

Preface

I. Overview

The pursuit of social fairness and justice amid the green transition has assumed heightened importance and immediacy. The concept of a just transition is not only essential to ensure a broader and more equitable distribution of development benefits as China enters a phase of high value development but is also consistent with the core principles that guide the steady progress toward carbon neutrality. It also plays a critical role in mitigating and resolving the economic, financial and social risks inherent in the transition process.

China's carbon neutrality strategy is an effort to meaningfully contribute to global climate change mitigation. President Xi Jinping emphasized, "Achieving the 'dual carbon' goals is a wide-ranging and profound transformation; it is not something that can be easily accomplished."¹ "Just transition," while not native to China's policy discourse, resonates with socialist values. China's Long-Range Objectives Through the Year 2035 states that China's people "will lead even better lives, with more substantive advances in people's well-rounded development and common prosperity." This vision is aimed at ensuring a more widespread and equitable distribution of the benefits arising from reform and development efforts. China's policymakers also believe that a healthy natural environment is fundamental to people's well-being.²

The book is structured into three main parts. The first section delves into the policy fundamentals of a just transition in China's coal resource regions within the context of carbon neutrality and common prosperity goals. It examines the historical evolution of the concept and its interpretation, the distinct characteristics of just transition in China,

¹ Xi Jinping. Achieving the "Dual Carbon" goal is a wide-ranging and profound transformation. [EB/OL].(2022-09-23)[2022-10-25].<https://www.12371.cn/2022/09/23/ARTI1663913479551101.shtml>.

² The Central People's Government of the People's Republic of China. The Outline of the 14th Five-Year Plan for Economic and Social Development and Long-Range Objectives Through the Year 2035 of the People's Republic of China [EB/OL].(2021-03-13)[2022-10-21].https://www.gov.cn/xinwen/2021-03/13/content_5592681.htm.

and the significance, opportunities, and key focal points pertinent to coal resource regions. The middle section explores both domestic and international just transition practices. It conducts a thorough analysis of domestic case studies from various perspectives including regional, municipal, and employment dynamics. It also investigates the institutional mechanisms and policy tools employed for just transition in major regions across the globe since the *Paris Agreement*. The final section offers actionable policy recommendations aimed at expediting just transition efforts in China. Drawing on comprehensive policy analysis, the authors advocate for the implementation of tracking and evaluation indicator systems, institutional frameworks, and policy measures tailored to facilitate just transition processes.

II. Just Transition in the Context of Carbon Neutrality and Common Prosperity

Sustainable development is affecting the world's economic and social systems. The term “Just Transition” was initially proposed by North American labor activists in the 1980s, who called for job opportunities for workers in affected industries while achieving environmental protection goals. They also emphasized the fair distribution of environmental risks and the protection of the environmental health and safety of affected communities and populations.

Addressing climate change has emerged as the paramount challenge for sustainable development in the 21st century. The concept of just transition aims to achieve “climate justice” through principles rooted in “environmental justice” and “energy justice.” This approach prioritizes a people-centered perspective that ensures fairness across spatial and temporal dimensions. It underscores the shared yet differentiated global responsibilities in combatting climate change and ensuring an equitable distribution of benefits from a zero-carbon economy. At both the national and local levels, just transition emphasizes the need for tailored strategies that integrate sustainable development, job creation, poverty alleviation, and the promotion of inclusive

communities with the challenges of carbon reduction, environmental protection, and the transition to clean energy. Currently, a universally accepted definition of just transition remains elusive, leading to fragmented and diverse policy frameworks across countries and regions. Looking ahead, nations must develop customized just transition frameworks that suit their specific contexts. This approach will enable the effective integration and implementation of just transition principles, offering flexibility and adaptability to different conditions.

In the pursuit of peaking carbon dioxide emissions before 2030 and achieving carbon neutrality by 2060, known as the “dual carbon” goals, China faces varying regional, sectoral, and demographic challenges in its economic transition. With a longstanding reliance on coal in its energy structure, regions dependent on coal resources have played pivotal roles in China’s rapid industrialization and economic growth. Local coal and associated industries are integral to the economic and social fabric of these areas. Under the “dual carbon” goals, there will be a sharp decline in coal consumption, particularly impacting coal resource-dependent regions. Mismanagement of this transition could exacerbate social challenges. Therefore, prioritizing the just transition of these regions is imperative.

The vision of achieving "more substantive advances in people’s well-rounded development and common prosperity" is contained in the *Outline of the 14th Five-Year Plan for National Economic and Social Development and the Long-Range Objectives Through the Year 2035 of the People’s Republic of China*. Widening income and wealth disparities in China present challenges to both economic growth and social stability. Promoting common prosperity is fundamental to achieving high-quality economic development in China, with a crucial focus on balancing fairness and efficiency. Implementation of this vision necessitates a concerted effort to achieve balanced and coordinated development across regions, industries, and urban-rural areas. This entails enhancing social welfare systems encompassing healthcare, elderly care, housing, and minimum livelihood assistance to bolster support for vulnerable groups within a robust

fundamental service provision framework. Additionally, it is essential to reform the income distribution mechanism and strengthen employment training systems to elevate incomes among low-income demographics and expand the middle-income strata. Challenges such as uneven economic and industrial development, a significant population of low-income miners and vulnerable groups, and inadequate basic public services and social security systems are notably pronounced in regions reliant on coal resources. Therefore, China's strategy for promoting common prosperity should prioritize establishing a just transition in coal-dependent regions.

Carbon neutrality and common prosperity set China's just transition apart from other countries. A just transition strategy based on carbon neutrality is proactive and forward-thinking, with a long-proven techno-economic roadmap. It is a regulatory-driven transition which policymakers actively manage, rather than a passive transition caused by changes in socioeconomic conditions driven technology improvements and structural adjustment. The future direction and path for the change of the real economy are rather evident, such as the trend of coal being gradually replaced by renewable energy. It is also clear that the shift to carbon neutrality provides an unprecedented opportunity for technological innovation.

The goals of a just transition under common prosperity require a multifaceted and balanced approach. Beyond social security, job creation, and assisting enterprises in transitioning, there is a need for high-quality employment that also considers gender equality, social inclusion, and environmental justice. Just transition also entails spatial justice in economic development and energy inclusion. Emphasizing "greater attention to common prosperity" necessitates that just transition policies ensure the universality of public welfare, such as improving public services, establishing a comprehensive and sustainable social security system, and prioritizing employment in the pursuit of high-quality development.

III. Policies for Just Transition in Coal Resource-Dependent Regions

Policies for just transition should prioritize establishing a comprehensive governance framework focused on four key dimensions: promoting high-quality economic development, enhancing social well-being, ensuring clean and secure energy, and advancing ecological civilization. High-quality economic development entails not only expanding the overall economy but also improving its quality through structural adjustments and investment in innovation. Enhancing social well-being involves bolstering social stability and employment security to ensure equitable distribution of developmental benefits. This entails establishing and enhancing a multi-tiered social security and employment assistance system that prioritizes basic welfare, public services, healthcare, education, clean heating, employment, and infrastructure. Clean and secure energy policies must address challenges in energy supply security and climate resilience amid a complex international energy landscape. Coal-dependent regions should prioritize national energy security and capacity-building during their transition, while simultaneously increasing the share of clean energy and developing locally suitable renewable energy sources. Ecological civilization construction emphasizes enhancing energy and resource efficiency, restoring ecosystems, improving environmental quality, reducing pollutants and carbon emissions, and promoting sustainable forestry practices. These efforts aim to rectify ecological deficits in coal resource-dependent areas, foster a harmonious ecological civilization, and meet public demand for an improved natural environment.

IV. Just Transition: Domestic and International Practices

This book compiles a range of domestic and international case studies on just transition. The section on China examines the revitalization of old industrial bases in Northeast China, sustainable development strategies for resource-dependent regions, and employment placement initiatives in the coal and steel sectors during capacity reduction efforts. The international perspective explores just transition policies implemented by the European Union, United States, Canada, and other nations and international organizations in response to climate change. A comprehensive review of these practices

underscores the necessity for collaborative efforts involving diverse policy tools across various sectors and professions. In China, the focus is on addressing developmental challenges and establishing enduring policy mechanisms while international practices emphasize innovation in mechanisms, inclusive participation, and procedural fairness. It is imperative for China to define clear strategic objectives and action plans for forthcoming just transition decisions. These plans should be tailored to local conditions, with specific emphasis on employment, social security policies, and leveraging the complementary roles of government and market forces. Detailed summaries of policy measures from both domestic and international just transition practices are presented in Table 0-1.

Table 0-1 Policy Measures of Domestic and International Just Transition Practices

Case Studies		Policy Measures
Just Transition Practices in China's Resource-Dependent Regions	Revitalization of the Old Industrial Bases in Northeast China	Resource Development Compensation Mechanism • Fiscal policies • Tax policies • Financial policies Declining Industry Assistance Mechanism • Leading industry support policies • Declining industry assistance policies Supporting Policies • Environmental and ecological protection • Talent incentives • Institutional and technological innovation • Business environment
	Sustainable Development of Resource-Dependent Cities	Early Stage • Establish and improve the resource development compensation mechanism • Declining industry assistance mechanism • Fiscal transfer payments, bank special loans, and central project preference Sustainable Development Stage • Development order constraint mechanism • Product pricing mechanism • Resource development compensation mechanism • Benefit distribution sharing mechanism • Successor industry support mechanism High-Quality Development Stage • Inclusive public services • Basic livelihood security for residents • Stabilizing and promoting employment
	Employment Placement in Coal and Steel Capacity Reduction	• Employee reposition and resettlement • Employee internal retirement • Employment services • Entrepreneurship support • Offering public welfare positions and other supportive assistance

International Just Transition Cases in the Context of Climate Change	European Green Deal	• Just transition fund • Just transition platform • Initiative for coal regions in transition
	Spain's Just Transition Strategy	• Climate change act • National integrated energy and climate plan • Just transition strategy
	Colorado Just Transition Action Plan	• Community coordination • Worker employment transition • Transition funding
	The Czech RE: START Strategy	• Economic transition • Employment support
	Multilateral Just Transition Cooperation Mechanism	• Renewable energy development • Green finance directory • Mine closures • Employment and livelihood security
	Canada's Institutional Construction for Just Transition	National level: Task Force on Just Transition Regional level: Advisory Panel on Coal Community
	Funding Support	Direct fiscal support: Just Transition Fund and Sustainable Investment Plan Financial tools: European Bank for Reconstruction and Development's Just Transition Initiative and Instituto de Crédito Oficial (ICO)'s Just Transition Loans

V. Recommendations: Building a Just Transition Policy System in China

At the national level, China should institute a distinctive just transition policy framework tailored to its specific circumstances. This framework should comprise the following essential components (Figure 0-1):

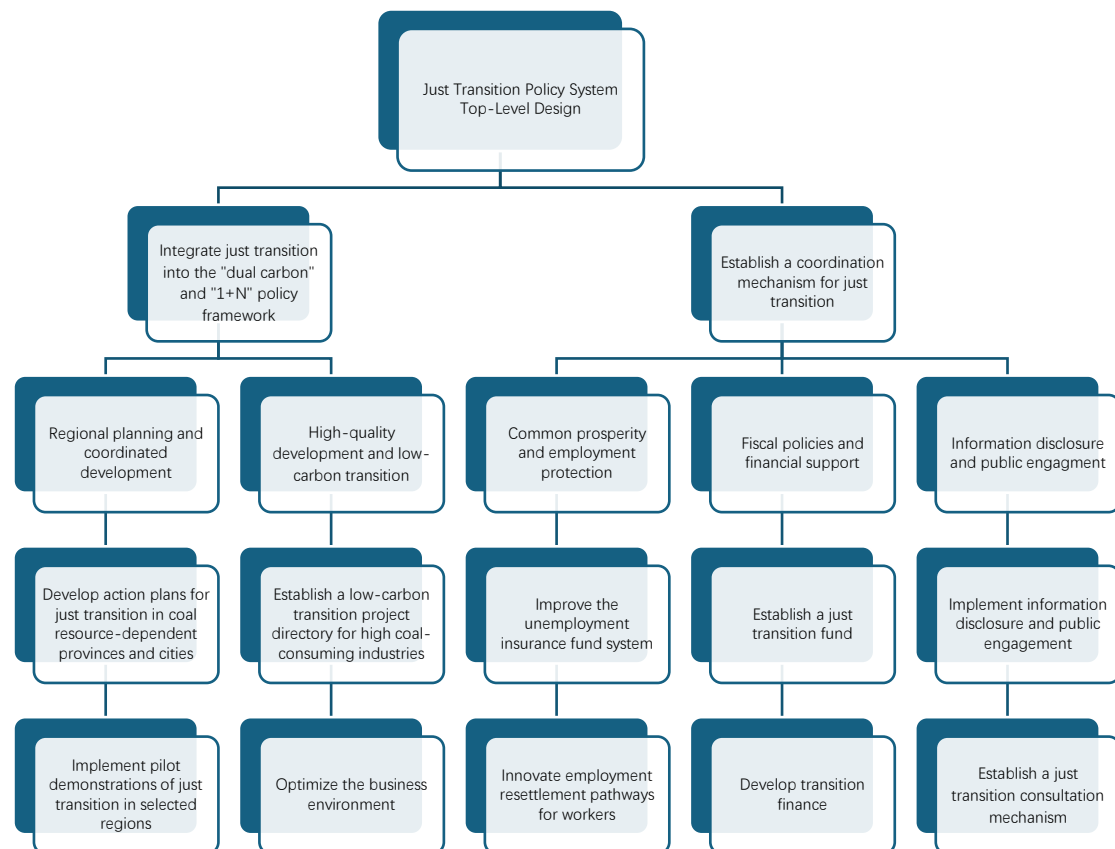


Figure 0-1: Framework of Just Transition Policy System

(1) Top-Level Design

1. Integrate Just Transition into the "Dual Carbon" and "1+N" Policy Frameworks

Accelerate legislative and planning processes to establish a comprehensive just transition policy system. Coal resource-dependent regions should initiate legislative research on just transition to delineate transition goals, stages, and pathways, and establish regulatory frameworks.

2. Establish a Coordination Mechanism for Just Transition

The Leading Group for Carbon Peaking and Carbon Neutrality should oversee and coordinate just transition initiatives, facilitating the establishment of local mechanisms to ensure equitable transition processes.

(2) Regional Planning and Coordinated Development

1. Develop Action Plans for Just Transition in Coal Resource-Dependent Regions

Coal-dependent regions should formulate medium- and long-term action plans for just transition applicable at local and industrial levels. These plans must clearly outline transition objectives, strategies, policy measures, priority areas, and safeguard measures. Moreover, regions should be required to establish just transition plans as a prerequisite for seeking transition policies and budgetary assistance from higher-level authorities.

2. Implement Just Transition Pilot Demonstrations

It is advisable to designate representative coal resource-dependent regions to implement innovative just transition pilot demonstrations. These pilot programs should propose specific regulatory requirements and corresponding policy support to achieve goals related to social welfare, ecological preservation, and the quality of industrial transition that underpin just transition efforts.

(3) High-Quality Development and Low-Carbon Transition

1. Establish a Low-Carbon Transition Project Directory for High Coal-Consuming Industries

The government should create a comprehensive directory outlining low-carbon transition projects for key industries, serving as a strategic guide and reference for allocating budgetary support.

2. Optimize the Business Environment

By optimizing the business environment, emphasis should be placed on both advancing scientific research and fostering innovation through the optimization and innovation of economic structures, business models, and technological applications.

(4) Common Prosperity and Employment Security

1. Enhance the Unemployment Insurance Fund System

The government should reduce the expenditure thresholds of the unemployment insurance fund for employee transfer and job retention, broaden the fund's expenditure scope, and devise special social security policies for enterprises in declining industries. These measures aim to alleviate social pressures on companies during market exit phases.

2. Innovate Employee Employment Placement Strategies

It is advisable for relevant government entities to establish provincial-level human resources coordination agencies for the coal industry or delegate this responsibility to provincial employment service agencies. These agencies should coordinate employee relocation efforts across regions effectively.

(5) Fiscal Policy and Financial Support

1. Establish a Just Transition Fund

The integration of the just transition fund with existing sustainable development and low-carbon development funds, guided by government finance, should be pursued with active engagement from financial institutions and social capital. Both central and local governments should allocate special funds to support the transition of the coal industry, with a specific focus on activities aimed at transitioning coal regions. A dedicated financial support framework for this transition should be established to enhance the financial system's sustained support for industries with high energy consumption over the long term.

2. Develop Transition Finance

Efforts to develop transition finance should prioritize the innovation of financial instruments aimed at mobilizing resources for a just transition. This initiative aims to foster regional economic balance, decarbonize economic activities, and promote the creation of employment opportunities in low-carbon sectors.

(6) Information Disclosure and Public Engagement

1. Implement Information Disclosure and Public Engagement

Facilitate public engagement and satisfaction and promote direct engagement of social funds in transition activities, etc.

2. Establish a Just Transition Consultation Mechanism

Establish a consultation mechanism catering to decision-makers, experts, enterprises, investors, and the public, aimed at deepening societal awareness regarding the significance of a just transition. This initiative will facilitate the identification of critical focal areas and priorities in the transition process, optimizing resource allocation to sustain long-term economic resilience within the region.

At the regional level, China is advised to designate representative coal resource-dependent areas as test sites for piloting comprehensive just transition policies, systems, and mechanisms. These pilot initiatives should prioritize the following components:

Firstly, developing a just transition action plan tailored to provinces and cities reliant on coal resources. The just transition action plan should include, but not be limited to, the following features:

- Clearly delineate transition pathways that integrate multiple objectives, such as enhancing energy security, mitigating climate change, and facilitating industrial transition and upgrading. Identify the primary regions, industries, and demographic groups that will experience adverse impacts.
- Conduct a comprehensive assessment of the socio-economic challenges posed by achieving carbon neutrality. Identify the economic activities and industrial sectors most affected, including opportunities for regional economic diversification amid industry decline and the emergence of new sectors. Address associated employment impacts and the need for retraining initiatives.
- Evaluate the alignment of the plan with pertinent national, local, and industry-level strategies, plans, and implementation frameworks.

- Assess the potential carbon reduction, employment outcomes, investment requirements, and economic growth contributions associated with various transition projects and initiatives.
- Establish a robust governance framework for just transition, incorporating coordination, organization, and a monitoring and evaluation system to ensure effective implementation and assessment.

Secondly, establish a transition roadmap for the coal industry and local economies. Seize the opportunity for national high-quality development by creating a supportive policy environment that promotes the low-carbon transition of high-carbon industries. Additionally, harness the potential of private capital and social enterprises to stimulate technological innovation and advance economic structures and business models. Examples of successful transitions in the coal industry and local economies are outlined below, drawing from both domestic and international practices, alongside trends in carbon-neutral economic transitions:

- Enhance and modernize the green and intelligent coal mining sector.
- Advance the "Three Reforms" initiative for coal-fired power units, focusing on energy efficiency improvements, heating system upgrades, and flexibility enhancements. Develop integrated coal power solutions, modern coal chemical industries, coal-based materials, and high-end equipment manufacturing.
- Foster diverse industries such as wind energy, solar photovoltaics, solar thermal energy, biomass energy, geothermal energy, pumped storage and chemical storage, hydrogen energy, fuel cells, energy conservation, environmental protection, resource recycling, ecological restoration, new energy vehicles, biomanufacturing, biopharmaceuticals, bioenergy, cultural and creative industries, as well as leisure and healthcare services.

Thirdly, establish transition finance mechanisms to facilitate the low-carbon transition of high-carbon industries. Building upon national policies supporting carbon neutrality, the government should address the immediate needs of coal-dependent regions by

developing a regional transition finance framework. This framework will delineate project requirements and specific criteria for a just transition, aiming to attract social investment. Through innovative financial instruments, the government can mobilize funds to support a just transition, foster economic diversification, decarbonize industrial activities, and create opportunities for low-carbon employment. Additionally, exploring the issuance of transition-focused bonds, such as rural revitalization bonds and poverty alleviation bonds, should be considered to further bolster these efforts.

Finally, establish regional industrial cooperation and entrepreneurship mechanisms. Introduce an "Innovation Project Investment Platform" aimed at fostering a just transition, mobilizing social resources, and revitalizing the economy. Local governments in coal-dependent regions should align with national strategies for high-quality development to identify new economic sectors, roles, and identities that leverage regional strengths.

The book represents a collaborative effort involving multiple contributors across seven chapters. Hu Min authored the preface, Li Xueyu contributed to Chapter One, Hu Min, Yang Li, and Zhang Xiaoli collaborated on Chapter Two, and Li Xueyu and Li Xindi co-authored Chapter Three. Chapter Four was authored by Zhu Tongxin, Yang Li, and Hu Min, Chapter Five by Zhang Xiaoli, Zhu Tongxin, and Hu Min, Chapter Six by Zhang Xiaoli and Li Xueyu, and Chapter Seven by Hu Min.

The coordination of the book was managed by Hu Min, Zhang Xiaoli, and Zhu Tongxin, with Wang Yanhui overseeing proofreading.

Given the authors' diverse backgrounds, there may be gaps or shortcomings in the content, and readers are encouraged to provide constructive feedback and corrections.