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Coal, also called "black gold," has fueled the growth and development of China and still comprises over 50 percent of the country's primary energy supply as of 2021. However, the rapid growth of China's coal-based economy has been achieved at the price of environmental and social liabilities. During the RCC Landhaus Fellowship, to complete my doctoral project, I will examine coal and environmental justice in China and the Belt and Road Initiative from the lens of political ecology. I also aim to develop part of the thesis into the manuscript of a book, "Black Gold and Yellow River," based on my research and associated fieldwork at coal frontiers across the Yellow River Basin, home to 70 percent of China's coal production.

In the past decades, the unequal distribution of the environmental, social, health, and climate impact of coal has been increasingly recognized and has manifested through a growing number of ecological distribution conflicts on the coal frontiers. These range from direct confrontation, petitions, and creative and artistic intervention to legal actions taken by civil society organizations through environmental public interest litigation (EPIL). Building upon previous studies that suggested, conceptually and empirically, that environmental and social mobilizations could form an important force for sustainability transition, and in view of China's goal to transition to a development model with a focus on ecological civilization, this book will provide an overview of coal-related (coal mining, coal-fired power plant, coking and coal chemical) environmental justice cases in China based on a comparative political ecology inquiry into the Environmental Justice Atlas (EJAtlas.org), the largest open-source online database with more than 3,600 environmental justice movements around the world, and the author's fieldwork across the Yellow River Basin in China in 2021.

Moreover, this book aims to embed the discussions in the historical background of the development of the Yellow River Basin as both the agricultural and energy backbone of China and link it with the social and material metabolism in China and the rest of the world from the lens of political ecology and ecological economics. Building on empirical insights, it demonstrates the agrarian struggles and the multidimensional inequality between rural and urban residents aggravated by the development of the coal value chain and the broader economy in China. It also contributes to the discussion of environmental activism and public participation in China's environmental governance system especially as the Chinese economy strives to achieve its "dual carbon" climate goals, namely achieving peak carbon emissions by 2030 and carbon neutrality by 2060.

Alongside the book project, I plan to build upon the experience of the EJAtlas team in featured maps and make an interactive map to demonstrate the multidimensional changes that have led to and been caused by climate change along the Yellow River through a political ecology lens, with a collection of case studies, real life stories, and reflections from the fieldwork in the form of textual and visual representations and in collaboration with local communities and NGOs interviewed during the fieldwork.