Deepen Reform and Opening up, Strengthen Pragmatic Actions, Advance the Joint Building of a Clean, Beautiful, and Sustainable World

——Policy Recommendations to the Chinese Government at the CCICED Annual General Meeting 2025

The world now stands at a pivotal moment. Uncertainties and instabilities are more pronounced, fractures in multilateral cooperation are deepening, the rules-based trading system is under strain, and debt levels in many countries are rising. Concurrently, the major triple planetary crises such as climate change, biodiversity loss, and pollution are accelerating at an unprecedented pace.

Green and low-carbon development can integrate multiple objectives, including environmental, economic, social, and security dimensions. Investment in clean energy has contributed to China's gross domestic product (GDP) with a steadily increasing year-on-year impact. Among these, investments in energy efficiency expansion, low-carbon electrification, and renewable energy have been particularly significant drivers of GDP growth. Clean energy investments are creating new jobs, serving as a crucial means for stabilizing livelihoods. Furthermore, the deployment of low-cost, distributed, and localized renewable energy provides enhanced guarantees for energy security.

Chinese President Xi Jinping has repeatedly emphasized, at major international forums, China's firm commitment to upholding multilateralism, deepening international cooperation, strengthening pragmatic actions, promoting a people-centred just transition, and accelerating the full green transition unwaveringly and without backtracking, thereby injecting stability and certainty into a turbulent world. Members of the China Council for International Cooperation on Environment and Development (CCICED) have expressed their appreciation for this.

Building on the joint policy research outcomes of Chinese and international experts and discussions at the 2025 Annual General Meeting, CCICED members concluded that the 15th Five-Year Plan (FYP) period represents a critical transitional phase for China. Through scientific planning, China can effectively address climate change while achieving goals such as natural ecosystem conservation, enhanced environmental and climate resilience, and the creation of healthy and safe living and working environments. Over the next 5 years, it is essential to strengthen focus and investment in building cli-

mate-resilience and adaptation systems, follow industrial development rules, and boost green demand. This will maintain the rapid development momentum of green and low-carbon industries, lay a solid foundation for implementing green development strategies, including carbon neutrality, further deepen reform and opening up, strengthen pragmatic actions, and advance the joint building of a clean, beautiful, and sustainable world.

To this end, CCICED members recommend the following: **From a growth perspective,** China should expand green and low-carbon consumption pathways for all sectors, stimulate green and low-carbon investments, overcome the constraints of the linear economy, and accelerate the shift toward new growth drivers. Drawing on supply chain finance principles, financial institutions should develop new green financial products and services, improve sustainable finance standards and information disclosure mechanisms, and support the upgrading and transformation of traditional industries and the engagement of small and medium-sized enterprises (SMEs). **From a livelihood perspective,** a just and inclusive transition plan should be developed for traditional energy regions to facilitate the coordinated development of regional clean energy industries. **From an openness perspective,** China should coordinate international cooperation mechanisms for green development, consider launching a global green development initiative, and constructively contribute to the building of an international green finance system. An inclusive and mutually beneficial global green supply chain cooperation network should be established, encouraging green industries to accelerate overseas joint ventures and localized operations, thereby sharing the benefits from the green transition.

Detailed recommendations are as follows:

I. Expanding Green Demand to Support the Low-Carbon Transition and Accelerate the Shift in Growth Drivers

1. Accelerate the Building of a New Power System to Support the Rapid Growth of Renewable Energy

On the generation side, China should adopt both centralized and distributed models in parallel, with complementary enhance multi-energy coordination, and increase the share of renewable energy in total power generation. During the 15th FYP period, no new coal-fired power capacity will be installed. By 2030, the installed wind and solar capacity will maintain a utilization rate of over 95%, accounting for 33%–38% of total electricity generation. On the grid side, a carbon-neutral power grid should be built by investing in a new system that enables coordinated operation of main grids, distribution networks, and microgrids. A layered, zoned, flexible and highly adaptable backbone grid should be established, alongside a bottom-up dispatch balancing mechanism, to strengthen the self-balancing capacity of distribution networks. The application of distributed smart grids should be deepened,

and the digital and intelligent development of the energy system should be advanced. On the demand side, new-type energy storage systems encompassing diverse technologies and application scenarios should be developed, enabling the widespread deployment of energy storage solutions across multiple time scales. By 2030, new-type energy storage will account for 20% of the system flexibility capacity.

2. Enhance Industrial Electrification

China should steadily advance electricity substitution in the energy consumption sector through automation and smart upgrades across sectors. This involves accelerating the adoption of industrial combined heat and power systems, as well as innovative technologies, such as industrial heat pumps and thermal batteries. In terms of feedstock substitution, the application of integrated "electricity-hydrogen" processes should be expanded in an orderly manner. By the end of the 15th FYP period, an industrial electrification rate of over 34%, and an electrification rate of over 20% for medium- and low-temperature heating equipment will be achieved. Energy efficiency and GHG emission standards should be established for newly installed industrial equipment.

3. Strengthen Institutional Frameworks for Carbon Abatement to Fulfill the NDC Commitments

The drafting and revision of laws—including the Ecological and Environmental Code (draft), Energy Law, Renewable Energy Law, Energy Conservation Law, Electricity Law, and Coal Law—should align with the green and low-carbon transition and NDC targets. The judiciary should play a stronger role in advancing green and low-carbon development. A unified national approach is essential to balancing equity and efficiency. Building upon scientifically defined emission reduction targets and implementation mechanisms, a carbon budget management system and a "National Carbon Accounting Framework" should be established to standardize scope and methodologies across five dimensions: jurisdiction, industry, enterprise, project, and product. During the 15th FYP period, the mandatory market coverage will be expanded to include sectors such as chemicals, petrochemicals, paper, and aviation, and a graded carbon pricing mechanism will be explored. Furthermore, a paid allocation mechanism for carbon quotas will be introduced, with revenues used to lower the green premium and support the just transition. The scope of voluntary emission trading will also be expanded, with accelerated development of relevant methodologies. The management and control of non-CO2 GHGs will be strengthened.

4. Prioritize Policy Measures to Stimulate Green Demand Through Greater Investments

This involves unlocking the application potential of digital technologies such as AI, and closely integrating them with urban renewal, large-scale equipment upgrades, and consumer product trade-in programs to enhance energy efficiency and climate resilience of infrastructure. Green market access thresholds should be raised to

optimize the structure and ecosystem of green and low-carbon industries, and address issues of disorderly competition. Differentiated and innovation-driven investments should be encouraged to fully leverage the comparative advantages of local green development.

II. Establishing a Technology-Based and Coordinated Framework for Nature Ecosystem Protection and Sustainable Use

5. Launch a National Major S&T Support Program for Biodiversity Conservation

Comprehensive monitoring and assessment of biodiversity across multiple dimensions should be conducted, alongside scientific research on the sustainable use of biological resources. These efforts will inform a data-driven global environmental governance framework, providing systematic theories, shared data, and integrated models for biodiversity conservation. Nature-based solutions, particularly ecosystem-based approaches for climate adaptation and resilience, such as sponge cities, resilient coastal zones, and climate-adaptive agriculture, should be promoted. To implement the Kunming-Montreal Global Biodiversity Framework (GBF), China should further optimize and refine its ecological conservation redline system, enhance the coordination between renewable energy development and the ecological conservation redline system, and share experiences and best practices with the international community.

6. Foster Institutional Mechanisms for Communication and Collaboration among Biodiversity-Related Multilateral Conventions

These include the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Ramsar Convention on Wetlands (RAMSAR). This aims to foster mutual support across intersecting issues, facilitate policy coordination among conventions, information and data sharing, and enhance coordination in national implementation actions and reports. Planning principles similar to the EU's "Do No Significant Harm" approach can be adopted to effectively enhance policy coherence among conventions.

7. Accelerate the High-Quality Development of the Blue Economy

Strategic alignment between the marine sector and broader national priorities should be reinforced. GBF targets and principles of sustainable blue economy should be integrated into both national and local marine development plans. A comprehensive framework for accounting for marine resource assets and assessing the environmental carrying capacity of marine ecosystems should be established to guide the healthy and sustainable growth of marine industries. National strategies for sustainable ocean energy and zero-emission shipping should be developed, with a strong emphasis on decarbonization and electrification in the shipping sector.

In coastal regions, pilot projects for large-scale offshore wind and tidal energy can be launched. The model of offshore energy islands, integrating energy storage, desalination, and sustainable marine aquaculture, can be explored to build a multi-energy complementary system that coordinates land and sea resources. Diversified financing channels suited to the characteristics of marine industries should be expanded, and a "National Blue Fund" can be established to support the green upgrading, transformation, and high-quality development of marine industries.

8. Accelerate and Expand Climate Adaptation Actions

A people-centred, forward-looking, and proactive climate adaptation governance system should be established to foster climate-resilient socio-ecological systems. A national smart platform for climate adaptation should be built to enhance early warning and emergency response capabilities for multiple types of disasters. Priority should be given to identifying climate hotspots and conducting data and intelligent technology-based detailed assessments and risk zoning for high-risk scenarios, such as floods, heatwaves, droughts, and sea level rise, with particular attention to the impacts of climate change on fisheries and coastal livelihoods. Based on these assessments, tailored adaptation action plans should be developed. A cross-sectoral climate adaptation coordination mechanism, encompassing departments for ecology and environment, finance, meteorology, water resources, emergency management, natural resources, agriculture, health, energy, infrastructure, and social security, should be established. Moreover, innovative models for climate adaptation financing, as well as financial instruments such as insurance and catastrophe bonds, can be explored to guide public and private capital toward adaptation projects, thereby strengthening the resilience of local communities and vulnerable populations. Finally, international cooperation on climate adaptation should be deepened, including exploring the provision of early warning services to other developing countries in the region.

9. Enhance the Financing Capacity and Allocation Efficiency of Natural Resources

The roles, responsibilities, and benefits of all stakeholders need to be clarified to establish a diversified biodiversity conservation system led by the government and involving the whole of society. This involves strengthening legal safeguards, leveraging government incentives and policy instruments to attract private-sector financing for biodiversity, and developing social and natural capital accounting to support the mainstreaming of nature-related risk disclosure among all stakeholders. Diversified financing platforms should be developed in areas such as eco-cultural tourism, forest-based wellness, and nature education. Risk funds, risk-sharing mechanisms, and benefit-sharing schemes for local communities can be established to stabilize return expectations for social capital invested in ecological protection.

III. Establishing a Sustainable and High-Quality Circular Economy Development Model

10. Align with High-Quality Development Objectives to Strengthen the Top-level Design of the Circular Economy

The 15th Five-Year Plan should define overarching goals for circular development, supported by specific binding targets such as reducing virgin raw material consumption intensity, improving comprehensive resource utilization rates, increasing the share of recycled materials, and enhancing the recovery and utilization rates of renewable resources. Circular economy development should be deeply integrated with the dual carbon goals, and circular economy measures should be fully incorporated into China's carbon abatement target system. The revision of the Circular Economy Promotion Law should be accelerated, enhancing foundational regulations, including Extended Producer Responsibility (EPR), eco-design standards, and mandatory use of recycled materials. The dedicated circular economy plan under the 15th Five-Year Plan should include sector-specific roadmaps for key industries, such as manufacturing, construction, and consumer goods. Mandatory quantitative targets for comprehensive resource utilization rates and the share of recycled materials should be set for typical consumer goods sectors (e.g., textiles, electronic and electrical products, goods packaging) and high-impact sectors (e.g., construction, automobiles, batteries).

11. Foster Synergies Between Solid Waste Management and Circular Economy

Incentive policies should be improved, and pilot programs such as "Zero-Waste Cities" and key cities for building waste recycling systems should be deepened and expanded. Representative cities should be selected to pilot circular economy infrastructure and establish modern, automated, and digitalized systems for the collection, sorting, and recycling of waste textiles. Grading and classification standards should be established, based on environmental impact and economic assessments of circular technologies. China should explore a closed-loop circular economy model tailored to its national context, gradually expand the scope of pilot demonstrations, and actively contribute to global efforts to combat plastic pollution.

12. Strengthen Demand-Side Guidance and Management and Accelerate the Development of the Recycled Materials Market

Labelling and incentive mechanisms for circular products can be introduced to encourage and guide consumers toward more sustainable choices. Public sector entities should prioritize the procurement of certified high-circularity products. The integration of digital technologies with the circular economy should be accelerated to establish digital traceability systems for materials and products covering raw materials and entire industrial chains. Research and pilot applications of blockchain-based data management and sharing technologies should be conducted, with proactive measures to address data security, integrity, and privacy concerns.

IV. Introducing Supply Chain Finance to Support Low-Carbon Technology Innovation, and Developing Innovative Financial Products and Services to Mitigate Stranded Asset Risks

13. Drive Green Innovation in Supply Chains Through Anchor Enterprises' Green Demand

The role of alliances of influential anchor enterprises can be leveraged by encouraging them to take the lead in making carbon reduction commitments and conducting carbon emission accounting and information disclosure across entire industrial chains. Green demand from key industries should be consolidated to drive emission reductions throughout the industrial chain. From a debt financing perspective, financial institutions should be encouraged to extend policy-based financial incentives to SMEs and facilitate the adoption of sustainability disclosure standards applicable to SMEs. Digital technologies such as blockchain can be leveraged to build a shared data platform for green supply chain finance, enabling traceable, verifiable, and low-cost disclosure of green asset information. From an equity financing perspective, anchor enterprises can play a leading role in establishing a "green demand scenario + joint incubation" mechanism to accelerate green technology innovation across the supply chain.

14. Encourage Financial Institutions to Integrate Carbon Emission Indicators into Financial Services With a Focus on M&A Financing

Carbon emission indicators should be incorporated into loan approval criteria to enhance the transparency of emissions data. The mergers and acquisitions (M&A) of SMEs by large companies in high-carbon industries should be promoted to alleviate stranded asset pressures. Enterprises with strong technological innovation capabilities and low-carbon transition potential should be supported in raising acquisition funds through methods such as issuing stocks, bonds, and convertible bonds. New M&A financing models, such as acquisition funds, can be actively explored, using carbon reduction progress as a key investment criterion.

15. Support the Development of Debt-Swap Instruments to Facilitate the Early Retirement of Stranded Assets in High-Carbon Industries

Financial institutions can be encouraged to develop and promote debt-swap instruments linked to the retirement progress of high-carbon assets, where interest rates are inversely tied to the pace of asset phase-out. These instruments can help offset the financial losses associated with early retirement by offering lower financing costs and will be piloted during the 15th FYP period. Monetary policy tools (e.g., relending and rediscounting) and fiscal measures (e.g., guarantees and tax incentives) can be introduced to increase institutional participation.

V. Systematically Planning for Just and Inclusive Transition in Traditional Energy Regions to Support Regional Coordinated Development

16. Develop Traditional Energy Regions Into National Demonstration Zones for Low-Carbon and Just Transition

Cross-departmental coordination mechanisms should be established to support the overall planning of energy transition in traditional energy regions, clarifying green and low-carbon transition targets and key milestones for coal-producing areas. Intra-regional and inter-regional collaboration should be strengthened by fostering emerging industries to promote local absorption of green electricity and optimizing inter-provincial coordination plans for key industries. A roadmap for just transition and regional coordinated development in traditional energy regions should be developed. A National Just Transition Fund can be launched to support the building of a reemployment policy system encompassing vocational skills training, job transition support, and income protection, as well as to fund the construction of facilities necessary for regional energy transition. Workers in traditional energy sectors need to be precisely identified and supported with targeted measures to enhance their reemployment capacity and resilience throughout the transition. Gender equality can be integrated into the energy transition process through innovative policies and financial mechanisms.

17. Accelerate the Building of National or Regional Zero-Carbon Special Trade Zones

Zero-carbon industrial parks should be launched centred on new energy systems, hydrogen-based industries, and carbon removal technologies. Building on renewable energy and energy storage, the relocation of traditional energy-intensive industries—such as coal power, steel, aluminum, petrochemicals, coal chemicals, and cement—to western regions and their deep integration with renewable energy can be explored to establish new industrial models. A comprehensive green hydrogen network—including production, storage, and refuelling infrastructure—can be established to expand its use across transportation, industry, and energy storage sectors. An integrated demonstration system linking green electricity, green hydrogen, and end-use applications should be established to maximize the climate benefits of hydrogen. A portfolio of carbon removal strategies—including carbon capture, utilization, and storage (CCUS) and biological carbon sinks—can be systematically deployed. Innovation and demonstration clusters for carbon removal technologies, and internationally competitive zero-carbon special trade zones, should be established.

18. Build a Diversified Financial Support System for the Coal Industry Regions

A green development fund can be established to support just transition, building a multi-tiered financial support system that combines government guidance with market-based operations.

Capital efficiency and governance transparency can be enhanced through multi-stakeholder collaboration and public engagement. Government support may prioritize low-carbon, zero-carbon, and disruptive innovation technologies, with a particular focus on technology-driven private enterprises to accelerate large-scale deployment. Financial institutions should be encouraged to incorporate just transition principles into financial product and service innovation, develop quantitative indicators linked to transition finance, and integrate "transition plans" into investment decision making. Stewardship practices can be strengthened by including binding clauses related to transition objectives in investment agreements.

VI. Upholding High-Standard Opening Up and Advancing Practical Cooperation to Jointly Build a Clean and Beautiful World

19. Strengthen Coordination of International Cooperation Mechanisms for Green Development

Building upon multilateral financial frameworks and fiscal and tax policy instruments, China may launch the Global Green Development Initiative and establish a dedicated international cooperation fund for green development to support South-South collaboration on environment and climate. An inter-ministerial coordination mechanism for green development can be established to align China's international cooperation efforts in green investment, finance, trade, and supply chains, thereby facilitating the green transition in other developing countries. China can also develop a professional talent pool for international cooperation on ecological and environmental issues, forming a green and low-carbon expert network in the Global South. Through cross-border training, joint research initiatives, and talent exchange programs, this initiative will provide intellectual support and human capital for green development in developing countries.

20. Establish a Robust Risk Management System for Overseas Green Finance

China's policy and commercial banks operating abroad may establish green project pipelines based on internationally recognized standards to mitigate economic, financial, social, and environmental risks. Climate and environmental risk rating systems for overseas investments can be developed and closely aligned with Environmental and Social Risk Management (ESRM) objectives, to ensure that all overseas projects are consistent with China's green development commitments. Pathways for international cooperation in areas such as carbon market connectivity can be explored to foster global abatement efforts, lower mitigation costs, and facilitate the cross-border flow of capital and technology.

21. Build an Open, Inclusive, and Mutually Beneficial Global Green Supply Chain Cooperation Network

To maintain momentum in renewable energy development and share its industrial development experience, China can leverage its vast market

scale, comprehensive manufacturing capabilities, infrastructure advantage, skilled workforce, and adaptive industrial policies to support the global goals of tripling renewable energy capacity and of green transition. Government guidance, incentives, and evaluation for central and state-owned enterprises engaged in overseas green business should be strengthened. Green industries should be encouraged to accelerate overseas joint ventures and localized operations, facilitating knowledge and technology transfer, mutual recognition of standards, and shared benefits from the green transition. Under the framework of the Regional Comprehensive Economic Partnership (RCEP), China may consider establishing a "green free trade mechanism" to accelerate tariff reductions and eliminate non-tariff barriers for green and low-carbon products and services. China may also expand imports of green products and services from developing countries.

22. Constructively Contribute to the Shaping of the International Green Financial System

China can support developing countries in establishing investment platforms for green and low-carbon transition. Chinese financial institutions and enterprises should be encouraged to engage with green investment and financing projects, while sharing China's experience in green planning, policies, industries, and investments with developing countries. China may advocate for the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB) to scale up their climate investment and financing portfolios, adopt innovative climate finance instruments tailored to the needs and capacities of Global South countries, enhance access to concessional climate finance, and develop blended finance and co-financing to mobilize private capital toward green projects. The Chinese government can constructively participate in international mechanisms and initiatives related to green investment and financing, such as the London Coalition on Sustainable Sovereign Debt, the Coalition of Finance Ministers for Climate Action, and the G20 Finance Ministers Meeting. China should also strengthen support for the Global Development Initiative and the Belt and Road Initiative, and better leverage mechanisms such as the Partnership for Green Investment and Financing to enhance BRICS cooperation in green investment and financing.

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