savvy to benefit from the sharing economy.

Zhou Wei, Council member, professor and president of the Research Institute of Highway, Ministry of Transport, made the following remarks:

As society changes, people are more concerned about environmental protection and perhaps more willing to give up on privacy and private use, so they're more willing to share. The economic incentive of sharing is also important. Sharing is economically competitive, but it can take a toll on traditional industries and lead to even more idle resources. The government faces the challenge of how to regulate the new and existing models. The government also faces the issue of online privacy and security. It should monitor these businesses while allowing them enough space to develop.

China should also consider new business types while taking care of the old and ensuring fair competition in the market. The sharing economy could inspire traditional businesses to modernize. For example in rural areas, postal services are experimenting with using shuttle buses to deliver mail, in order to also provide transportation for people and deliver more parcels. The bottom line is the sharing economy should be oriented toward public good and progress in a green direction.

The economist **Zhang Xiaode** underlined the following issues:

Resources used to be allocated based on cost. But in the sharing economy, cloud computing plays a role in the allocation of resources and functions somewhat like a "nervous system." China's market economy was essentially built upon the government and enterprises; now there is a multitude of actors, interconnected and interacting with one another. This economic revolution has its roots in new production and consumption patterns. The sharing economy can address overconsumption, which will hopefully then feed back to curb overproduction.

The capitalist economy is production-driven and controlled by a few because this requires large investments. Now everybody can participate in the economy – it's people-driven rather than investment-driven.

We have now experienced three economic factor revolutions: the first was spurred by Watt's invention and driven by technology; the second was driven by scientific innovation; the third was driven by knowledge. This fourth revolution is driven by the wisdom of the crowd, which has never been fully tapped before. Governments need to realize they are no longer the sole regulator of this system. Similarly, environmental protection is changing from being primarily driven by government to being driven by the individual choices consumers make.

Dominic Waughray, senior director and head of environmental initiatives of the World Economic Forum (WEF), added the following key points:

This fourth industrial revolution comes at an opportune time for China as it seeks to rebalance its economy for 2030 and 2050 for harmonious growth and green development. WEF estimates that China's sharing economy is worth \$230 billion per year and growing at a yearly rate of 40 percent.

WEF conducted research with Airbnb and MIT Senseable City Lab on accommodation during the Rio Olympics. Out of 85,000 visitors in Rio de Janeiro during that time, 48,000 booked their accommodations on Airbnb. That made it unnecessary for Rio to build 257 medium-sized hotels, which saved resources and emissions but also meant jobs not created. But the Airbnb rooms were spread across 70 city districts, which meant that many local restaurants, shops and businesses got to serve tourists – visitors were not clustered in a central business district run by international corporations. The economic footprint of the Olympics was more inclusive, which also helped alleviate traffic congestion because people were coming from different directions.

We estimate that in New York City, 80 percent of the rides could be shared, reducing traffic by 40 percent. Across China, people share an average of 1,143,000 rides per day, which saves 510 million liters of fuel daily. This translates into a reduction of 13.5 million tons of CO₂ emissions per year, which is equivalent to one runway at London Heathrow Airport.

The sharing economy also plays a role in decentralizing renewable energy, where you can capture and sell electricity back to the grid, thereby transforming the utility business model. The International Energy Agency (IEA) finds that in 2016 for the first time, while the world economy grew, emissions from industry and energy stagnated or fell slightly.

The public and private sectors could share data to build smart urban planning and environmental monitoring strategies and provide real-time solutions to problems of air quality and traffic congestion. Regulatory system must become more nimble and collaborative.

This fourth industrial revolution could put China at the forefront of the new growth model for the sharing economy and green development.

b. Open Forum 4: South-South Cooperation and Greening of the Belt and Road Initiative

This forum was co-chaired by **Li Yong**, CCICED member and director general of the United Nations Industrial Development Organization (UNIDO) and **Achim Steiner**, CCICED vice chairperson and director of the Oxford Martin School. **Li Yong** made the following introductory remarks:

The task force report *South-South Cooperation for Ecological Civilization* lists five priorities for South-South cooperation: First, it should be consistent with the SDGs 2030. Secondly, it should be adaptable to countries at different stages of development. Thirdly, it should provide solutions that balance livelihoods and the environment. Fourthly, it should use innovative technologies and development models. Finally, it should promote environmentally friendly and low-carbon infrastructure technologies and investments.

The report also provides goals for 2020, 2030 and 2050, underlining the fact that many actors want to cooperate with China on economic or social issues, but few are interested in environmental cooperation, which is of concern. Country leaders and the public need to understand that environment and development go hand in hand.

The Director General of the International Network for Bamboo and Rattan **Hans Friederich** made the following comments:

The International Network for Bamboo and Rattan is based in Beijing and represents 42 countries, 41 of them from the Global South. This is an example of South-South cooperation under Chinese leadership.

There are more than 14,000 species of bamboo in the world - all grass species. China's bamboo industry is worth \$30 billion and employs 8 million people. Bamboo can be an efficient source of energy and can help avoid deforestation. It's a good construction material, especially for earthquake zones, because it bends and doesn't break. The global bamboo and rattan trade is worth \$60 billion.

Bamboo absorbs CO₂ faster than any tree species and can help restore the soil's fertility and productivity. It could be used in the African countries included in the OBOR initiative and that have large tracks of unused land. The International Network for Bamboo and Rattan is working with the Liberian government to use bamboo for economic development.

The China Green Carbon Foundation has produced a methodology to calculate carbon capture from bamboo. Alibaba in 2011 bought the first lot of carbon credits from planting bamboo. Ghana has incorporated bamboo and rattan into its green development strategy. The Philippines requires that 25 percent of all furniture in schools be made from bamboo, supporting local industry and raising awareness among students.

Zhou Guomei, deputy director-general in the Department of International Cooperation of the Ministry of Environmental Protection (MEP), China, highlighted the following points:

China is becoming more active in global environmental governance in the context of the SDG Agenda 2030 and the Paris Agreement. In 2014 during the Asia-Pacific Economic Cooperation (APEC) meeting, China proposed establishing an Asia Pacific green supply chain; this year during the G20 summit in Hangzhou, China highlighted the importance of green finance.

China is also accelerating its own green transformation, restructuring its industries and moving up the value chain. The 13th FYP stresses not only China's ecological civilization but also intensifying international cooperation and building a green OBOR.

The Task Force has put forth three proposals: first, China should establish an international development bureau to improve coordination among international initiatives; China should take into consideration people's livelihoods and needs for microfinance when designing green South-South cooperation projects; finally, environmental protection must be a driving force for OBOR.

China is building two platforms, for big data, and for an environmental protection technology and industrial information network.

Hu Tao, China program director for WWF U.S., made the following remarks:

China should promote green products, trade and investment as part of both OBOR and South-South cooperation, by reducing taxes and facilitating investment. China is investing in renewable energy in African countries, which has a major impact on people and the environment. China could also help promote organic tea from Kenya on its

domestic market. The government should also encourage its citizens to pursue eco-tourism around the world.

Zou Ji, deputy director general of the National Center for Climate Change Strategy and International Cooperation (NCSC) of the National Development and Reform Commission (NDRC), and director of the Program of Energy and Climate Economics at Renmin University emphasized these issues:

The world can build prosperity after the global recession through sustainable development. The South-South Cooperation framework we are putting forward should be understood in the context of the SDGs 2030. We believe this framework will contribute to the welfare of poor people through innovation. We are looking at an upcoming third wave of industrialization and modernization in Africa, South and Southeast Asia and Latin America. These countries need to follow a more innovative development path than during previous industrialization periods.

Third, infrastructure investment should be integrated with issues of sustainable development, climate concerns, air quality and poverty alleviation.

Li Yong noted that Northern countries have transferred best practices to Southern countries, which are now doing the same for other Southern countries.

Fu Jun, academic dean of the Institute of South-South Cooperation and Development at Peking University, addressed forum participants and made the following points:

President Xi Jinping announced the establishment of the Institute for South-South Cooperation and Development before the 2015 UN General Assembly. The institute is already active and offering two courses on international leadership. It also serves as a platform to exchange ideas and experience with leaders from developing countries.

General debate and comments

China and G20 members are looking into the promotion of green finance. Countries involved in South-South cooperation should consider creating such a group.

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South-South cooperation has been on the agenda for at least 30 years, but it failed to take off because the time wasn't right. The only available economic models were from the North. Now Northern economic models are being challenged.

Southern countries need different kinds of technologies, institutions and economics, both at the macro and micro levels. These have to be developed by Southern countries

and societies and shared among them. It is critical that South-South cooperation doesn't become a new form of colonialism, where countries like China and India use this to take over cheap resources.

The main area of cooperation will be technical innovation and science. Bill Gates claims that China from 2011 to 2013 used as much cement as the U.S. did in the entire 20th century. Consumption patterns adopted in the South represent dramatic changes. At Marrakech a new type of cement was introduced, which uses 40 percent less energy, reduces carbon emissions by 40 percent and uses mining waste rather than virgin raw materials for its production. We have to start thinking radically about science and innovation.

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At the Forum on China-Africa Cooperation in Johannesburg in 2015, China pledged a \$60 billion investment in Africa, but the environmental component was not key to this commitment. The issue is whether China can help Africa develop with a more renewable energy mix than its own. It's an opportunity that China shouldn't miss.

Achim Steiner opened the second half of the forum focusing on greening OBOR, inviting CCICED Member and Secretary General of the Netherlands Ministry of Infrastructure and the Environment, **Lidewijde Ongerling** to address participants.

By 2050 international trade will grow by 350 percent, and international transport volumes will quadruple. Without intervention, carbon emissions will also quadruple. That's why the development of infrastructure has to include taking environmental action. China's building of 20,000 km of high-speed rail is commendable.

A good example from the Netherlands is the use of the strategic environmental assessment. It's been used for 25 years, and it's a powerful instrument that leads to thinking of sustainability from the start of a project. It requires research and discussion up front, but in the end, stakeholders are more satisfied with the results.

Officials from China and the Netherlands this week discussed applying this instrument to the Belt and Road initiative, and the consensus was that this is a promising tool. Another example is the Dutch government's decision that, in return for public investment in the Rotterdam Harbor, stakeholders would adopt measures to green its modal split, to good results. There is also a need for smart transport; smart cars and the sharing economy will contribute to that.

Haw Kuang Lim, CCICED member, board director of Bank Negara, which is Malaysia's central bank, and former executive chairman of Shell Companies in China made the following comments:

From discussions with people in various Asian countries, it's clear that they're interested in business investment and cooperation with China. Nobody mentions green criteria.

During the implementation of OBOR, China should impose very clear and effective incentives and penalties.

He also noted that the CCICED should involve more people from the business community in its deliberations.

Tang Min, CCICED member, State Council member and vice-chairman of the YouChange China Social Entrepreneur Foundation raised the following issues:

Green finance can be both a carrot and a stick. Initially, few people understood OBOR, but now more and more governments, businesses and educational institutions are exploring the opportunities it presents, particularly for building infrastructure. Private funding for OBOR projects is starting to appear.

For projects supported by public funds, ADB or AIIB will very likely follow environmental regulations. But private sector investments will prioritize profits and could ignore environmental protection.

After 30 years of unfettered growth and lax environmental oversight, many Chinese entrepreneurs show very little environmental discipline. Some countries along the OBOR route also have weak governance. China should develop regulations for Chinese enterprises investing abroad, and it should consider ways to help other countries with project implementation.

CCICED should consider taking on a green finance study, similar to what was done for the G20, and ask other countries to support the effort.

Erna Witoelar, Council member, founder of the Indonesian Biodiversity Foundation, and the former Indonesian Minister of Human Settlements and Regional Development made the following suggestions:

South-South cooperation needs to approach sustainable development holistically, paying attention to environmental, economic and social aspects, and making sure no one is left behind. The earlier mistake of developing first and cleaning up later should be avoided

OBOR should be integrated into the SDGs, but good governance is critical to implementing projects, which means participatory development, transparency and accountability.

The CCICED should consider organizing a parallel meeting to the AGM to discuss the impact of Chinese investments in Southeast Asia. China's investors are welcomed, but concerns have been raised by the influx of Chinese workers, competing for the low-paying jobs paid with Chinese money. Chinese investment in Indonesia almost tripled in the first nine months of this year compared to last year, reaching \$1.5 billion. But it is generating criticism.

The Chinese business sector should be involved in these discussions because OBOR can be a positive force in Indonesia. There are people on remote islands who now have electricity for the first time because of the lower cost of solar energy provided by Chinese firms.

Achim Steiner opened the floor to discussion and suggested four possible angles in the context of OBOR and South-South cooperation: China as a consumer and how its demand shapes the marketplace; China as an investor, whether it's through public finance, loan finance or private sector investment; China as a producer of green products; and China as a development or policy partner. He noted that at present, China is building a green narrative, but it rarely translates into practice. When government negotiators meet, they stick to their positions.

General debate and comments

Green finance is a carrot, not a stick. A stick would be a policy to discourage gray finance. Authorities should prevent gray and black finance from becoming a part of OBOR and South-South cooperation.

We shouldn't worry about banks like AIIB or the Export-Import Bank of China but instead worry about big commercial banks such as ICBC and China Construction Bank, which have a large presence in Southern countries.

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It's very hard to do business in developing countries. Businesses have been scared by the amount of green regulations; they are not prepared to comply. Sometimes in order to survive, businesses become dirty. When Chinese companies go abroad, they deal with the developing countries' governments, which can be corrupt.

For successful investment abroad, dialogue and transparency are essential. It's also important to transfer ownership of the project immediately to the host country, ensuring people become invested in it. It's also important to talk to people in a way they can understand and to avoid jargon.

It's important to adapt to developing countries' work culture, and recognize that women are valuable allies.

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An example of successful South-South-North cooperation is a project for cultivating bamboo in Ethiopia, Kenya and Uganda with advice from China on how to care for the plantation and advice from the Netherlands on marketing and product design.

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China should make sure that the infrastructure investments generated along the OBOR route are inclusive in nature. That will require more investment.

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In the next phase, CCICED should engage with key OBOR investors and provide clear guidance for project implementation. The strategic environmental impact assessment mentioned earlier is a great example of simple, clear guidance, applicable to OBOR.

Environmental legislation should not be undermined by OBOR projects or operations. WWF has identified more than 500 protected or sensitive sites that have been downgraded in protection status or whose boundaries were changed as a consequence of development investment in those areas.

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Aspirational discussions about OBOR have not yet translated into the reality of business decision-making where projects involve not only infrastructure and technology investments but also important land-use decisions.

4. Plenary Session

CCICED Executive Vice Chairperson and China's Minister of Environmental Protection **Chen Jining** chaired the plenary session. He introduced CCICED Chairperson and Vice Premier of the State Council **Zhang Gaoli**; CCICED Vice Chairperson, China's Special Envoy on Climate Change, and Deputy Director of the Committee on Population, Resources and Environment of CPPCC **Xie Zhenhua**; CCICED Vice Chair and Deputy Director of the Committee of Population **Zhou Shengxian**; CCICED Vice Chairperson and Oxford Martin School Director **Achim Steiner**; CCICED Secretary General and Vice Minister of the Ministry of Environmental Protection **Zhao Yingmin**; Deputy Secretary General of the State Council **Ding Xuedong**; CCICED Member and Head of the National Bureau of Statistics **Ning Jizhe**; and UNEP Executive Director **Erik Solheim**. The chair

welcomed all participants, including task force members and representatives from embassies and international organizations.

a. Report on CCICED 2016 Work Progress and 2017 Work Plan

CCICED Secretary General and Vice Minister of the Ministry of Environmental Protection **Zhao Yingmin** presented the CCICED 2016 Work Progress and 2017 Work Plan. He made the following remarks:

CCICED tasks have been completed and targets achieved. The Council's policy recommendations and initiatives on green finance have been integrated into policy. For instance, the CCICED 2015 Task Force on Green Finance's findings are now part of government-issued guidelines. CCICED also organized a roundtable with more than 100 local officials to outline green finance practices and present models for regional green transformation.

CCICED along with the China Securities Regulatory Commission (CSRC) and the China Banking Regulatory Commission (CBRC) launched green finance demonstration projects to promote an environmental information disclosure for listed companies and green ratings for banks. Using the findings of the Task Force on Institutional Innovation and National Governance Capacity, CCICED (in cooperation with the State Commission Office for Public Sector Reform (SCOPSR) and UNDP) organized a seminar on environmental governance and capacity.

Secondly, this year's policy research teams conducted research in the following areas: green transformation outlook for 2020 and 2050; South-South cooperation for ecological civilization and the implementation of the Belt and Road Initiative for green development; China's role in greening global value chains; and the rule of law and ecological civilization. Researchers also completed a case study on pollution control policies in developed countries. More than 20 government agencies, research institutes and universities were involved in this research, providing the foundation for the draft policy recommendations.

Thirdly, CCICED was involved in international cooperation and exchanges. In 2016, the Council held a roundtable in Brussels with the E.U. and its member states on Environmental Governance for Green Transformation, focusing on industrial restructuring along the Yangtze River economic belt. The Council also organized a Sino-German seminar on watershed management in Beijing. In cooperation with WEF, CCICED hosted a high-level forum on the sharing economy.

Fourthly, CCICED has started preparations for Phase VI. The Chinese government in September approved Phase VI of the CCICED. Seventeen national governments,

international organizations and NGOs have expressed their desire to cooperate and fund Phase VI.

Our 2017 work plan includes the selection of Phase VI Council members, with the first AGM scheduled for Nov. 8 – 10, 2017. The AGM theme will be Innovation for Ecological Civilization. Policy research will continue on the topics of green transition outlook, South-South Cooperation and greening the Belt and Road Initiative. The Council will look into ways to integrate ecological civilization with global governance in order to achieve the SDG 2030 Agenda.

The Council will continue to support demonstration projects on green finance, environmental risk management and sustainable consumption. The 2017 work plan also includes a roundtable focusing on New Growth Impetus for Green Transition; a high-level conference on Ecological Civilization, China and the World; and an overseas event on Innovation for Green Development. CCICED will work on increasing the sources of funds for Phase VI.

b. Speech by Achim Steiner, CCICED Vice Chairperson and Director of the Oxford Martin School

China is well equipped to play a considerably larger global role in green development. China's message in Marrakech about staying the course on climate change and the Paris Agreement was key. The new Chinese implementation plan for meeting 2030 SDGs is a step in the right direction. These goals, among others, demonstrate China's leadership in the quest for a green and inclusive global future. Launching a national carbon market represents significant progress, and more global green innovations will likely be fostered in coming years.

However there are still gaps between fundamental needs and actual commitments. CCICED makes the following suggestions and recommendations for the pivotal year 2030:

First, ecological civilization should become a mainstay of Chinese domestic and international policy. This would improve China's environmental image in the eyes of the world and its own citizens. Second, China's leadership in setting and meeting rigorous environmental goals will help China turn green into gold. Third, expanded trade and investment will be key to success in green development. Creating green global value chains as a basis for commerce is essential.

The international interest and financial commitments for CCICED Phase VI provide strong signals about China's perceived role in the world. CCICED international members and experts wish Vice Premier Zhang Gaoli and other Chinese leaders success in achieving China's green transformation and are confident that it will happen.

There has been a visible shift in China's willingness to not only lead reforms and innovations at a faster pace domestically, but also in its clear commitment to its relationship with the rest of the world. The Hangzhou G20 summit and the green finance discussions illustrated the immense influence China can bring to the international community and to its own national development choices.

c. Keynote Speech by CCICED Chairperson and Vice Premier of the State Council Zhang Gaoli

Ecological civilization is a central part of socialism with Chinese characteristics. It involves not only the wellbeing of our people and the future of our nation but it also affects the whole world and how it will counter climate change.

On behalf of President Xi Jinping and the Chinese government, I offer my congratulations on the convening of this AGM and welcome everyone here today.

President Xi has often said that green mountains and clean waters are in fact gold and silver. So by protecting the environment we will protect our productivity, and by improving the environment we will increase our growth. Premier Li Keqiang has said ecological civilization involves the whole economy and society, and impacts a complete set of public interests.

Over the next few years, China will implement a system of plans, structures and policies, and the concept of ecological civilization will become more widely known.

Each region has its specific characteristics. This month I attended a meeting on building ecological civilization in Fuzhou, Fujian province. Representatives from cities shared their experiences, and I was inspired by what I saw.

In August 2005, President Xi visited a small village on the outskirts of Huzhou, a city on the southern banks of Lake Tai where, at the time, there were many mines and quarries. President Xi made his well-known statement that green mountains and clean waters are a source of prosperity. He said there are difficult choices to be made, and you can't have everything at the same time. In the 10 years since, Huzhou has planted forests and developed eco-tourism. Today, Huzhou's GDP per capita has reached \$11,300, and the city has become the first model of building ecological civilization.

Sixteen provinces, 1,000 cities and towns and 102 administrative regions in China are running trial projects for building ecological civilization. Fujian, Jiangxi and Guizhou provinces have established national eco-civilization trial zones.

Forests and trees now cover more than 60 percent of the territories of Fujian, Jiangxi and Guangxi provinces. We are reclaiming previously cultivated areas at an unprecedented pace. It's difficult and expensive to restore natural areas. We did that in the mountains surrounding Shenzhen when I was party secretary. We must continue along the path of low carbon and green development because it's sustainable. This path will become broader as we move along it.

We are now pursuing high quality and efficient economic development, which protects the environment. In that way we can build a *xiaokang* society of moderate prosperity and pass on to our grandchildren green mountains, clear rivers and a beautiful environment.

Since the 18th Party Congress, we have set up a system of assigning different functions to regions and designating national spaces. The Yangtze River economic belt is where we will preserve the most important water channel in our country. In Hainan province we are trying to protect the coastline by setting up construction-free zones.

We are encouraging new industries and limiting overcapacity. This year, steel production dropped by 45 million tons, and coal production dropped by 250 million tons. We've reached our targets ahead of time. The price of steel and coal has gone up, and this has led to some backward factories rising from the ashes. This is unacceptable.

The steps we are taking to upgrade traditional manufacturing are quite radical. In the future, we want not only to produce a lot but also to produce a lot of good stuff. The size of our GDP is not everything anymore; we need to think about quality, efficiency, technology, the environment and competitiveness in the world.

Our energy consumption per unit of GDP has dropped, and polluting emissions have decreased as well. Our statistics need to be accurate; we won't allow people to hand in fraudulent numbers. In 2015, PM 2.5 concentration in 74 cities dropped by an average of 23.6 percent compared to 2013, and the number of good air days has increased by 10.7 percent. The protection and restoration of ecological systems has grown to 21.66 percent, compared to 16.6 percent at the beginning of the century. I am involved in the efforts to reduce air, water and soil pollution in the Beijing-Tianjin-Hebei area.

China's environment and ecology are still plagued by many problems, and good leadership has to be clear-sighted about this. We are more determined than ever to deal with the environmental problems and to protect nature. Chinese people are demanding these improvements, and we must also be responsible for the world's environment and ecology.

The 13th FYP provides a window of opportunity for us to act according to the principles of innovation, coordination, greenness, openness and inclusiveness and achieve a better environment by 2020.

We'll continue to link the supply-side structural reforms with a green, circular, low-carbon development. We'll promote technical innovation, speed up the greening of traditional manufacturing and develop new low-carbon industries. We'll optimize the energy structure, promote the circular economy and green consumption trends. We are retrofitting coal-fired power plants and limiting the opening of new coal mines, instead developing nuclear, wind and solar energy. The nuclear capacity currently under construction in China represents 50 percent of the world's capacity, and we believe the energy mix structure will change.

We'll classify arable and developed land, and we'll rehabilitate rivers, lakes, forests and mountains. We'll enable natural wetlands, eco-diversity and water ecology protection, as well as combat desertification. We are improving the supervision of local governments' protection of eco-systems. We have completed supervision tours in nine provinces, and in two years we will have covered the whole country. People will be held accountable for damaging the environment, and we will strengthen law enforcement in this regard.

We will shut down the highly inefficient and polluting facilities, and we'll strengthen the accountability system in order to restructure our industries. But this is a painful process. We need both GDP performance and better ecological performance. We might have to sacrifice GDP growth to improve the environmental quality, and we're determined to do that.

Institutional reform is central to establishing ecological civilization. China has promulgated a general plan for ecological civilization institutional reform. By 2020 we will establish a natural resources asset property system and other systems that will form the architecture of eco-civilization.

We must learn from developed countries how to strengthen our circular economy and improve recycling.

We will have zero tolerance toward polluters. We will establish a green finance system to encourage investment into the environmental protection market. We will draw redlines around forests, grasslands, water bodies, wetlands, coastlines and mountains, particularly those located near cities.

We will expand international cooperation on environmental protection and promote a global ecological civilization movement. The G20 summit in Hangzhou was successful, and during the summit, President Xi submitted to UN Secretary-General Ban Ki-moon China's approval document of the Paris Agreement. Premier Li Keqiang attended the 71st session of the UN General Assembly, chairing the 2030 agenda breakout session, when he announced China's national plan for the implementation of the 2030 agenda.

We will promote a green Belt and Road initiative and offer environmental and climate assistance to developing countries through South-South cooperation. China will honor its climate commitments.

CCICED has a wealth of talent and experience and is influential in the world. We appreciate your work through Phase V, and we will seriously consider this year's recommendations. We have officially approved the establishment of Phase VI, and we will continue to support the CCICED's work.

d. Speech by Chen Jining, CCICED Executive Vice Chairperson and China's Minister of Environmental Protection

CCICED Vice Chairperson and Director of the Oxford Martin School **Achim Steiner** chaired the second half of the plenary session and introduced CCICED Executive Vice Chairperson and China's Minister of Environmental Protection **Chen Jining**. He made the following remarks:

Ecological civilization, which is supported by President Xi Jinping, represents a new philosophy and strategy of governance by the Chinese Communist Party. It is an urgent aspect of China's national development strategy.

Since the 18th Party Congress, China has stepped up its efforts to build an ecological civilization and has curbed environmental deterioration. PM 2.5 concentration has decreased in 338 cities above prefecture level for two consecutive years. From January to November, PM 2.5 concentration decreased by 8.3 percent. The number of days with clear skies increased by 2.6 percent. The industrial structure and energy mix are being optimized, and the emission intensity for major pollutants per unit of GDP is decreasing.

We are realizing that environmental protection is not a burden but rather a catalyst for quality growth and innovation.

People traditionally thought that environmental supervision increases costs and undermines productivity. But U.S. Professor Michael Porter posed the hypothesis that appropriate environmental supervision can motivate companies to innovate and therefore become more productive. This can offset environmental costs, improve profitability and product quality and make companies more competitive on the global market. Empirical evidence from the U.S. validates this hypothesis.

China is currently reforming its supply structure, and we are hoping this can lead to improved productivity, efficiency and better consumption patterns.

Secondly, effective institutions that can internalize the concept of sustainability are key to ecological civilization. We are training local governments to demand that companies

comply with environmental regulations. In the past year, we have been inspecting provincial party committees and governments in nine provinces on their environmental work. Inspections are underway in another seven provinces and will extend to the whole country next year. In the sessions we hold with provincial officials, we emphasize that every department must assume responsibility for environmental protection, including the planning, industrial and economic departments.

Thirdly, we need to make use of innovative management technologies, such as big data, cloud computing and artificial intelligence. MEP is currently using big data to develop online platforms for national environmental enforcement, monitoring, environmental impact assessment management, and weather emergency and response. They are all highly visual, can track historical data and will help us provide evidence-based standards and regulations.

Fourth, we are in the midst of a new technological revolution. We must make use of it for green innovation. We must deepen our understanding of environmental issues, and for that we need to do more basic environmental research.

Finally, we need to create an atmosphere where everyone can participate in the development of ecological civilization. Active public participation requires more disclosure of environmental information. In the age of social media, it's important for us to engage with the scientific community, the media and the public and share useful scientific information. This way everyone can become a supervisor, a practitioner and a beneficiary of ecological civilization.

e. Briefing on the Open Forum Discussions

CCICED Vice Chairperson **Xie Zhenhua** briefed the plenary on the open forum discussion on the sharing economy and green development:

Apps make it easier for people to find and share information on unused resources, thus leading to decreased emissions. The sharing economy is part of a new revolution, but we need to look into whether it is actually contributing to a green economy.

The sharing economy can help establish social credibility, which could help reduce social governance costs and build a harmonious society. But the sharing economy is also challenging for regulators, who require a quality assurance system. The sharing economy can bring people closer, but it could also lead to the creation of ideological clusters. Companies and the government should work together to develop the sharing economy in a positive way.

CCICED Member **Li Yong** briefed the plenary on the open forum discussion on South-South Cooperation and the greening of the Belt and Road initiative:

China plays various roles in South-South cooperation: consumer, producer, investor and policy partner. China should set clear environmental guidelines for its public and private investments in the OBOR initiative and the South-South cooperation.

The availability of funds is not a big concern, but it's important to ensure that development be green and sustainable. Green finance could support this.

South-South cooperation and the OBOR initiative are important tools for international cooperation in the context of the 2030 Agenda for Sustainable Development, which can also support greater environmental sustainability.

CCICED International Chief Advisor **Art Hanson** briefed the plenary on the open forum discussion on global governance on environment and climate change:

Participants agreed that we must protect and foster multilateral agreements, particularly the Paris Agreement and the 2030 SDGs. We need a mid-century strategy both for oceans and for climate change. Thirdly, we need government structures that will enable business and civil society to become involved in environmental protection. Countries should be moving toward a Paris coalition to accelerate action. Another point is that global governance is interlocked with local action and governance.

The century of the oceans is upon us, and we need to make sure that the blue economy will also be a green economy. There's an opportunity to supply monitoring and digital tools, which would make it easier to understand the oceans and regulate their use. It's time for China to take on a greater role in dealing with the oceans.

f. Policy Research Reports

CCICED Member **John Forgach**, who was also an international member of the task force on South-South Cooperation for Ecological Civilization, presented the team's report. He made the following remarks:

The task force interviewed recipients of foreign aid in 23 countries in Southeast Asia, Africa and Latin America with the help of the Global Green Growth Institute (GGGI) and the World Wide Fund for Nature (WWF). Fourteen countries provided extensive answers. The research included a conference held in Nairobi, organized with the help of UNEP.

China is seen as the new big player by Southern countries. South-South cooperation is complementary to North-South cooperation. In the context of the present anti-globalization climate, China has become a serious alternative for some countries.

Chinese entrepreneurs are generally well regarded, and they are increasingly respecting local environmental laws.

The Chinese government should improve inter-ministerial coordination when dealing with Southern countries. It should also improve the communication with these partners and promote the concept of ecological civilization. Finally, it should create a strong and transparent evaluation system for its projects in other countries.

The Chinese co-chair of the task force, which is also President of the Chinese Academy of International Trade and Economic Cooperation (CAITEC) of the Ministry of Commerce, **Gu Xueming**, presented the team's recommendations:

The first recommendation is to establish a high-level coordination mechanism for South-South cooperation. This mechanism should be led by a coordinating committee and should promote clear environmental protection rules. The second recommendation is to encourage businesses in China's peripheral provinces to go abroad. Thirdly, the government should invest more in environmental research and should disseminate the information domestically and abroad. The government should also encourage more green investment. Fourth, the Chinese government should improve its management of South-South cooperation projects, including better planning and more transparent evaluations.

The task force has also laid a roadmap for South-South cooperation from 2017 to 2050. From 2017 to 2020, the government should use the 13th FYP and other national plans to prepare a five-year plan for South-South cooperation. This plan should include measures for protecting the environment and for making sure funds are properly used. Between 2021 and 2030, South-South cooperation should be integrated into China's national strategy. And the period from 2031 to 2050 should be defined by development and transformation.

Jim Leape, international co-chair of the special policy study on China's role in greening global value chains, CCICED Member, and now with the Woods Institute for the Environment at Stanford University, presented the team's findings. He emphasized the following points:

Global value chains account for half of all global trade. The challenge of greening global value chains goes to the heart of greening the global economy. China is the largest consumer of many of these traded commodities. It consumes 23 percent of agricultural production and 40 percent of base metals.

But there are clear opportunities to move these global markets toward sustainability by identifying the entry points: While there are 1.5 billion producers in these markets and 7 billion consumers, 500 companies control 70 percent of the trade. If these companies are

engaged, they can move the markets; already some of them are committing to sustainability. There are also more voluntary international standards for sustainable production and increased transparency in tracing the value chains.

It's in China's interest to move on these issue for a variety of reasons, including: security of resources; competitiveness on global markets, which are increasingly demanding sustainable products; maintaining China's ascent in global leadership and recognizing that greening global value chains is a cornerstone of building an ecological civilization. In fact, China's Belt and Road Initiative is about building the global value chains of the future. Finally, it's in China's interest to green global value chains because they're linked to the country's commitments to the Paris Agreement and the SDGs.

The group's recommendations are related to integrating this issue into China's participation in global governance; reforming China's own policies and programs; and mandating Chinese companies to become more conscious about how they source the commodities they buy.

Four recommendations for the long term include: First, putting global value chains on China's agenda for engaging with the rest of the world; second, sending a clear signal to companies on how they should move forward on this issue; third, putting greening global value chains at the heart of the Belt and Road initiative; fourth, assisting other countries with smaller capacities to support the greening of value chains.

The first step on this journey would include that the Chinese government mandate its state-owned companies to make commitments to sustainability in their sourcing of commodities and in their investment in commodity production; starting a pilot project looking into possible action on commodities associated with deforestation, such as soy, palm oil and timber products; and using South-South cooperation as leverage to green global value chains.

Wang Yi, co-chair of the research team as well as member of the Standing Committee of the 12th National People's Congress (NPC) of China and Vice President of the Institutes of Science and Development of the Chinese Academy of Sciences, emphasized the following final point:

China is both a beneficiary and a victim of global value chains because 20 percent of products made in China using polluting processes are consumed by Western countries. But China can become the leader of a green value chain, which would take into consideration the situations of individual countries.

**g. Speech by Erik Solheim, United Nations Environment Programme (UNEP)
Executive Director**

This has been a great year for environmental policies in China, including the ratification of the Paris Agreement, the Kigali Amendment to phase down HFCs, the Minamata Protocol on Mercury and the Nagoya Protocol on Biodiversity. China also put green finance on the G20 Hangzhou summit agenda, stepped up banning ivory and rhino horn on the Chinese market, continued its war on pollution and removed the giant pandas from the endangered species list.

The first lesson to be drawn from these successes is that while China can still learn from the world, the rest of the world also needs to learn from China's experiences, especially on establishing green finance, combating pollution and greening value chains. The OBOR initiative and South-South cooperation will help in this transfer of knowledge.

The second lesson is that the world needs China's leadership. We're going through a phase where multilateralism is under pressure and some countries believe they should solve their problems alone. China can help restore global solidarity so that we can solve global problems related to trade, security, environment and development. Divided we are weak; together under Chinese leadership we are very strong.

CCICED Executive Vice Chairperson **Chen Jining** thanked participants and closed the plenary session as Council members were presented with commemorative plaques for their contributions to the CCICED during Phase V.

5. Plenary Session

a. Briefing on the Draft Policy Recommendations

With CCICED Vice Chairperson **Xie Zhenhua** chairing, Chinese Chief Advisor **Shen Guofang** briefed members on the draft policy recommendations:

The policy recommendations focus on ecological civilization and green development. There are three conclusions: First, during the 13th FYP period, China will implement various measures and policies for ecological civilization. Second, the coming years will be key for the implementation of the Paris Agreement and the 2030 SDGs. Third, the OBOR initiative and South-South cooperation hold great potential for green development.

Three major actions are needed to achieve these goals:

First, ecological civilization should become a mainstay of Chinese policy. Secondly, in order to ensure real progress on climate change and green development, especially within the framework of South-South cooperation, multilateral and bilateral conventions

should be well implemented. Third, the G20 platform should be used to advance these efforts.

There are four policy recommendations. The first one is the most important, and the other three are based on the first.

1. The overarching policy recommendation is to accelerate the progress of ecological civilization and green transformation.

This can be achieved by advancing institutional reform by establishing a green development governance system; by encouraging the green economy growth by leveling the playing field for clean technologies and other green innovations; and by using green accounting. Secondly, China should accelerate green transformation innovation in major social and economic sectors such as agriculture, key industries and the service sector. The government should emphasize cross-sectorial integrated planning and management, in particular for regional development.

2. Strengthen the rule of law for ecological civilization.

China has made great advances in strengthening the rule of law for environmental protection, but a better coordination between the judicial, executive and legislative branches is needed.

There are three aspects of this policy recommendation: First, the government needs to speed up the adoption of environmental laws and regulations and develop a full environmental code. Second, it needs to fill important legal gaps in the environmental law. Third, it needs to include the concept, principle and norm of ecological civilization within specific laws.

In addition, China needs to strengthen its judicial safeguards. It needs to reform the environmental judicial system for cases across administrative areas. It needs to promote public interest litigation for environmental damage. It must also strengthen environmental crime provisions in environmental laws. And it must strengthen compliance and law enforcement and broaden the scope of public participation.

3. Proactively promote South-South cooperation for ecological civilization.

Developing and developed countries should stick to the principle of common but differentiated responsibilities. China should make further efforts to strengthen the cooperation between developing countries and make good use of the cooperation funds that have already been set up. Transparency in green development will be key for South-South cooperation.

There are four important factors to this policy recommendation:

First, China should establish criteria for selecting its priorities in South-South cooperation. The criteria should be consistent with the SDGs and adaptable to countries at different stages of development and with different needs. China should favor projects that provide systematic solutions that balance livelihoods and ecology. The projects should involve innovative technology and development modes, and promote environmentally friendly and low-carbon infrastructures.

Secondly, China should establish a comprehensive green action guide for its foreign aid. The guide should provide information on the types of projects that are particularly supportive of green development. It should assess the potential environmental impacts of China's foreign aid and promote mitigation and adaptation in developing countries.

Third, China needs to create the right enabling conditions for South-South cooperation. In order to do this, it should develop medium-to-long-term strategies for ecological civilization within the South-South cooperation framework. It should increase the proportion of aid allocated for projects related to ecological civilization, and should actively involve developing countries in the planning processes.

China should also establish a specialized organization for international development cooperation, as well as domestic consultation mechanisms for South-South cooperation.

4. Accelerate the integration into global green value chains.

The concepts of green development and ecological civilization should be integrated into the global value chains, which cover the use of raw materials, the consumption of goods, and the recycling of used goods. The OBOR initiative and South-South cooperation can play an important role in the integration of these values into global value chains. They can also help to boost companies' competitiveness on global markets and promote green development around the world.

Five different factors should be considered: First, China should play a leadership role in promoting the sustainable development of green value chains. Secondly, the government should send a clear policy signal to encourage Chinese companies to participate in global green value chains. Thirdly, the global green chain initiative should be a priority of the OBOR initiative. Fourth, China should offer more investment and financing assistance to support global green value chains. Finally, green value chains should be emphasized within the implementation of the 13th FYP.

Shen Guofang closed his remarks by announcing his retirement. Dr. Shen has been associated with the CCICED since 1999 and served as chief adviser since 2004. He was warmly applauded by Council members and participants.

b. Discussion and Adoption of the Final AGM Policy Recommendations

As chair for the session, **Xie Zhenhua** opened the floor to discussion on the draft policy recommendations. Participants made the following remarks:

The oceans should be better represented in the policy recommendations. Where we talk about climate change on a global scale, we should mention the rise of ocean levels and the acidification of ocean waters. When there is mention of greening agriculture, there should be emphasis also on greening the blue economy. We need to talk about the sustainable development of the coastal areas, oceans, and how we rationally use marine spaces.

Many countries involved in South-South cooperation are coastal countries. When we talk about desertification in these countries, we need to emphasize the health of the oceans.

In discussions about implementing the 2030 SDGs and greening South-South cooperation, there is a need to also discuss North-South cooperation. This is key to realizing the SDGs.

Where we talk about building a green accounting system, we need to look into technical problems associated with green accounting systems before we apply these to the national level. And when we propose setting up a foreign aid green directive for China, we should add that we also need a directive for business investment abroad.

We should shift the focus of compliance and enforcement to prevention rather than to punishment by ensuring compliance by institutions at the front end of the process. The environmental impact assessment needs to be done openly, transparently and thoroughly.

Within China, there needs to be more independence in the way decisions are made in cross-boundary pollution cases because of local protectionism. Even at the local level there is a need for the judiciary to be independent, and for the public to trust that a decision will be fair and based only on the law and the facts. This helps promote a level playing field and gives industry confidence and certainty that the law will be applied.

Existing pollution permits need to be revised and strengthened with a view to supporting green transformation and the adoption of modern technology. Industry should be given time to adjust, but there should also be enforceable requirements that they do adjust.

The recommendations on South-South cooperation are better than in the summary. Some of the recommendations in the full paper, related to for example monitoring and evaluation, should be reintroduced into the summary recommendations.

A large part of China's impact overseas and the opportunity to build a global ecological civilization lies in its commercial engagement with other countries through companies and banks. So on page two, we should add an item about influencing how Chinese companies and banks operate overseas.

There could be a stronger focus on regional cooperation across borders, with China focusing on ecological systems and corridors cutting across the countries where China is leading investment.

Using available data on protected areas or key biodiversity areas not yet protected, or water-stressed, sensitive or vulnerable areas is also essential for development programs at the early stage of planning.

We should mention the need to address the unsustainable wildlife trade, which is driving to extinction iconic species in continents like Africa, but also iconic species for China itself, like tigers and snow leopards.

There needs to be unified legislation on air pollution and solid waste pollution, as well as a comprehensive environmental reporting system because the environmental protection law only addresses key enterprises. There is also a need to step up punishment for those who submit fraudulent information.

We should strengthen the recommendations on the power of incentives to drive transformation in the agricultural and industrial sectors; these are powerful long-term tools.

The sharing economy can play a critical role in maximizing the amount of clean energy that can be brought into the electricity system.

We should recommend that the Chinese government look for ways to strengthen the analytical connection between the SDGs and South-South cooperation. This could support greater potential for investments and projects that advance the long term-achievement of the SDGs.

We should strengthen the language to not only select ecologically beneficial infrastructure projects but also to avoid investment into "brown" infrastructure, which has high carbon emissions and destroys the environment.

We should find ways to focus on the implementation of environmental initiatives. We are good at making recommendations, but we should become better at emphasizing their implementation.

We should add references to forests in the document and emphasize the greening of the agricultural sector.

The South-South cooperation recommendations on criteria and procedures are very good but far too passive. China also needs to help developing countries green the global value chain.

Green value chains are only now being developed. China needs to become involved in setting these up, but the definition is unclear. Currently, the global economy's value chains are not well structured, so there's an opportunity to shape these value chains to take into account fair compensation of labor, which reduces the gap between rich and poor. Green labeling is also very important in the setting up of green value chains.

China's FYP for social and economic development should be changed into a FYP for social, economic and environmental development.

Nearly all significant infrastructure investment taking place in Africa now comes from China. There's room for greening the infrastructure investment in Africa and in the Belt and Road initiative. UNEP is willing to assist in that process.

South-South and North-South cooperation could be aligned through a set of common guidelines. Currently, South-South cooperation is substantially undervalued in economic terms.

United Nations (UN) could be more aligned to Chinese priorities and more helpful in sharing Chinese experience with the world. China is very much underrepresented among the UN staff, which does not reflect China's population, economy or role in the world. UNEP Executive Director **Erik Solheim** stated he would try to promote greater Chinese representation.

China can learn from the experiences of other nations, such as Brazil, India and Argentina, where courts are playing critical roles in greening their nations. These countries have separate green courts or separate parts of their supreme courts among the main drivers of the environmental agenda.

China should find ways to communicate environmental issues and science in ways that are more engaging and attractive to the public, possibly learning from Europe and the U.S. The rest of the world should also adopt Chinese environmental concepts, such as ecological civilization.

Xie Zhenhua thanked all the speakers and contributors. He proposed the adoption in principle of the policy recommendations to be submitted to the Chinese government.

6. Closing Session

CCICED Secretary General and China's Vice Minister of Environmental Protection **Zhao Yingmin** chaired the closing session. He reminded participants that the policy recommendations to the Chinese government have been adopted in principle and thanked all Council members and experts for their contributions.

Zhao Yingmin introduced CCICED Vice Chairperson and Director of the Oxford Martin School **Achim Steiner**. He gave the following speech:

During CCICED Phase V, we have witnessed enormous transformation and profound developments in China and globally. We are looking at a world that is both more challenged and more hopeful about the possibilities that lie ahead. Vice Premier Zhang Gaoli's speech yesterday showed vision, leadership and expressed unequivocally where China's future directions lie.

We are entering a different phase also in the global context — one that is marked by political uncertainty, economic volatility and stagnation in many parts of the world, and by a degree of ecological vulnerability unprecedented in modern human history.

It's a moment in which we've all learned that the environmental narrative must transform: It must move beyond the singular narrative of the environmental risks and threats toward the opportunities, innovation and possibilities that drive societies' development. The environmental agenda of the 21st century is different from that of the 20th century. It's also a moment in which we're all desperately looking for leadership. China has shown its readiness and willingness to lead not only through domestic action but also through international cooperation.

Political developments in recent months also point to the end of an era in which economic determinism ruled over everything else that our societies pursued. The singular growth-driven paradigm of the 20th century has left many of our citizens increasingly dissatisfied and disenfranchised. Whether that is in terms of PM 2.5 and pollution in China, impoverishment of communities in other parts of the world, or developing nations feeling left behind, it's clear that equity and sustainability are emerging alongside the economic paradigm of progress of the last century.

It's not a coincidence that at this moment, China emerges with the notion of ecological civilization. It is in some ways surprising that, out of the very nation that is associated with the greatest economic leap forward in the half century, should emerge such a

fundamentally different view of development and of society. We are privileged as members of the Council to be able to take part in this conversation.

Zhao Yingmin invited Executive Director of the United Nations Environment Programme (UNEP) **Erik Solheim** to address members. These were his main points:

The world sees advances in environmental protection and renewable energy technologies every day. For example, Indonesia this year expanded protection of carbon-rich peatlands; India opened the largest solar plant in the world; Tesla has been able to provide 100 percent solar power to an island in American Samoa; and a wind farm program in Fujian province has received funding of almost \$1 billion. What is needed in the world is political will.

China has changed its leadership philosophy and is now showing its capabilities on the international scene. Chinese leadership is essential to greening the world. It would be wise in our development as individuals, organizations, businesses and nations to follow a quote from a Song dynasty leader, which is displayed at the National Museum of China. The quote says, “You should be the first to show concern for others and the last to enjoy yourself.”

Zhao Yingmin introduced CCICED Vice Chair and Deputy Director of the Committee of Population **Zhou Shengxian**, who made the following remarks:

Vice Premier Zhang Gaoli’s speech was important for describing China’s concepts and actions for ecological civilization. Our discussions, reports and open forums have been constructive and insightful. The Chinese government will take CCICED’s input and recommendations seriously. Research reports and policy recommendations will also be distributed to relevant government departments and incorporated into policymaking.

China needs to strike a balance between economic development and environmental protection. Green transformation affects the way we produce, work, live, think, as well as our values. It’s important to establish effective systems and mechanisms to support these reforms. The rule of law is also essential to improving our environmental quality. We’ll establish a comprehensive ecological civilization legal system and will promote law enforcement. We’ll also look into promoting the sharing economy and green consumption.

We will use the CCICED as a platform to share our best practices and experience with the rest of the world. We will use green practices in building South-South cooperation, the OBOR initiative and in greening global value chains.

CCICED Phase VI will continue to focus on major issues related to the environment and development, and will put forward recommendations that will help China and improve global environmental governance.

Zhao Yingmin thanked all members and experts and closed the CCICED 2016 AGM.

III. Recommendations of the CCICED to the Government of China

CCICED has submitted its recommendations on environment and development to the State Council of China each year over the past two and a half decades. For recent years, there have been very significant changes in the range and complexity of topics discussed, and we continue to see remarkable efforts and achievement on the part of China to address the challenges and opportunities. Through this prolonged time of learning and hard effort, China now has established a productive strategy and top-level design for Ecological Civilization construction and green development.

Yet China still faces monumental challenges—serious environment and ecological issues and urgency of Ecological Civilization institutional reform, and from threats now inadequately addressed at the global level, including environmental protection, climate change, biodiversity decline, and sustainable use of the oceans. We believe these issues and threats currently constrain the full achievement of *Xiaokang* objectives, and may hold back economic and social progress in the decade ahead. Addressing these concerns requires further institutional and legal reform, technological and management innovation far beyond what has so far been accomplished. People's full participation is needed, especially in development decisions and for new patterns of sustainable consumption to emerge. Fortunately China also has advantages gained through its existing efforts.

CCICED believes that China is well positioned to become a global green leader in future efforts: (1) by example through its own present and future improvements; (2) by its role in expanded international cooperation and governance; and (3) by expanded support to other developing nations. These three leadership roles are the focus of CCICED's 2016 Recommendations to the State Council.

This year's policy recommendations focus on the theme of *Ecological Civilization: China and the World*. We have come to a general conclusion and propose three major actions. Regarding the general conclusion: First, if it is to achieve the environmental elements for a moderately well off society by 2020, China requires a stronger effort domestically to promote the Ecological Civilization construction, and achieve overall environmental quality improvement. Second, the coming several years are the time to demonstrate just how much can be achieved by accelerating the pace of China's efforts to address international goals particularly for the Paris Agreement on Climate Change and the Chinese Implementation Plan for the UN 2030 Sustainable Development Goals (SDG2030). Third, the great potential value to green sustainable development of China's already announced international development initiatives. These initiatives include the *Belt and Road Initiative* (BRI), AIIB and the New Development Bank (NDB), and South-South Cooperation funds, plus China's enhanced ODA and FDI.

The three major actions that we believe should advance strategy of Ecological Civilization construction, and therefore green transitions, are the following. First, it is timely to introduce Ecological Civilization as a mainstay of Chinese policy not only for domestic innovation and transformative change, but also in Chinese international relations. Second, China should use the SDG2030 opportunity to advance global sustainable development via South-South Cooperation; promote substantive progress in addressing climate change at the global and regional levels; enhance environmental safeguards in bilateral and multilateral agreements; and foster green action by businesses both domestically and internationally. Third, continue to promote green innovation within strategic international platforms such as the G20, following the successful example of the green financing initiative in this year's G20 Hangzhou meeting. These three actions will work to China's economic, social, and political advantages.

Our major recommendations are based on the findings and recommendations of 2016 task forces and special policy studies¹.

Policy Recommendation 1: Accelerate the progress of Ecological Civilization and Green Transformation

The guidance of the 5-in-1 principles of "Innovation, Coordination, Green, Opening and Sharing" is comprehensive. However, China's development is at a critical turning point, and must foster a more rapid green transformation of the economy towards an Ecological Civilization. Needed are several green transitions that can be undertaken during the 13th FYP. It is recommended that the future five year plans be titled as the "National Economic, Social and Environmental Development Plan".

1.1. Accelerate institutional reform on Ecological Civilization.

(1) Establish a national green development governance system. Incorporate the concept, principles and norms of Ecological Civilization into the Constitution during the 13th FYP, and ensure the establishment of a legal system and administrative system under the umbrella of Ecological Civilization. It is necessary to further strengthen the performance evaluation systems for government officials at both the local and national level. Greater use of green competition mechanisms is needed among the provinces and cities. Conflicts of overlapping administrative systems for resource and environmental management should be rationalized, and the Ecological Civilization concept should be embedded in urbanization, rural land management and water resource utilization. The recently announced green financial system guidelines need to be followed up with

¹ Task Forces: *China Green Transition Outlook 2020-2050 (interim Report)*; *Rule of Law and Ecological Civilization*; *Ecological Civilization and South-South Cooperation*. Special Policy Study: *China's Role in Global Green Value Chains*.

various mechanisms to restrict financing channels for high-pollution and high-energy consumption enterprises, and to assure strict compliance to green standards.

(2) Encourage green economy growth by leveling the playing field for clean technology and other green innovations. The slow pace of green taxation reform should be addressed along with subsidy reform that is consistent with needs for green development. Remove inappropriate subsidies for fossil energy sources. Use measures such as green credit, differentiated water/electricity prices, mandatory environmental liability insurance and special award funds to support enterprises with sound environmental performance. Consider how enterprises can play a greater role in China's Implementation Plan for SDG2030.

(3) Establish green economy accounting system. Reform current national economy accounting system by introducing ecological environment valuation and environmental cost accounting that embraces the "green is gold" approach; and completely change the situation of excessive pursuit of GDP growth. Green accounting is needed for eco-compensation arrangements, assessment of government officials, and various other tasks covered in the 13th FYP.

1.2. Continue to accelerate green transformation in major social and economic sectors such as agriculture, industry and service sectors.

(1) Foster green transformation of agriculture. Modern agriculture is characterized by large-scale monoculture and high input farming, with reliance on high water use, and very high use of chemicals such as fertilizers and pesticides. Ecological agriculture should be vigorously developed through integrated crop production and livestock breeding for improved product quality and environment outcomes. Innovations for green aquaculture and mariculture are essential for sustainable development in these sectors. Green agricultural processing approaches should be adopted for agriculture and livestock products to reduce impacts on climate change. Promote innovative development of agriculture and agroforestry in the context of the SDG2030.

(2) Promote green transformation within key industrial sectors. It is necessary to use innovative technology and management measures to improve the efficiency of traditional industrial sectors; and to improve the efficiency of current industries in China and the efficiency of resource allocation among the whole society through policies of regulation, taxation, tariff and export restrictions. It is necessary to promote 'greenization' of traditional manufacturing sectors, and to cultivate corporate social responsibility practices, with emphasis on monitoring and transparent information disclosure. Integrated planning will also be a means for synergic control of climate change and air pollution. Examples include measures for SLCP (Short Lived Climate Pollutant) control, and environmental health initiatives such as those to control indoor air pollution.

(3) Support green development in service industries. Newly emerging service industries and new business models such as sharing economy need to be addressed in the context of their contribution to sustainable development and green transitions, and policy support is needed. Tourism deserves much greater attention to its impacts on the environment, on nature reserves and the national park system, and on socio-economy so this sector should be considered as a key area of Ecological Civilization in China.

(4) Broaden efforts for cross-jurisdiction integrated planning and management and for regional green development. Recent initiatives such as Jing-Jin-Ji coordinated development and the Yangtze Economic Belt development plans provide considerable attention to pollution control and other environmental matters. These integrated development approaches reflect the future of green urbanization and coordinated regional planning and management in China, and more such initiatives should be established. The initiatives should take into account siting of rural and suburban low carbon and green industries, green development cities, and other activities supportive of quality of life and environmental improvements.

Policy Recommendation 2: Strengthen Rule of Law for Ecological Civilization

In recent years, China has achieved significant progress in applying Rule of Law for environment and development. However, there are still needs to intensify efforts in legislation, justice, law compliance, plus enabling mechanisms that can support sustainable development, Ecological Civilization and implementation of China's SDG2030 Implementation Plan.

2.1. Speed up the introduction of relevant environmental laws and regulations to produce a full Environmental Code for China.

(1) Develop a national Environmental Code and promote greening of the total law system. It is recommended that development of the Environmental Code should be initiated by focusing on ecological environmental protection, with feasibility study by phases to be carried out, and the formulation of an *Environmental Code* included as part of legislation planning. Clearly define in the Constitution and relevant laws the legal connotation and denotation of "environment", and list environmental rights as an important element of the right of citizenship.

(2) Fill important legal gaps in environmental law. In order to give full play to the role of Rule of Law in advancing sustainable development, it is recommended that a *Legal Guarantee Plan for China's Sustainable Development* be developed. Regularly review legal needs for effective implementation of the Paris Climate Change Agreement and other laws. Initiate the development of a *Special Law on Atmospheric Environmental Protection in the Beijing-Tianjin-Hebei Region (Jing-Jin-Ji)*, *Hazardous Chemicals Safety and Environmental Management Law*, and revise the existing *Environmental Impact Assessment Law* to further

clarify the binding authority of EIA on government policies and plans. Strengthen the pollution permit system, enforce the implementation of more strict mandatory emission standards, and promote technical innovation.

(3) *Include the concept, principle and norm of Ecological Civilization within specific elements for the Rule of Law.* These elements include the Constitution, civil and commercial laws, administrative laws, economic laws, social laws, criminal laws, litigation and non-litigation procedural laws.

2.2. Strengthen judicial safeguards system.

(1) *Guarantee the access to justice in environmental matters for citizens, enterprises, communities and social organizations.* Support citizens, enterprises, communities and social organizations to participate in environmental legal matters including prevention of environmental harm cases, as well as ensuring their legal rights and justice on environmental damage. Ensure public confidence that judge's decisions will be made on the legal and factual merits of the case.

(2) *Reform cross-jurisdiction environmental judicial system.* Due to the mobility of environmental elements, environmental cases often occur across jurisdictions. Current jurisdictional authority based on administrative regions is not conducive to case investigation, trial and dispute resolution. It is suggested that circuit courts be established on a watershed basis to handle important cross-administrative region environmental cases. Also, encourage the relevant courts to draw upon environmental expertise to handle specialized needs of ecological environmental damage cases.

(3) *Promote public interest litigation for environmental damage.* While the capacity for citizen and social groups to access the courts on environmental matters has improved in recent years, there are still needs for improvement on information access, intervenor status and funding, and on the ability to initiate cases. It is recommended to improve the public interest litigation system for environmental matters and to reduce the restrictions on plaintiffs. Encourage NGOs to actively engage in environmental public interest litigation, and strengthen the public participation and transparency of environmental and resource trials. Promote the establishment of funding system for environmental public interest litigations. Facilitate the connection of environmental litigation and non-litigation procedures, and support the People's Procuratorate to file environmental public interest litigations.

(4) *Improve environmental crime provisions in criminal laws.* It is recommended to add new crimes of water environment pollution and ocean pollution, and add provisions for potential damage offenses to give full play to the deterring role of the criminal law.

2.3. Strengthen compliance and law enforcement.

(1) Broaden environmental information access channels. Establish inventories of corporate environmental information disclosure. Improve penalty and incentive mechanisms for parties involved in the disclosure of corporate environmental information, and promote self-compliance on the part of enterprises.

(2) Enhance law enforcement. Educate, guide and support enterprises on law obedience, supported by monitoring systems to timely detect violation activities. Improve law enforcement capacity. Strengthen monitoring equipment standardization and the use of technologies such as automated monitoring, satellite remote sensing, and drones for monitoring of violations. Improve funding mechanisms for environmental supervision and law enforcement by fully integrating funds within the various line items of budgets, all at the same level of government.

Policy Recommendation 3: Proactively promote South-South Cooperation for Ecological Civilization

Achieving global sustainable development goals requires both developed and developing countries to make joint efforts with due considerations of common but differentiated responsibilities, and actively promote South-South cooperation while continuing South-North cooperation. China should continue to adhere to the principles of "Balance, Equality, Protection, Inclusiveness, Transparency, and Compliance", implement major initiatives in the context of green development such as "The Belt and Road" initiative, proactively promote South-South Cooperation for Ecological Civilization with Asia, Africa and small island countries, respond to green developing demand from other developing countries, jointly promote and assist the implementation of the SDG2030, and enhance China's contribution to global environmental governance.

3.1 Establish criteria to guide China's selection of priorities in South-South Cooperation for Ecological Civilization.

The following five criteria are proposed: (1) be consistent with the 2030 Sustainable Development Goals; (2) be adaptable to countries at different stages of development and with varying needs; (3) provide systematic solutions that balance livelihood and ecology; (4) operate with innovative technology and development models; and (5) promote environmentally friendly and low-carbon infrastructure. Use of these criteria consistently will send strong signals to partner countries about Ecological Civilization.

3.2. Establish a coordination mechanism for South-South Cooperation for Ecological Civilization.

(1) Establish a ministerial level China International Development Cooperation Agency to integrate international development aid and South-South Cooperation. This agency would be responsible for mainstreaming the Ecological Civilization concept into all decisions and plans, including objective identification and policy making at the macro-level and institutional arrangements, process management, monitoring and evaluation at the micro-level.

(2) Develop a comprehensive "Green Action Guide for China's Foreign Aid". This Guide should provide information on types of projects that are particularly supportive of green development, assess the potential environmental impacts of China's foreign aid projects and provide support and guidance to mitigate environmental impacts. In addition, the Guide should recognize the positive effects of foreign aid on meeting SDG2030 goals and addressing climate change.

3.3. Create the enabling conditions for South-South Cooperation for Ecological Civilization.

(1) Develop medium-term and longer-term strategies for Ecological Civilization components of South-South Cooperation. These strategies should give due consideration of demands of global environment and development, as well as demands from developing countries, including priority fields and programs that can take full advantage of Chinese technical, scientific and managerial expertise. Attention should be given to climate change, biodiversity, desertification, landscape restoration and afforestation and various ocean fields, and especially to topics of interest to developing countries adjacent to China.

(2) Develop a broad multi-stakeholder participation system for South-South Cooperation. Motivate local governments, NGOs and enterprises, and explore multilateral cooperation with other donor countries, development banks, international NGOs, and multinational companies.

(3) Strengthen institutional and human capacity building. Improve environmental awareness of people working for South-South Cooperation. Enhance fundamental research efforts to provide a better theoretical and data basis for policy development and decision making. Select and train personnel in international perspectives, environmental awareness, and the expertise to take on South-South cooperation work.

(4) Enhance outreach. Systematically elaborate the relationship between Ecological Civilization and sustainable development goals to promote internationalization of the Ecological Civilization concept. Strengthen information and data collection, pre- and post-project analysis and disclosure for South-South Cooperation, and establish an official information release system and a "Government – Civil Society" dialogue platform.

3.4 Increase Financial Support.

Combine various financial sources to achieve an integrated funding efforts, including government aid, development agencies, commercial banks and private sector. Fully use the leverage of government funds to encourage more input from commercial banks. Fully utilize the financing capacity of multilateral financial platforms such as AIIB, NDB, GEF and the Green Climate Fund.

3.5 Improve Process Management

(1) *Understand demands of partner countries and stakeholders to improve project implementation in South-South Cooperation.* Proactively understand needs and demands of partner countries, and expand project partner relationships to include more environmental protection projects in the project pool of South-South Cooperation.

(2) *Consolidate existing foreign aid approaches and further strengthen technical assistance and knowledge sharing.* Broadly extend China's successful experience in green agriculture, industry and other sectors, and promote application of new technologies in South-South Cooperation for Ecological Civilization.

(3) *Pay close attention to the whole process assessment for large projects in infrastructure, energy, mining and agricultural sectors.* In assessments, consider ecological environment to be of the same level of importance as economic and social impacts, and establish an interactive mechanism for projects at all stages: proposal, assessments and monitoring, and evaluation.

Policy Recommendation 4: Proactively Lead and Integrate China into Global Green Value Chains

Global value chains add value to raw material, commodities and services by linking production, logistics, consumption and circular economy processes through international trade cooperation. Global green value chains means mainstreaming sustainable development concepts into the rules and practices of global value chains. China should strengthen its role in greening global value chains—with green BRI and Ecological Civilization South-South Cooperation serving as major agents of change. This is crucial to safeguard China's economic security, enhance international production capacity cooperation and strengthen international competitiveness, and promote global sustainable development.

4.1. Seek policy synergies and actively participate in global green value chains.

China should promote an integrated policy package that addresses investment, trade, standards, certification, and capacity building. Consider creating "ECO-20" in

cooperation with Germany and other countries to promote global green value chains in the upcoming 2017 G20 Summit; and promote the greening of global value chain through multilateral forums, for example WTO negotiations on environmental goods and services. Furthermore, China should align its green standards with international standards.

4.2. Provide clear policy guidance to encourage Chinese companies to participate in global green value chains.

While a large and growing number of multinational companies have begun to act on the sustainability of global value chains, Chinese companies have generally held back, awaiting guidance and support from the government. The government should use fiscal and financial incentive measures to encourage enterprise to procure and produce green products and join voluntary international efforts, such as the growing effort to reduce deforestation and to reduce pressure on ocean fisheries, and establish green value chain standards and systems for traceability.

4.3. Advocate a global green chain initiative, and consider it as a priority for the Belt and Road Initiative.

Establish green partnerships throughout the BRI region to share best practices. Advocate the establishment of global green value chains, and help BRI countries to improve their participation capacity. Establish partnership with full participation from government, enterprise and NGOs.

4.4. Provide greater investment and financing assistance towards global green value chains.

Use bilateral aid and the newly-created multilateral banks to assist trade and investment partner countries to better manage their water, forest and fishery resources, improve resource management capacity, and agricultural productivity.

4.5. Promote the establishment of green value chains in 13th FYP implementation.

Specific measures include: (1) Establish traceability systems for main international trade commodities and raw materials to ensure the green and sustainability nature of China's import/export commodities, and further promote the establishment of an international trade system that can ensure legality and sustainability. (2) Launch a pilot program to establish best practices for greening the global value chains for soy, palm oil, forest products and fisheries. (3) Establish a "Green Global Value Chain South-South Cooperation Platform" under the "South-South Cooperation Fund on Climate Change" to promote trade of green commodities and materials and to improve green value chain management capacity of participating countries.