Chapter 8
The Causality Between the Green Development and the Food Security Agendas in China

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ABSTRACT

Despite China's impressive success in increasing domestic agricultural production in recent decades, the country has yet to ensure self-sufficiency in some food staples. Against the backdrop of the increasing volatility of climate conditions, the degradation of agricultural land, and the depletion of water resources endanger the sustainable development not only of agriculture, but also of rural communities. China's efforts in building a so-called ecological civilization involve curbing greenhouse gas emissions and prioritizing principles of green development. While converging in understanding the need to sustain development, the food security and

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the green development doctrines differ in a way that increasing the agricultural output is hardly possible without aggravating anthropogenic pressure on ecosystems. In this chapter, the authors use the example of China trying to find common ground between ensuring food security for everyone and the important task of greening the agricultural sector.

INTRODUCTION

The modern era of post-industrial development in the world economy is characterized by a coexistence of several fundamental changes in the structure of the spatial distribution of productive forces (Zakaria & Buaben, 2021; Erokhin et al., 2023). In the XX century, the countries of the Global North acted as the drivers of world economic growth, while in recent decades, the geography of centers of economic and industrial development has increasingly shifted towards the countries of Global South and East (Liu et al., 2023). Due to large-scale industrialization, countries like China, Brazil, India, and the newly industrialized countries in Southeast Asia have turned from economies that are catching up to the developed world to new centers of the global economic order (Lopatnikov & Gorbanyov, 2020). However, every success comes at a cost. Along with the global shift in the balance of economic and productive power between the Global North and the Global South, the geography of environmental problems is changing (Bellamy, 2021). Industrialization is provided by the basic industries, such as metallurgy and energy, which are the major sources of emissions of various pollutants. The aggravation of environmental problems has been associated with an increasing accumulation of environmental damage and an increase in the negative impact of environmental degradation on the health and quality of life of people around the world (Shah et al., 2023). The extensive development of mineral resources and the irrational use of natural resources in the economic process exacerbate the problem of complex pollution in all ecosystems, including air, water, soil, plants, animals, and people (Sowah & Kirikkaleli, 2022). Taking into account the reduced cost of clean technologies and the benefits derived from a comprehensive model of development and exploitation of nature, the impact of dirty industries is gradually becoming less significant when compared to the costs that fall on health, social security, and insurance systems, as well as the quality of life for people (Constantin et al., 2021).

Environmental issues are interconnected. Some of these issues are linked by a common cause, such as the burning of fossil fuels, which can lead to both local air pollution and climate change (Jiang et al., 2022). Chlorofluorocarbons, for example, are both ozone-depleting and greenhouse gases that contribute to climate change (Luo & Lin, 2022). Sometimes, one environmental issue can lead to others. For instance,