



CLIMATE CHANGE AND THE CHALLENGES OF DEVELOPMENT SERIES

Climate Change, Agrarian Transformation, and the Origins of COVID-19

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Summary

In her fascinating talk, Dr Zhang approached the emergence of COVID-19 in Wuhan and its rapid spread all over the world from a Chinese perspective. In examining the complex, structural entanglements of state making, science and technology, and economic globalization that facilitated the COVID-19 zoonotic spillover, Dr Zhan made use of her expertise in rural development and food safety failures in China. She also shed new light on the causal links between climate change and the governance of agrifood chains both in China and worldwide. Finally, she demonstrated through her analysis the methodological specificities that characterize the approach to development studies taken by the College of Humanities and Development Studies of Beijing's Agricultural University, where she gained her doctorate in 2017.

In the first part of her talk, Dr Zhang explored in greater detail China's excessive and inefficient use of synthetic fertilizers, which causes anthropogenic climate change as well as poor health outcomes for farm workers, rural communities, and urban consumers alike. China's agroindustrialization, in particular the intensification of industrialized livestock, has contributed to the depletion and pollution of soil and groundwater resources, as well as to poor standards of animal welfare and major incidents of food contamination. Industrial livestock are more likely to carry viruses dangerous to human and animal health, such as swine and avian influenza.

If China's massive agricultural production system, unwieldy bureaucracy, and geographic size pose enormous policy challenges to regulators, the dynamic interactions between the rearing and marketing of livestock and wildlife have added complexity to this situation. As food standards are not upheld, richer urban consumers choose to buy 'wild meat,' considered to be healthier, more nutritious, and more natural. In short, the same drivers of commodification that have incentivized the overuse of toxic agrochemicals and the adulteration of agri-food products have also enabled the expansion of wildlife farm industry and wildlife trade for both Traditional Chinese Medicine and food consumption. What makes China's agri-food system particularly vulnerable, therefore, is not just specialized industrialization focused on a few selected species, breeds and varieties for maximal uniformity and profitability, but also, and perhaps more significantly, the commodification of biological diversity.

Dr Zhang focused the second part of her talk more specifically on the probable origin of the COVID-19, as well as on the narratives and counter-narratives that have circulated in China and the USA.

Basing herself on her ethnographic experience in Guangxi Zhuang Autonomous Region and Henan province, she illustrated some of the emerging urban-rural dynamics that underpin causal linkages between economic development, industrialization, and the globalization of trade. In particular, she showed how scientists embarking on 'virus hunting' expeditions in bat-infested caves (these are subjected to two different types of commodification, tourism and illegal mining), may have played a crucial role in accelerating the emergence of COVID-19. As for the rapid spread of the virus, it can be explained by linking rural migration, rapid infrastructural development, the surge of e-commerce (which facilitates both smuggling and illegal farming), and the loss of natural habitats through the expansion of mining and farming.

The last part of the talk addressed issues relating to the privatization of public health in China, which, in Dr Zhang's view, explain why hospitals became hotbeds of viral contagion at the height of the pandemic. This part of the talk also explored policy choices available to Chinese authorities, which enable the proper governance of agricultural markets, food systems and public health in order to prevent future viral outbreaks or world-wide pandemics, or at least to contain them more efficiently. These policy choices were further discussed in the Q&A session that followed the talk.

We learnt from Dr Zhang how Chinese research on rurality, gender, and development makes a contribution to the country's aspiration to become an ecological civilization, a goal which also aims at just adaptation to climate change. For Dr Zhang, agricultural modernization, which has been a key national development priority in China for decades, is in need of revision, given its negative impacts on environmental, health, and socioeconomic outcomes. The school of development studies in which she was trained takes a broader, more holistic conceptualization of rural social and economic development than standard approaches that focus on productivity increases and the benefits of market-oriented reforms, or the massive outmigration of rural dwellers to the cities. As she has shown in her published work, women are becoming leaders in agricultural production initiatives, particularly for safer and organic foods to address China's ongoing food safety crisis. Rural women's leadership in rural cooperatives, local governments, universities, and alternative food networks enables the strengthening of relations of trust between producers, suppliers, consumers, and local authorities. Their 'quiet' social movement for feminism and food sovereignty addresses various forms of resistance to displacement, marginalization, and discrimination. To combat climate change and rural-urban inequality, policymakers need innovative and creative policies for rural areas, in particular policies that work in synergy with the rural movements led by 'left behind' women.