

Maintaining the Strategic Dual-Carbon Determination and Exploring the Innovative Path of Multi-Objective Synergy: Accelerating Green and Low-Carbon High-Quality Development

—China Council for International Cooperation on Environment and Development 2023 Annual General Meeting Policy Recommendations for the Chinese Government



As the world emerges from the COVID-19 pandemic, the global economy is still grappling with volatility, inflation, and geopolitics, with prolonged sluggishness in economic growth, employment, trade, and investment. The World Bank's June 2023 *Global Economic Prospects* report warns of precarious economic prospects ahead. Many emerging and developing countries are expected to bear greater pressure. The world economy faces the dilemma of how to restart and sustain healthy growth.

At the same time, the damage caused by extreme weather events linked to climate change is escalating with each passing day. The world has just experienced the hottest summer in 174 years, with alternating droughts and floods, and frequent wildfires, all of which have posed urgent and severe challenges to public security and health. In today's turbulent world, all countries are facing the challenges of accelerating economic recovery, ensuring energy and food security, and addressing climate change in a coordinated manner. The process of modernization in human society is once again standing at a juncture in history.

The development of green, low-carbon industries, exemplified by renewable energies, has significantly accelerated, emerging as a new driving force to maintain economic growth and push for transformation. The International Renewable Energy Agency reports that USD 500 billion was invested in photovoltaics, onshore wind power generation, and offshore wind turbines in 2022, and sales of electric vehicles (EVs) are experiencing ongoing expansion. A recent trade-climate scenario report by the World Economic Forum envisions that as much as 15% of global merchandise trade could be made up of net-zero goods by 2030. The development of green and low-carbon industries has become an indispensable driver of new

growth, prompting countries to reflect on their development philosophies and encourage innovation in development strategies, organizational models, institutions, and mechanisms.

After 5 years, China reconvened the National Conference on Ecological and Environmental Protection, where Chinese President Xi Jinping delivered an important speech. CCICED Council Members expressed a strong appreciation of China’s confidence and determination to firmly advance ecological civilization and modernize the harmonious coexistence between humanity and nature. They believe that this commitment has injected greater assurance and positive momentum to the sustainable development of not only China but also the global community.

Based on the research outcomes of CCICED's joint studies and the discussions at the 2023 Annual General Meeting, Council Members recommend that **China should maintain its strategic determination, take green and low-carbon development as the endogenous driving force, and promote high-quality development with multi-objective synergy in a coordinated manner.** Promote synergies between carbon and pollution reduction and take an integrated approach to addressing energy, supply chains and food security to ensure a gradual, systematic, and controlled progression toward the carbon peaking goal. Accelerate the digital and green upgrading and transformation of traditional industries through digital technological innovation and support the high-quality development of industries and cities through digitization. Establish a green financial system to support low-carbon transformation, coordinate carbon and pollution reduction with a focus on the transportation sector and accelerate the development of a new type of power system. Improve the legal safeguards for addressing climate change. Integrate the sustainable blue economy as a national strategic goal and incorporate climate adaptation capacity assessment into river basin planning to establish a green, low-carbon, and resilient spatial pattern covering mountains and oceans. Promote open cooperation to improve the policy environment for overseas green cooperation projects and to integrate green and sustainable criteria into global supply chains. Build a green Belt and Road Initiative (BRI) and share opportunities for low-carbon transformation. Give play to the role of the COP 15 presidency and work together to implement the Kunming–Montreal Global Biodiversity Framework (GBF) to achieve harmonious coexistence between humanity and nature. Align low-carbon green development with poverty alleviation, job growth, youth engagement, and gender equity.

Specific recommendations are as follows:

A.Maintain strategic determination and firmly implement the “dual-carbon” goal

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| <p>1.Establish a roadmap for institutional transformation and promote the transition from “dual control of energy consumption” to “dual control of carbon emissions.” During the mid-to-late stages of the 14th Five-Year Plan, initiate pilot projects for dual control of carbon emissions in select provinces, cities, and key industries. In the early stage of the 15th Five-Year Plan, test the dual control of carbon emissions at the national level, with carbon intensity as a binding indicator and total carbon emissions as a predictive indicator. Beyond 2030, refine the comprehensive carbon reduction system with a primary focus on total carbon emissions control.</p> <p>2.Establish a regulatory framework for climate change response or carbon neutrality promotion and identify opportunities to embed carbon control measures into sector-specific laws in fields such as transportation, construction, and urban development. Formulate action plans at the provincial and municipal levels to implement the “1+N” policy system. This involves improving the management mechanism in terms of target setting, data and analytical technologies,</p> | <p>public participation, continuous monitoring and assessment, and dynamic adjustments. Climate change litigation should be incorporated within the scope of environmental public interest litigation and a preventive environmental public interest litigation system should be established. Set up judicial guidelines for climate change cases, with special attention given to short-lived climate pollutants like methane.</p> <p>3.Promote the whole-chain application of green innovation and expedite the development of a new low-carbon power system. Match the reliable supply of renewable energy with energy delivery, pricing mechanisms, and a more competitive market environment. Implement nationwide economic dispatch of the power system to reduce renewable energy curtailment. Develop new and more ambitious goals for clean energy and energy storage. Encourage energy storage and demand-side management resources via market mechanisms for a balanced power system. Accelerate the technology research and development and policy preparations for Vehicle-to-Grid (V2G) systems for EVs to</p> |
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supply power back to the grid. Make full use of spatial planning to optimize renewable energy systems that do not undermine biodiversity conservation areas, high-value agricultural areas, and residential areas.

4. Incorporate energy security, asset-stranding risks, and social equity into the top-level design of the energy system transformation toward decarbonization. Ensure that dispatchable power generation and energy storage meet peak demand, especially during extreme weather periods when wind and solar power generation sharply declines to prevent widespread power outages. Accelerate the flexibility retrofit of certain coal-fired power plants to enhance their adaptability to variable wind and solar power with high penetration levels and meet peak demand requirements. Some coal-fired power plants can be converted to biomass power generation, with consideration of integrating carbon capture and storage technology to reduce asset

stranding and social risks. Expand the scale of renewable energy production in urban areas, support skills training, and increase green employment opportunities from the energy transition.

5. Continue to improve the policy package for promoting new energy heavy-duty trucks (HDTs), including setting industry standards, implementing fiscal incentives like vehicle purchase tax exemptions and non-fiscal incentives like priority road rights, and specifying procurement requirements for new energy vehicles in commercial fleets. Accelerate the development of new energy HDT infrastructure, such as charging and battery-swapping stations. Set long-term sales share targets for new energy HDTs, aiming for 45% by 2030, 75% by 2035, and 100% by 2040. Introduce a “dual-credit” policy for new energy HDTs and off-grid energy storage systems for road-charging electricity.

B. Continue to optimize the industrial structure and promote carbon reduction and pollution reduction synergies

6. Continue to adjust and optimize the structure of energy, industry, transportation, land use and more. Accelerate the shift from end-to-source treatment and promote cross-

sectoral synergies in carbon and pollution reduction for enhanced efficiency. Accelerate source emissions reduction, process control, end-of-pipe treatment, and comprehensive

utilization in the industrial sector to facilitate green development across the entire production cycle. Establish an efficient, standardized recycling system for sorting, recycling, and reuse of metals from industrial waste. Increase efforts to optimize and adjust the transportation structure, promoting the conversion of highways to railways and waterways, while paying attention to the development of sustainable fuels and other decarbonization technologies related to aviation and shipping. Enhance the quality of green, low-carbon and climate-resilient development in urban and rural construction and take multiple measures to increase the proportion of green buildings and improve energy efficiency.

7. Strengthen synergies in the fields of pollution prevention and control across air, water, soil, and solid waste. Continue to deepen the nationwide battle to prevent and control pollution. Collectively advance deep air pollution reduction, energy saving, and carbon reduction in key industries. Set up a synergized target and evaluation system for environmental quality, pollution control, and greenhouse gas emissions reduction with a focus on the coordinated control of fine particulate matter and ozone. Advance integrated freshwater management that coordinates the management of water

resources, water environment, water ecology, and resilience. Strengthen the synergistic control of soil pollution management and encourage green and low-carbon soil remediation. Promote concerted action on solid waste pollution prevention and control and strengthen the development of “Zero Waste Cities.” Promote the integration of nature-based solutions (NbS) in conjunction with conventional engineering approaches.

8. Address the challenges related to climate change, biodiversity loss, and food security in an integrated manner through land-use transformation. Optimize agricultural support policies and apply natural capital and ecological accounting to support sustainable farming, fisheries, and forestry. Promote the widespread application of agricultural digitization and smart technologies to facilitate the transition of agricultural production toward green, low-carbon, and regenerative agricultural management to ensure food security and ecological services. Incorporate environmental and health dimensions in the definition of food security. Optimize China’s dietary guidelines to provide scientific guidance for food policy formulation and food security evaluation. Adjust food security policies through fiscal incentives to optimize the supply of nutritious and healthy food.

C.Promote the high-quality development of industries and cities through coordinated digital and green transformations

9.Promote the low-carbon development of existing digital infrastructure, such as data centres, industrial Internet, 5G, etc., and build energy-efficient and climate-friendly digital infrastructures. Conduct annual energy consumption assessments of key national computing and data centres, implement energy-efficiency audits, and establish zero-carbon data centres. Establish a public data centre directory to record key indicators related to data centre operations, including electricity efficiency, renewable energy factor, cooling efficiency ratio, and water usage effectiveness, and to track the carbon emissions associated with the hardware, software, and cloud services of digital facilities. Optimize industrial policies and support the application of renewables in the digital economy, establish a coherent evaluation system for digital and green development, and establish incentive mechanisms for green and low-carbon development.

10.Centred on core indicators like carbon productivity, energy efficiency, water consumption, and material usage/consumption, establish a system of green and

low-carbon production metrics. Strengthen continuous carbon monitoring through digitization to identify priority areas for emission reduction. Develop a carbon asset management system for key manufacturing sectors and gradually promote the disclosure of corporate climate-related information. Utilizing the supply chain as a framework, mobilize upstream and downstream companies to track carbon emissions data and product carbon footprint.

11.Optimize the energy supply structure for enterprise production and expand green power trading and new energy power supplies. Introduce time-of-use electricity pricing signals to encourage industrial energy saving during peak demand. Encourage enterprises to expedite the technological upgrading of pollution and carbon reduction and adopt green and low-carbon technologies. Extend the lifespan of information and communication products through eco-design and recycling, gradually phasing out energy-intensive equipment. Carry out digital low-carbon production pilot programs in industries such as steel and metal.

12.Promote a system for measuring and assessing sustainable urban development through digitization, integrating multiple dimensions, such as spatial planning, industry, housing, transportation, management services, etc., and carry out ongoing assessments of smart and sustainable cities.

13.Enhance the climate adaptation capacity with digital technologies, formulate a special meteorological digitization plan, improve the capacity for multi-source meteorological data collection and transmission, and standardize multi-source data integration and security management. Increase climate modelling, simulation, and climate risk

assessment, enhance the capacity of weather forecasting and disaster monitoring, and develop diversified smart weather service products.

14.Ensure the digital competence training and rights of key groups, establish a digital competence training and evaluation system for governments and civil servants at all levels, and foster transferable digital competence. Develop mechanisms to ensure benefits, the rights to be informed, and participatory rights for groups such as women, the elderly, and individuals with disabilities in the context of digital and green development, promoting inclusive and universal digital development.

D.Enhance the green financial system to support green and low-carbon transformation

15.Shape diverse, green climate investment and financing mechanisms with a comprehensive range of incentives, including taxation, pricing, compensation, and procurement. Accelerate the formulation of categorized directories, rules and standards for transition finance, enhance information disclosure of risks related to climate, environment, and biodiversity loss, and regulate the environmental, social and governance (ESG) investment market. Maintain consistency between

domestic green classification standards and international standards, expand disclosure scope, with a focus on complying with international financial reporting standards related to ESG set by the International Sustainability Standards Board (ISSB), and prepare for the upcoming biodiversity risk disclosure standards.

16.Emphasize the green and low-carbon investment potential of sovereign wealth funds and social security funds as the main components of sovereign assets.

Encourage sovereign asset owners to conduct sustainable investment and financing pilot demonstrations. Consider incorporating climate, ecological and environmental value into performance assessment systems and provide flexible support for applying investment return assessment and risk-sharing tools. Establish sustainable investment principles for sovereign asset owners, including clear strategic objectives and organizational safeguards. Encourage sovereign asset owners to engage in more exchanges and cooperation on sustainable investment

and financing with international partners. 17. Actively participate in multilateral financial cooperation and reform of the international financial systems. Strengthen the alignment with and mutual recognition of international rules and standards related to climate, nature, and sustainable development. Effectively prevent the risks of stranded assets and greenwashing. Raise green standards for overseas investment and financing and improve disclosure, compliance, and accountability mechanisms for financial institutions.

E. Build a sustainable blue economy through land-ocean integration and build resilient river basins

18. Make the sustainable blue economy a key strategic national development goal and an integral part of the national “dual-carbon” goals. Establish a sustainability-oriented ocean economic accounting and statistical framework to calculate the carbon dioxide emissions from the marine industry and the contributions to decarbonization through NbS. Develop corresponding monitoring methods. Strengthen the assessment and prediction of the impact of climate change on the oceans and global fisheries.

19. Create a blue finance framework to enhance financial support for a sustainable

blue economy. Strengthen coordination and funding for international scientific research cooperation on a sustainable blue economy and marine carbon reductions.

20. Advance the comprehensive development of offshore wind energy, tidal energy, solar energy, hydrogen energy, and other renewable energy sources for electricity generation. Reduce carbon emissions from fishing vessels and ports. Initiate decarbonization plans for maritime operations and for aquaculture and fisheries management. Conduct scientific land-sea-space planning, identify optimal layouts

for photovoltaic and wind power, promote multifunctional vertical development and compound utilization, and enhance spatial utilization efficiency.

21. Improve the multi-level Integrated Ocean Management (IOM) system from central to local levels. Develop site selection and implementation standards for marine-related construction projects to protect ocean and coastal ecosystems. Enforce strict control over plastic usage in marine industries and develop comprehensive plans to reduce plastic pollution, including effective extended producer responsibility standards, capacity building, and public education.

22. Assess climate risks in coastal areas (such as the Guangdong-Hong Kong-Macao Greater Bay Area). Update urban building codes for cities along rivers and oceans and increase investments in climate adaptation for assets like infrastructure, housing, and industries, to cope with the risk of sea level rise.

23. Under the framework of the Yangtze River Protection Law and other river basin protection laws, develop vertical action plans and horizontal collaborative agreements. Building upon the existing government collaboration mechanisms, such as the National Yangtze River Basin Coordination Mechanism and Local

Coordination Mechanism, establish a cross-departmental and cross-administration regional collaborative framework involving multiple stakeholders such as governments, enterprises, the public, and other entities.

24. Expedite the formulation of river basin development plans and territorial spatial plans. Establish a comprehensive assessment mechanism for river basins, systematically evaluating the short-term impacts and long-term pressure of climate change. Incorporate climate adaptation capacity assessment into policy-making and decision-making processes for construction projects. Promote NbS and encourage the establishment of water funds to support pilot projects on sustainable hydropower.

25. Identify key steps to further tackle plastic pollution. Develop an action plan to implement the global plastics treaty after its adoption. Consider launching a series of pilot projects designed to reuse, reduce, and recycle plastics.



F.Maintain green and open development, build sustainable supply chains, and contribute to global low-carbon transformation.

26.Establish a new type of cooperative relationship between importing and exporting jurisdictions and companies to optimize the layout of the global industrial and supply chains and collectively ensure the supply of critical minerals, materials, and components in green and low-carbon industries. Establish BRI green innovation partnerships. Create cross-departmental coordination mechanisms for a resilient and sustainable development of the industrial and supply chains.

27.In the multilateral trade cooperation mechanisms in which China participates, conduct constructive dialogues and pilots to forge green consensus and explore the establishment of green, zero-deforestation, and nature-positive trade standards and certification systems. Establish transparent and traceable technological and policy frameworks, incorporate green soft commodity import and export measures into bilateral and multilateral trade agreements, and integrate certification systems across different stages of the value chain. Ensure that all imported soft commodities are legally sourced in their country of origin and explore opportunities for greening

commodity chains through South–South cooperation.

28.Promote the reform of the overseas investment approval system. Implement a comprehensive and coherent BRI project pipeline system. Scale up solar and wind energy BRI projects, strengthen green technology transfer cooperation, and reduce fossil fuel-based power generation.

Integrate green energy investments into the corporate performance assessment system, and appropriately relax performance requirements for overseas green energy investments. Establish a BRI climate financing and green credit system to reduce the financing costs for low-carbon investment projects. Enhance the green energy investment information service system and establish overseas investment risk assessment and early warning mechanisms.

29.Collaborate with BRI participating countries on innovative projects demonstrations. Establish pre-feasibility research and development funds and a database of financing options for green development projects. Actively provide

renewable energy financing portfolios to the projects in the database. Strengthen dialogues and exchanges through multilateral cooperation platforms such as the Belt and Road Initiative International Green Development Coalition (BRIGC). Utilize the third Belt and Road Forum for International Cooperation (BRF III) as an opportunity to introduce an international cooperation

initiative for green and low-carbon development. Coordinate resources from all stakeholders to facilitate demonstrative cooperation in innovative application scenarios, such as “photovoltaics+,” and explore business models for green cooperation projects that suit the characteristics of developing countries.

G.From agreements to synergies in the implementation of the Kunming–Montreal Global Biodiversity Framework

30.Swiftly update the National Biodiversity Strategy and Action Plan (NBSAP) alongside corresponding policy measures and roadmaps in line with the GBF. As the Presidency of COP 15, China should continue to communicate with parties to the convention, observer states, and other stakeholders to promote cutting-edge biodiversity conservation initiatives. Take early action toward the “30×30” and all the other GBF targets to achieve rapid early results. Boost confidence in the implementation of the GBF.

31.Establish a biodiversity expert group to facilitate engagement, coordination, and implementation at the national and international levels. Develop global standards to encourage enterprises to

integrate biodiversity conservation into their development strategies, ensuring their activities yield nature-positive outcomes. Large enterprises should pay attention to the impact of their activities on nature and enhance risk disclosure. Encourage, guide, and assist businesses in participating in biodiversity conservation and implementation through platforms like the China Business and Biodiversity Partnership. For challenging specific goals, encourage the development, promotion, and application of methods and tools, and utilize incentives to help achieve the goals. Develop a youth nature education program and initiate corresponding agricultural, forestry, and fisheries practice pilots that align with the GBF.

32. Call for and welcome contributions from all signatories to support the Kunming Biodiversity Fund, integrating and coordinating different sources of international financing to support biodiversity conservation in developing countries. Reallocate direct transfer payments that are harmful to biodiversity to optimize the impact of existing funds. Support partner countries to establish a hybrid financing model, formulate national-level financing plans, and mobilize and coordinate funds from government agencies, private sectors, philanthropic organizations, multilateral development banks, voluntary carbon markets, and other relevant stakeholders.

33. Ensure the applicability of green finance classification standards to the biodiversity conservation financing goals in the GBF. Gradually implement internationally

aligned and mandatory biodiversity disclosure standards at the market level. Develop systematic and comprehensive methodologies to assess the ecological and environmental impacts of subsidy policies, and launch pilots in agriculture, forestry, and fisheries.

34. Collaborate with economic sectors to advocate integrated and sustainable land-use practices and promote mainstreaming biodiversity conservation. Reassess and optimize land use based on ecosystem service functions, incorporating science-based climate and nature objectives into decision making and operations. Taking agriculture as a starting point, identify pathways and methods to achieve the sustainable use action goals of the GBF. Implement pilot projects on regenerative agriculture and conservation-oriented farming and promptly summarize the experience gained.

