

BRASIL -CHINA INNOVATION DIALOGUE 2024. TECHNOLOGY AND DEVELOPMENT

AGRICULTURE'S TECHNOLOGICAL AND SOCIAL FRONTIERS

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China and Brazil have become the two major poles of the global agrifood system as China's explosive and vast dietary transition to animal protein consumption has depended increasingly on the mobilization of Brazil's equally vast land and water resources, together with its accumulated technical competences, to produce the animal feed and protein that China requires. For China, very high levels of trade dependence, pose continuous challenges for food security, made more pressing in times of geopolitical tensions. Furthermore, the shift to animal protein is now being accompanied by the prevalence of diet related illnesses already detected in Northern countries. In Brazil, the high input monocultures of animal feed and beef, despite important public and private initiatives to attenuate their negative externalities, are drastically reducing biodiversity, contaminating water reserves, and proving unable to prevent rhythms of deforestation which threaten crucial biomes and accelerate rather than mitigate climate change. As from the second decade of the 2000s, a convergence between big data digitalization and advances in genetics are creating perspectives for the development of alternative proteins which can become an increasingly important component of the dietary transition, which continues in China and extends to other fast urbanizing regions. While not substituting animal proteins, these alternatives can alleviate the pressure on natural resources, and promote more diversified patterns of farming, making it more realistic to achieve climate goals. They also present opportunities for the adoption of healthier dietary lifestyles. Cooperation in the research and development of alternative proteins, therefore, should be at the center of Brazil-China innovation dialogues.