

## CCICED 2021 Highlights Tuesday, 7 September 2021

With an ambitious agenda, the 2021 Annual General Meeting of the China Council for International Cooperation on Environment and Development (CCICED) opened in Beijing. Policy experts from around the world addressed the meeting's theme: "For Nature and Humanity: Building a Community of Life Together."

### Open Forums

**Low Carbon Transition of China's Cities and Green Technology Innovation in Communities for Carbon Neutrality:** The opening session was chaired by WANG Kai, China Academy of Urban Planning and Design, who welcomed the 'blockbuster' report on Major Green Technology Innovation and Implementation Mechanisms (Phase II) published under the CCICED Special Policy Studies (SPS) initiative.

LIU Shijin, CCICED Chinese Chief Advisor, emphasized that green transition of China's cities must be supported by green technology innovation, achieve higher productivity with lower carbon emissions, and accommodate the needs of Chinese communities without dampening economic growth.

The session on green urbanization was chaired by Rebecca Ivey, World Economic Forum (WEF). She stressed that cities are driving greening of the economy and identified China's rapid urbanization as an opportunity for green growth.

LI Xiaojiang, Chinese SPS Team Lead, emphasized that a green infrastructure alone will not guarantee carbon neutrality, explaining that consumption patterns, awareness raising, and behavioral change are crucial.

Antonia Gawel, WEF, explained how integrated planning and design as well as digitalization are needed to achieve carbon neutral energy, mobility, water, food, buildings, and land use, and said collaboration among stakeholders, sectors and nations contributes to an enabling environment for the green transition.

ZHANG Yongsheng, CCICED Special Advisor, marveled that developing countries constitute over half of the 130 countries that have pledged to achieve net zero emissions, which he interpreted as a new era of green development with opportunities for developing countries to leap-frog the outdated brown technologies of the developed world.

LI Junfeng, CCICED Special Advisor, noted the influence of domestic energy efficiency and carbon market policies on the reduction of the carbon intensity of China's businesses and highlighted China's relatively low energy usage per capita.

Dong Zhenning, Amap/Alibaba, highlighted his mobility company's contribution to reducing carbon emissions, noting that their integrated digital transport planning and payment platform rewards trips by public transport and bicycle.

Zhan Kun, China Business Council for Sustainable Development, agreed that community members need to take ownership of the green transition and said businesses have a responsibility to develop competitive green solutions.

Zhu Changlong, Shell China, highlighted the opportunities of carbon capture, utilization and storage (CCUS) for hard-to-abate sectors, noting that large industrial parks with a

centralized CCUS process could make the technology cost-effective in the future.

The session on digitalization and sustainability was chaired by LI Xiaojiang. Dirk Messner, CCICED Member and German Environment Agency, highlighted the importance of digitalization, artificial intelligence and machine learning for sustainability. He pointed to the huge potential of digital technologies to organize the decarbonization of production and consumption patterns, but warned that risks of inequality and loss of privacy and freedom needed to be addressed.

WANG Kai compared China's urbanization development with other major economies and noted differences in energy consumption and mobility patterns.

Tareq Emtairah, United Nations Industrial Development Organization, identified the need for further innovation in policy and planning, technology, finance and social areas to achieve future emissions reduction targets. He illustrated how digital solutions can help manage the energy value chain from the generation, transmission, distribution to the sustainable end-use of energy.

YE Qing, Shenzhen Institute of Building Science, outlined opportunities for digitalization in the building sector, with integrated energy generation, storage and usage solutions for net zero emissions buildings.

LI Weidong, China Huaneng Group Clean Energy Research Institute, outlined his company's efforts to reduce emissions by integrating solar and wind power, electric vehicle batteries, and CCUS.

Raymond Yau, SWIRE Properties, enumerated his company's commitments to sustainable building products, energy efficiency, carbon abatement, biodiversity assessments, green spaces, and reporting frameworks.

Yao Qiang, China Electricity Council and former Vice President of Power Construction Corporation of China, illustrated the Corporation's focus on renewable energies and digitalization, providing integrated digital solutions for hydro power stations including demand forecasting, electricity generation, water treatment and flood prevention.

**Carbon Neutrality: The Role of the Ocean:** This session, co-organized by the Environmental Defense Fund (EDF), Friends of Ocean Action, and WEF, was chaired by Jan-Gunnar Winther, CCICED member and Specialist Director at Norwegian Polar Institute. The session focused on the oceans' role in achieving carbon neutrality and the future of sustainable development of the ocean under climate change.

Kristin Halvorsen highlighted the need for integrated, eco-based management of oceans. She commended the CCICED for the scientific foundation of its work and its Ocean Special Policy Study.

Chair and keynote speaker JIAO Nianzhi, China Academy of Sciences, highlighted the potential of carbon pumps and other ocean carbon sequestration technologies and underscored the importance of international collaboration to support further research.

ZHANG Zhifeng, Marine Ecology and Environment Department, welcomed efforts by relevant ministries in China to work in a coordinated manner on adaptation and mitigation

synergies in oceans and noted positive results in improving ocean oxygen levels in mangroves and wetlands.

Carol Robinson, University of East Anglia, spoke about knowledge gaps in ocean carbon removal technologies and stressed that carbon removal processes should be quantifiable, socially acceptable and ecologically safe.

LIU Yanjun, Shandong University, discussed the “huge” potential for marine renewable energy from wind, tidal and ocean thermal sources.

Aoife O’Leary, EDF, drew attention to the shipping sector’s huge mitigation potential and its capacity to unlock renewable energy capacity.

YE Siyuan, Key Laboratory of Coastal Wetland Biogeosciences, China Geological Survey (CGS), outlined work on carbon sink resources in riverside areas North of the Yangtze river, noting rapid restoration rates and the role of temperature and salinity and of biomass carbon decomposition.

Focusing on integrated ocean and climate action, Patrick Yeung, WWF, emphasized the need: to raise ambition on sustained mitigation and adaptation; make nature part of the solution though integrated coastal zone management and ecosystem-based approaches; take a people-centered approach; and joining up the climate and ocean finance agendas.

SU Jilan, China Academy of Sciences, moderated the discussion of sustainable development of the ocean under climate change. WANG Juying, National Marine Environmental Monitoring Center, stressed that healthy oceans are crucial for ensuring prosperous societies and achieving carbon neutrality and recommended: improving marine environment monitoring systems; promoting integrated management of land and sea-based pollution; strengthening joint actions between marine conservation and climate adaptation; and demonstrating Chinese leadership through sharing of good practices related to marine governance.

Liu Hui, Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences, outlined a recent study led by CCICED examining the aggregate carbon footprint and impact of climate change on global fisheries. Liu underlined that all stages of the fishery production process contribute to GHG emissions.

Gwen Ruta, EDF, underscored that climate change is expected to lead to shifts in species distribution and affect the productivity of oceans, and proposed five pathways to build climate resilience: enhancing data collection and adaptive management capacities; acting on climate projections; enhancing intergovernmental coordination to prevent unmanaged marine competition; establishing marine protected areas; and ensuring fairness and equity.

Jan-Gunnar Winther outlined priorities for continued CCICED Seemap activities, including: research on marine carbon sequestration; safeguarding marine food resources; ecosystem based management; and marine tourism.

### Plenary

In the opening plenary session, Huang Runqiu, CCICED Chinese Executive Vice Chairperson and Minister of Ecology and Environment, summarized China’s environmental aspirations towards an ecological civilization. Huang underscored the importance of holistic and integrated approaches in achieving sustainable development, noting the societal co-benefits derived from, *inter alia*, scaling down climate emissions; reducing point source pollution; enhancing biodiversity protection; restoring critical ecological systems; and strengthening environmental governance.

Achim Steiner, United Nations Development Programme, called for an inclusive and greener recovery from the COVID-19 pandemic, noting this involves ensuring that the global community comes together to: recalibrate their economies; put nature and climate at the center of national and sectoral decision making; and redirect financial flows towards low emission, nature positive investments, while also fostering a just transition.

ZHOU Shengxian, Former Minister of Environmental Protection, emphasized that it will be essential to carefully review and accurately understand China’s environmental protection and development undertakings, as well as to promote new ideas and measures.

Inger Andersen, United Nations Environment Programme, underscored that the triple planetary crisis of climate change, biodiversity loss, and pollution threaten our very existence. She outlined opportunities for China’s leadership, including by accelerating action on the Paris Agreement and SDGs through green COVID-19 recovery spending, phasing out coal and moving to renewable energy, making the Belt and Road initiative “biodiversity positive,” embedding sustainability in international policies, strengthening biodiversity protection in China’s coastal waters and high seas, and working through the WTO to reach an agreement on ending fishing subsidies.

Kristen Halvorsen emphasized that large economies need to step up ambitions ahead of the UNFCCC COP26, said investment choices can lock in consequences for years to come, and underscored that climate change will pose significant challenges both for the planet and the world’s financial markets.

Erik Solheim, World Resources Institute, highlighted policy initiatives from around the world demonstrating that the international community is united in its ambition to reverse climate change. He called for increased urgency in these efforts.

Børge Brende, WEF, suggested three priorities for the CCICED: focusing on green economic transformation, including through the creation of sustainable value chains for soft commodities; multi-stakeholder collaboration with industry in advancing climate actions; and the prioritization of innovative, frontier technologies in addressing emissions.

Scott Vaughan, CCICED International Chief Advisor, presented key themes from the 2021 CCICED issues paper: implementation, equity, and international cooperation. He noted that the paper: seeks to identify concrete steps towards implementation of an ambitious integrated policy agenda on climate and environment; sets out proposals for advancing a just transition; and outlines joint actions to realize the SDGs as part of wider global efforts to control pollution and decarbonize economies.

LIU Shijin, CCICED Chinese Chief Advisor, outlined the recommendations to be given to the Chinese government, including, *inter alia*, promoting economic change and pollution control, promoting urban regeneration that will create a new paradigm for urbanization and rural revitalization, and coordinating domestic targets with the international governance process.

Andrew Metcalfe, Australia’s Department of Agriculture, Water and the Environment, noted that China and Australia face common issues, outlined Australia’s work on the circular economy, and commended CCICED’s experts for supporting efforts to combat marine litter and support ocean governance.

Manish Bapna, Natural Resources Defense Council, encouraged China to: prepare an enhanced national determined contribution for the upcoming climate change conference; end its overseas coal investments; and ensure that value chains for soft commodities, such as timber, are legal and sustainable.

Stephan Contius, CCICED Special Advisor, proposed broadening the work of the Council to accelerate China’s carbon neutrality goals and support concrete actions for decarbonization.

Aniruddha Dasgupta, World Resources Forum, underlined that China is pivotal in directing global trade towards greener supply chains.

Rodolfo Lacy, Organisation for Economic Cooperation and Development, called for ensuring COVID-19 recovery packages allocate sufficient funding towards climate adaptation measures, especially for vulnerable communities.

Huang Runqiu thanked participants and emphasized that the active participation will ensure future policy recommendations in China are more effective in protecting the environment.