CCICED High Level Task Force on

"China's Environment and Development Outlook"

China's Environment and Development Outlook

——A Path of Green Transformation for Harmonious Coexistence between Humanity and Nature

Executive Summary of Interim Report

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***** *The co-leaders and members of this Main Synthesis Report serve in their personal capacities. The views and opinions expressed in this Main Synthesis Report are those of the individual experts participating in the HLTF Team and do not represent those of their organizations and CCICED.*

Executive Summary

1. Research Background

The world is currently undergoing profound changes unseen in a century, marked by an intertwining of new and old problems and complex contradictions. The three escalating environmental crises—climate change, biodiversity loss, and pollution, posed an ever-increasing threat to human survival and development. At present, China's economic and social development has entered a new stage of accelerating green and low-carbon development to achieve high-quality growth. China has articulated a grand vision for building a modernization of harmonious coexistence between humanity and nature by 2035 and to 2050, advancing a new journey to build a Beautiful China 2035 and advance green transformation. However, achieving this vision faces complex and formidable challenges.

Domestically, China's ecological civilization construction remains in a critical period defined by mounting pressures and significant challenges. The green transformation is a long-term endeavor that requires more systemic changes in development models and stronger driving forces. Internationally, the global landscape is characterized by sluggish economic growth, rising trade protectionism, and frequent geopolitical conflicts. Environmental and climate issues risk becoming focal points of international governance and geopolitical competition. Although the global trend towards a green and low-carbon transformation is largely irreversible, it faces a surge in uncertainties, which introduce instability and external risks into China's own environment and development process.

The research methodologies employed in this interim report include literature reviews, international comparisons, brainstorming, model-based forecasting, and scenario analysis, using roughly 2012 as its baseline. Its main content includes a review of the past progress of environment and development in China and globally, a summary of the path and experiences of China's strategic environmental transformation, and an initial outlook of the global environment and development landscape to 2035 and mid-century. This interim report also proposes policy recommendations to China’s 15th Five Year Plan. The final report will be delivered during CCICED 2026 Annual General Meeting, and will include China’s environment and development outlook through 2035 and 2050, drawing on the findings of various scenarios, foresight exercises, back-casting and other exercises.

2. Research Results

Progress and Achievements in China's Green Transition: China's green transition is accelerating comprehensively, with green development becoming a defining feature of its high-quality economic growth. According to the United Nations' "Sustainable Development Goals Report 2025" and recent studies by international institutions such as the International Monetary Fund (IMF),

China's economy is steadily shifting toward a higher-quality, more balanced, and sustainable growth model. Through synthesizing existing research, calculating indicators related to Green Total Factor Productivity, and constructing an evaluation index system, the research team has independently confirmed this conclusion: China's green transition has exhibited a markedly accelerated trend since 2015, demonstrating distinct characteristics across five key sectors:

First, the industrial structure is shifting towards newer and greener. According to mainstream international research and the research team's calculations, in 2025, the value-added from China's green and low-carbon industries primarily originated from service sectors such as new energy, green transportation, and green finance. Green manufacturing has developed rapidly, with a foundational green manufacturing industrial and supply chain system largely established. The proportion of output value from green factories within the total manufacturing output has increased overall, leading to a continuous rise in the industrial "green" quotient.

Second, the energy structure has been continuously shifting towards green and low-carbon models. China has established the world's largest and fastest-growing renewable energy system, building the most extensive and complete new energy industrial chain, along with the world's largest clean power generation system and transmission network. One out of every three kilowatt-hours of electricity consumed nationwide is now from green sources.

Third, ecological and environmental quality has improved markedly. Air quality has seen significant enhancement, with research from the University of Chicago indicating that China achieved the same reduction in atmospheric PM2.5 concentration in just seven years as the United States did over three decades under the Clean Air Act. Overall water quality has reached levels comparable to those in developed countries, and the focus of water environmental management has shifted from a primary emphasis on total pollutant load control to an integrated management model oriented towards water quality improvement and ecological function conservation. In the past decade (2013-2023), China's soil pollution control has achieved a leapfrog development, transitioning from a legal void to a systematic management framework. In the solid waste sector, China now operates over 1,000 waste-to-energy plants, accounting for nearly half of the global total.

Fourth, significant achievements have been made in ecosystem conservation and biodiversity protection. China has designated ecological conservation redlines, covering more than 30% of its terrestrial territory. These areas effectively protect 90% of its terrestrial ecosystem types and 74% of its national key wildlife species. China has become the country with the fastest and largest increase in green areas globally, contributing one-quarter of the world's new greening.

Fifth, notable progress has also been made in addressing climate change. The national carbon emission trading market has been expanded to cover four industries: power, steel, cement, and aluminum smelting. Measures including the green and low-carbon transition of industries, the decarbonization of energy supplies, the enhancement of carbon sinks, and the establishment of a carbon market have collectively and notably curbed greenhouse gas emissions. In addition, China launched its *National Climate Change Adaptation Strategy 2035* in 2022.

Sixth, China's global role in the international environmental and climate regimes has evolved from diligent and dutiful participant to shaper of new norms, pioneer of new approaches and leader in agenda-setting. The past decade has also seen a convergence of the environmental and development, domestic and international policy agendas reflecting the growing interconnectedness of China's economy with the global economy.

The Internal Logic of China's Green Transition: China's progress in green transition reflects a systematic approach that integrates the Ecological Civilization into national development strategies. Since 2012, the Ecological Civilization has been elevated to a strategic priority and incorporated into successive Five-Year Plans, which translated goals into actionable measures. These plans have been supported by legal, institutional, and financial reforms, creating a governance framework and implementation capacity for green development. This approach has shaped China's pathway toward ecological and environmental sustainability.

The study identifies several challenges in China's green transition, including its trade-offs with and other environmental and social objectives, domestic policy bottlenecks, and growing global uncertainties that may affect progress.

To address these issues, the report proposes recommendations for ***China's 15th Five Year Plan on Green Development*****,** focusing on integrated approaches, stronger governance capacity and enhanced international cooperation.

Recommendation 1. Make "green transition" and "green productive forces" central themes of the 15th Five-Year Plan with more ambitious targets for environmental protection and climate change response than those in the 14th Five-Year Plan. Accelerate the shift of China's economic and social development from "light green" to "deep green," and the transformation of environmental governance from "single-issue" and "end-of-pipe" to "systematic" and "source control." At the same time, emphasize a just transition, designing policies to ensure that different sectors, regions, and communities benefit from the green transition, making it a powerful engine for green economic growth.

Recommendation 2. Comprehensively integrate green elements into the national macroeconomic governance system. Improve the pricing and paid-use mechanisms for resources and the environment, such as natural resources, environmental capacity, and carbon emission rights, and build a sustainable market system. Explore the establishment of a comprehensive development indicator system that covers dimensions including public well-being, environmental sustainability, and resilience, innovate statistical mechanisms, and form a complete development measurement framework that transcends traditional GDP and includes indicators of welfare generated outside the market.

Recommendation 3. Accelerate the reduction of fossil fuel consumption with clear and high-level policy guidance, promote preparatory work in relevant regions and industries to align their development paths with national and international commitments. Enhance people-centered just transition support systems and public engagement

Recommendation 4. Adopt integrated policies to address climate change, biodiversity loss, and environmental pollution. Establish a scientific monitoring and citizen participation mechanism, and build an end-to-end knowledge service system that integrates information, ensures public disclosure, and provides professional interpretation. Aim for achieving WHO air quality standards for over 90% of the days in the year by the end of the 15th Five-Year Plan period. Strengthen the synergistic governance of nitrogen oxides, ozone and VOCs, and improve the management plan for ammonia emission reduction.

Recommendation 5. Elevate the responsibility for climate adaptation work to the State Council level, with the State Council coordinating cross-regional collaboration and establishing a regular reporting system. Build an independent and professionalized climate adaptation think tank system, to systematically assess the challenges and opportunities for infrastructure in future climate risks. Require the People's Bank of China to supervise financial institutions in regularly reviewing their climate risk exposure and developing response plans.

Recommendation 6. Expand the scope of terrestrial and marine protected areas, strengthen local monitoring and assessment capabilities, and apply digital and AI technologies to optimize spatial planning. Leverage existing demonstration zones to pilot Nature-based Solutions, advance the blue economy strategy and marine ecological restoration. Explore the integration of "Other Effective Area-based Conservation Measures" (OECMs) into the mainstream conservation system, and enhance community resilience and promote nature-related employment.

Recommendation 7. Expedite the application of the eco-environmental zoning management system, and accelerate its coordination optimization with national spatial planning, strategic environmental assessment, and project-level environmental impact assessment systems to support the establishment of a differentiated and precise environmental governance framework. Accelerate the reform of the science and technology system in the ecological and environmental field to build a vertically integrated innovation system from the national to the provincial level. Expand initiatives to restore degraded lands and ecosystems, exploring pathways such as "rewilding" to enhance carbon sequestration capacity.

Recommendation 8. Expedite forward-looking legislation in areas such as climate change, biodiversity conservation, ecological security, and new pollutants. Explore the development of climate justice to ensure that the rule of law effectively safeguards green development.

Recommendation 9. Enhance the application of digitalization and artificial intelligence in green development and environmental protection. Focus on breaking down data barriers, improving data quality and governance capabilities, and establish an ecological and environmental governance system adapted to the digital transformation.

Recommendation 10. Adopt a more proactive stance in advancing international environmental and climate cooperation. Build global green value chains including sustainable commodities like palm oil. Strengthen the greening of the Belt and Road Initiative and establish project assessment and pipeline mechanisms. Uphold the principle of “common but differentiated

responsibilities", promote a fair and equitable global environmental governance system, deepen South-South cooperation, and provide public goods for green development.