

Maintaining the Strategic Determination and Stabilizing Expectations towards a Low-Carbon Green Transition: Opening a New Green Chapter for High-Quality Development

—2022 Policy Recommendations of the China Council for International Cooperation on Environment and Development



As unprecedented global changes and the once-in-a-century pandemic intertwine, the world finds itself in a new period of turbulence and changes. Economic recovery is fragile and weak, geopolitical conflicts are escalating, energy and food prices are rising, and global ecological deficits are widening. The gap between poor and rich countries is ever increasing, while the number of people living in extreme poverty is growing. Four key climate change indicators—greenhouse gas concentrations, sea level rise, ocean heat, and ocean acidification—all set new records in 2021. Human activities are causing land, ocean, and atmospheric changes on a global scale, with lasting and detrimental effects on ecosystems and sustainable development.

In an international context of mounting instability, risk and shocks, countries around the world are faced with the challenge of reconciling short-term security and stability goals with long-term green and low-carbon development. The international community is paying close attention to China's strategic determination and pathways toward the multiple objectives of carbon reduction, pollution reduction, ecological restoration, nature conservation, and growth under the general principle of "prioritizing stability while pursuing progress." It will not only affect the practice of China's new development concepts of innovation, coordination, green, openness, and sharing, but also drive the advancement of inclusive, green, low-carbon development at the global level.

As it marked its 30th anniversary in 2022, the China Council for International Cooperation on Environment and Development (CCICED) recommends that China should unremittingly hold firm in its strategic determination towards Ecological Civilization, by prioritizing and

stabilizing expectations for a green, low-carbon transition, and move from securing short-term economic, energy, food and other security to unleashing win-win short and long-term green economic stimulus, innovation, low-carbon growth in which science links short, interim and longer-term green development targets and timetables. In this way, China will open a new green chapter for high-quality development.

Stabilize growth through green transition and ensure short-term security and stability.

A win-win situation for energy security and climate mitigation can be achieved through the development of renewable energy and the decarbonization of key economic sectors and urban centers with increased demand-side energy savings, energy and other resource efficiency circular economy action. Detailed investment and green technology roadmaps should be developed, updated and monitored that align sector-specific policies with carbon peaking and carbon neutrality goals. China should adopt three interlinked national strategies for a sustainable food system, Nature Based Solutions and climate adaptation. Low-carbon, climate resilient and clean development should be integrated into the large-scale spatial planning in large river basins and other areas to promote coordinated regional development.

Drive growth through green transition and unleash the momentum of high-quality and innovative growth in the medium and long terms.

China should integrate digitalization with sustainable development and promote green technology innovation and green digital governance, and advance the acceleration of green technology deployment in all relevant sectors through direct or blended public-private investment, standards, incentives, green taxes. Engage the public in linking digital platforms with low-carbon, green lifestyles.

Strengthen growth through green transition, improving institutions and mechanisms for governance, deepening green and low-carbon dialogues and cooperation, and laying the foundation for inclusive, green, and healthy global development.

Policy coherence should be enhanced. A multi-objective collaborative mechanism to maximize synergies among carbon emissions reduction, pollution prevention, ecological restoration, nature conservation, circular economy, climate adaptation and economic prosperity should be established. Develop short, medium- and long-term risk prevention and mitigation plans for industrial and other sectors, regions and communities affected by the low-carbon transition. Maintain engagements in multilateral and bilateral cooperation and concrete exchanges through the Green

Belt and Road Initiative, multilateral and regional trade cooperation platforms to achieve the Sustainable Development Goals.

Specific recommendations are as follows:

I. Remain Committed to a Green and Low-Carbon Transition and Ensuring Security and Stability in Key Areas

i. Economic Security

1. Implement green and low-carbon economic stimulus measures to maintain macroeconomic stability. Economic recovery plans should prioritize strategic investments towards green and low-carbon development. The expanded use of carbon pricing and other market-based green measures should maximize cost-effective reductions while paying special attention to price stability and investment predictability. Standards should be planned with industry associations to scale-up and mainstream green public procurement, accelerate green technology innovation and productivity. Steps to promote green trade in low-carbon, environmental products and services should increase. Further efforts are needed towards the sustainable sourcing of food and other supply chains, including traceability systems, information disclosure and incentives to promote compliance.

ii. Energy Security

2. Accelerate investment in renewable energy. The broad reform of China's electricity power market towards greater market orientation will strengthen the efficiency of market pricing mechanisms that in turn will attract additional private sector investments in green electricity generation. The current spot market should be expanded, with additional pilot projects that include inter-provincial trading. Increased renewable energy deployment should include land and offshore planning, using best-in-class environmental impact assessments, and respect the ecological redline and spatial planning that protect ecological systems, including migratory corridors. The further scaling-up of renewable energy should include the early queuing for initial public offerings (IPOs), targeted loans and equity financing, and lower required reserve ratios. Regional renewable energy pilot projects should focus on correcting poor

intra-provincial power consumption and outward grid connectivity, the inadequate development of regional power grids, and lagging price transmission mechanisms. Power grids should become more flexible and interconnected, and complemented with additional power storage to better integrate renewable energy sources.

3. Stabilize the stock, strictly control the increment and guide the orderly phase-down of coal power. Make efforts to peak coal use by 2025, in order to achieve peaking of carbon dioxide emissions before 2030. Short- and interim-term planning should be closely aligned with the dual control low-carbon transition, comprised of a short-term shift in coal power from base-load power generation to peak-management power generation; the elimination of outdated coal generating capacity while ensuring reasonable operating hours for high-efficiency and low-emission coal power; modernizing the remaining coal power fleet to further cut criteria air pollutants; paying special attention to cutting methane and other short-lived climate pollutants; paying close attention and leading financial risk disclosure related to coal and other fossil-fuel investments, and adjusting the investors' expectations for action related to stranded asset risks. An open and competitive auction-based mechanism to

replace the guaranteed hours and price of coal-fired power generation units should be established, in conjunction with an efficient electricity-price market to provide economic returns for the flexibility of power.

iii. Food Security

4. Develop a national strategy for a sustainable agri-food system transition to ensure food security and contribute to carbon peaking and carbon neutrality. Increase the use of low till, no till, cover cropping, rotational cropping, and other proven regenerative and ecological restoration methods. Promote new technologies and applications to increase food production capacity while reducing greenhouse gas emissions within agricultural production chains; protect natural ecosystems and productive agricultural land from conversion to other uses; restore damaged natural ecosystems and degraded agricultural soils; expand the "Clear Your Plate" campaign to further cut food waste and plastic waste; combine mandatory and voluntary product standards to reduce greenhouse gas emissions in the food supply chain; and launch a pilot food label that integrates healthy and low-carbon food consumer information.

5. Optimize agricultural fiscal incentives and financing measures. Reform and repurpose

environmentally harmful agricultural subsidies towards support system that increase the harvesting of greener, ecological and carbon neutral agricultural products. A green tax system covering agri-food should include a carbon tax for large-scale, carbon-intensive aspects of the agri-food system that would catalyze financing and incentives for sustainable production and procurement in the agricultural supply chain, supported by market-oriented innovation of green agri-food technologies. Eco-compensation payments should assist farmers and fishers in the just transition to sustainable food systems.

iv. Climate Security

6. Integrate climate risk assessment and adaptation strategies into large scale spatial planning and the design of urban and rural areas to enhance their climate resilience. A national climate risk map should be developed and updated regularly. A comprehensive climate risk assessment system by zoning and categorization and targeted

climate adaptation strategies need to be developed. A resilient urban and rural spatial planning should be built and strict climate safety assessments for project site selection should be conducted. Integrate the use of nature-based solutions and green infrastructure to strengthen the construction of systematic and engineering disaster prevention systems.

7. Further innovate financial instruments to enhance risk resilience. The central government and local governments along the Yangtze River and other river basins, coastal, urban and other areas should jointly establish a pooled risk fund to co-finance risk mitigation actions and accelerate long-term climate-resilient planning. A disaster insurance system that combines policy insurance and commercial insurance should be developed, with a focus on securing insurance coverage in rural areas. Disaster insurance can help increase public awareness about practical and affordable climate risk mitigation actions.

II. Accelerate Green Technological Innovation to Foster New Economic Growth Impetus

8. Align digitalization with sustainability transformations to enable and accelerate low-carbon technological innovations. More effort should be made to accelerate

the development of digital technologies, explore intelligent solutions for sustainable development, and optimize production and consumption patterns; promote intelligent

manufacturing, digitalize cities and infrastructure, and support sustainable transport and climate-smart production ; optimize the spatial layout of the digital sector, data centers and IT-infrastructure to advance net zero operations; and accelerate the channeling of more computing resources from the eastern areas to the less developed western regions to promote the low-carbon and high-quality growth of the digital economy. Pay special attention to the enormous role of young people in using digital apps to accelerate carbon neutral, zero-waste and nature positive lifestyles and consumer choices.

9.Facilitate the scaling-up of low-carbon and zero-carbon innovative technologies. Maximize the role of new market entrants as

the main driver of technological innovation, by emphasizing the role of market-oriented renewable energy actors. Scale-up the upgrading and improvement of low-carbon technologies such as heat pumps, the greater use of wooden materials in buildings, net zero transmission systems, recharging infrastructure, and other steps. Increase the use of applied research funding for emerging green technologies, through direct financing, joint ventures and public procurement; further develop guidelines, tax and other incentives for net zero commercial, institutional and residential buildings; increase investment in green hydrogen, small-scale carbon capture, utilization and storage, smart grids, and circular economy opportunities.

III.Strengthen a Comprehensive, Green and Low-Carbon System to Bolster Long-Term Endeavors in High-Quality Development

i. Establish a multi-objective collaborative mechanism for pollution reduction, carbon reduction, ecological restoration, nature conservation, and growth

10.Mainstream Nature Based Solutions (NbS). Establish a standard Chinese system for NbS that aligns with the 2022 UNEA multilateral definition, and international

standards; integrate NbS into existing policies such as the ecological redline, expand the *Green Bond Endorsed Projects Catalogue* and an updated green finance classification system to include eligible NbS project financing; establish measurement and indicators to establish a multi-disciplinary monitoring and evaluation platform; integrate climate and biodiversity outcomes in NbS fi-

nancing, including linking emerging climate risk and nature risk disclosure tools..

11.Develop a sound governance system for green and low-carbon transition and strengthen innovative and flexible institutional capacity building. Prioritize the development of a dedicated climate change law to set the necessary legal basis for China's climate transition, and explore to include dual carbon targets and climate adaptation into the scope of public interest litigation by procurators. Create an ongoing working dialogue between financial regulators, supervisors and others and MEE to develop and ensure ESG standards. Allow consumers to purchase directly green electricity. Establish a green responsibility liability account for governments, enterprises, and individuals. Develop a comprehensive climate data system and standards, and increase the integrity of the national carbon market. Strengthen emissions data quality through capacity building and the clear delineation of responsibilities emitting companies, and set effective deterrents for failure to comply. Expand carbon market coverage to other sectors like steel, aluminum, chemicals and others, improve carbon pricing linked to power market reform, adopt a national carbon emissions cap with clear annual targets on the cap in relation to the dual control system. Carbon

pricing should take account of differing distributional effects on vulnerable groups including lower-income households and women, with supporting income measures like direct payments to households, or other off-setting payments. Specific attention should be paid to regional and sectorial differences, the inter-regional factor flow and security of industrial and supply chains.

ii. Improve market-driven and government-led innovation mechanisms for sustainable investment and financing

12.Build a diversified capital investment and financing mechanism. The use of transition finance to help companies transition from brown to green operations should be based on guidelines and a measurement system that discloses climate, biodiversity and pollution risks, and sets transition timelines aligned to the 1+N and dual control system. Ensure that transition investments do not lead to a net increase in fossil fuels over the mid-term. Additional steps should be taken to encourage public-private partnerships (PPP) and payments for ecosystem services (PES) to integrate climate, environmental and ecological financing. A multi-stakeholder system to track and report annually on ESG-related greenwashing should be established.

iii. Prevent transition-related risks in key affected sectors and regions

13. Systematically assess risks from green and low-carbon transition and identify key affected sectors and regions. Undertake an ongoing, systemic risk assessment of the low carbon green transition, paying close attention to inflationary effects of carbon pricing, stranded asset financial risks, price volatility and default risks in high-carbon sectors. Strengthen risk information disclosure and early warning systems for related regions, sectors, and assets. Create a national climate risk map that can be scaled for use by local authorities, engineers, city plan-

ners and others. To support an equitable and inclusive just transition, develop relevant social sustainability frameworks, to take into account the needs at the community level, including changing requirements for livelihoods, employment, youth engagement, gender equity, and feasible opportunities for green development. Long-term plans should include providing phased policy safeguards for coal-dependent or high-carbon industrial and other sectors, with social measures that include skills training, re-employment, and local tax adjustments to facilitate a fair and smooth transition.

IV. Enhancing Integrated Ecosystem Based Management and Optimizing Low Carbon and Resilient Spatial Patterns

i. Strengthen integrated climate-resilient management for low-carbon and resilient river basins

14. Improve climate resilience in the integrated management of important river basins. Implement the requirements of the Yangtze River Protection Law and develop a cooperative governance mechanism based on large-scale spatial planning and the co-management of pollution, ecosystem protection, low-carbon development and climate adaptation. Detailed climate vulner-

ability assessments should be made throughout the Yangtze River basin, from upstream to downstream areas, major tributaries, key urban and rural agglomerations, river coastlines, estuarine deltas, flood storage areas, and agriculture and natural ecological zones. A risk early warning system should be implemented at the basin level for extreme climate-related weather events, with special attention to flooding, wildfires, drought and heat waves.

15. Reinforce ecological conservation and restoration of river basins. Strengthen the control of soil erosion and desertification in mountainous and hilly areas and implement the “returning space to rivers” campaign to restore river and lake basins. Systematically control hydro-electric power, starting with ensuring proposed projects undergo robust, science-informed and participatory environmental impact assessments, and that all hydropower operations meet the requirements of hydrological integrity and environmental flows. Mitigate negative impacts through ecological compensation areas, the construction of fish passages; promote ‘grain-for-green’ in ecologically sensitive areas and strengthen ecological restoration; pay attention to the melting of glaciers at the source of the Yangtze River and strengthen monitoring and early warning; and improve the safety and security mechanisms for vulnerable groups – especially women - in disaster-prone areas such as villages, small towns, and flood storage areas.

16. Strengthen integrated water and land management of basin and promote the transition of the downstream industrial port shoreline into an ecological shoreline and a shoreline for residents. Concerted effort should be made to develop and oversee the implementation of the ecological envi-

ronment zero-development and restricted protected area access list based on the ecological conservation redline that include setting regulations covering the upper limit of resource utilization and shoreline protection and utilization. Integrate green and low-carbon objectives in the basin-wide law, regulations, standards, and opinions that include thresholds for the optimal utilization and vacating and replacing of the shoreline; reserve land on the shoreline to provide flexibility for future green development in compliance with spatial plans; explore the cultural and economic values of water; and promote shoreline renewal and public space construction.

ii. Ocean Security: Advancing a sustainable, low-carbon oceans economy

17. Strengthen the protection and restoration of marine ecosystems and harness the value of marine carbon sinks. Extensive measures should be taken to strictly enforce zoning management systems to avoid further destruction of marine habitats and coastal wetlands, and to restore degraded or damaged coastal wetlands and strictly protect critical marine habitats; invest in the creation of resilient, well-connected networks of marine protected areas covering national parks, nature reserves, and marine areas within the ecological conservation red-lines; align

large marine protected areas and habitats of major importance with carbon storage; refer to the Intergovernmental Panel on Climate Change (IPCC) guidelines to include oceanic carbon sinks in the national greenhouse gas inventory; and scientifically assess blue carbon in marine and coastal ecosystems under climate-smart integrated management for inclusion in China's updated nationally determined contribution. Anticipate the forthcoming global treaty on tackling plastic pollution, by taking early measures that encourage reduction, reuse, recycling and replacement, and support international cooperation. Initiate pilot projects to tackle plastic pollution before the completion of the global plastics treaty.

18. Develop green marine industries and climate-smart ports. Strengthen research and international cooperation in safe and efficient marine carbon sequestration technologies; establish supporting safeguards and incentive mechanisms for marine carbon sinks; explore the development of the application of carbon capture, utilization, and storage in offshore waters; intensify research and development on clean fuel technologies; expand the scale of offshore wind power production, and support the development of green hydrogen and ammonia energy industries; explore the establishment of green marine corridors connecting net zero marine ports; and initiate further measures to increase the use of renewable fuels in ocean-going fleets.

1.5 dialogues to control CO₂ and non-CO₂ greenhouse gases. Building on the China-EU, G20, UNEP and other initiatives, continue to identify the next steps in green financial mechanisms, including scaling-up of Nature Based Solutions.

20. Maintain the momentum of linking nature and climate actions and promoting synergies. Harness climate financing linked to Nature Based Solutions by formalizing full regulations for China Certified Emissions Reduction (CCER) methodologies, projects and transactions. Responding to the One Trillion Tree Initiative, forest and other carbon sinks, and the maintenance of existing forest resources should be strengthened. Foster participation to incorporate local knowledge and promote ownership for implementation at the local level. It is recommended that discussions on synergistic climate change governance be strengthened at COP 15 Phase II and that further progress be made on synergies between biodiversity and climate change at the UNFCCC COP 27 to promote the integration of global climate and biodiversity governance into global development initiatives.

ii. Pathways towards a green and low-carbon Belt and Road Initiative (BRI)

21. Scale-up technical cooperation in clean, renewable energy. Capitalizing on China's first-mover advantage and market experience in the global clean energy market, promote technology transfer and cooperation in low-carbon and green technologies in partnership with BRI countries, focusing on clean energy infrastructure, power storage, and required grid construction, equipment manufacturing, and technology cooperation and application. Develop a coherent, comprehensive system to coordinate green technical cooperation across partner BRI countries, and support suitable local initiatives through policy and strategy alignment, investment and market support, capacity building, and technical assistance.

22. Guide various market players to improve their green investment and financing service capacity. Measures should be taken to establish a government capital-led and market-oriented BRI green development fund, explore innovative and multi-channel blended finance, and further take advantage of government and private sector cooperation; set sound, ESG standards, based on the March 2022 four-ministry green BRI guidelines, with a particular focus on the regular disclosure of risks and impacts of overseas financing; set soft targets to guide policy banks and major investment enterprises to focus on the

V. Deepen International Environmental Cooperation to Maintain an Open, Inclusive and Mutually Beneficial International Environmental Governance Process

i. Strengthen international climate and biodiversity dialogues and exchanges and contributing to global environmental governance

19. Continuously promote bilateral and multilateral climate and biodiversity dialogues. In the COP 15 process, China should prepare for the implementation of the Post-2020

Global Biodiversity Framework, including updating the National Biodiversity Strategy and Action Plan (NBSAP). Building on positive dialogue mechanisms such as, EU – China High Level Climate and Environment Dialogue, and the Ministerial Meeting on Climate Action, China and relevant parties should actively carry out Track 2 and Track

proportion of investment in green projects; encourage development financial institutions to support the development of renewable energy projects; develop an inter-ministerial coordination and incentive-restraint mechanisms for key investment projects; promote the establishment of an information platform to analyze the implementation of green BRI investment cooperation; and further clarify the endorsed scope, criteria, and good practices of BRI green investment and financing. Develop a pilot BRI green taxonomy in cooperation with partner countries.

23. Deepen international cooperation to support green and low-carbon development in BRI countries. Relying on multilateral cooperation platforms such as the BRI International Green Development Coalition

and the Green Investment Principles (GIP) for the Belt and Road, further efforts should be made to strengthen dialogues and exchanges among stakeholders, promote the establishment of green project development platforms under the framework of South–South cooperation, and deeply align with the green and low-carbon development needs of BRI countries. In conjunction with the Belt and Road South-South Cooperation Initiative on Climate Change and the Green Silk Road Envoys Program, China should help enhance the local capacity of BRI countries to address climate change and achieve an inclusive and resilient recovery; strengthen the South–North–South cooperation platform for low-carbon finance.

