

Supplementary Material

A comprehensive review on agricultural greenhouse gas emission reductions in china: opportunities and challenges

Main Text

3. Discussion

Based on the macro, meso, and micro influencing factors, we can utilize SWOT to integrate and classify them to explore the strengths, weaknesses, opportunities, and threats of agricultural emissions reduction in China.

3.3 Opportunities

3.3.1 Aligning with national development direction

As a responsible power, to achieve the "dual carbon" goals, China is dedicated to establishing a reasonable and effective low-carbon policy system, and adjusting relevant institutional arrangements for national low-carbon development.

Table 1: Policies related to GHG emission reduction in China's agriculture from 1984 to date

Phrase	Time	Policy Names
Phase I (1984-2006)	1984	Forest Protection Law of the People's Republic of China
	1998	Basic Farmland Protection Regulation
	1998	Opinions on Agricultural and Rural Work in 1998
	1993	the Agriculture Law of the People's Republic of China
	2001	the Outline of Agricultural Science and Technology Development (2001 - 2010)
	2002	the Measures for the Management of Pollution-free Agricultural Products
Phase II (2007-2016)	2007	China National Programme for Climate Changes
	2008	the Promotion of the Circular Economy of the People's Republic of China
	2011	China's Policies and Actions to Address Climate Change (2011)
	2013	the National Master Plan for the Construction of High-standard Farmland
	2014	the Regulations on the Prevention and Control of Pollution from

		Large-Scale Farming of Livestock
	2015	the Action Plan for Zero Growth in Fertilizer Use by 2020
	2015	the National Plan for the Sustainable Development of Agriculture (2015–2030)
Phase III (2016-the present)	2016	the 13th Five-Year Plan for the Control of Greenhouse Gas Emissions
	2016	the 13th Five-Year Plan for Comprehensive Work Program on Energy Conservation and Emission Reduction
	2017	the 13th Five-Year Plan for Agricultural and Rural Science and Technology Innovation
	2017	the Action Plan for Carrying out the Replacement of Chemical Fertilizers by Organic Fertilizers for Flowers, Fruits and Tea
	2017	Opinions on Innovating Institutional Mechanisms to Promote Green Agricultural Development
	2021	Opinions on Complete and Accurate Comprehensive Implementation of the New Development Concept and Doing a Good Job in Peak Carbon and Carbon Neutrality,
	2021	the Action Plan for Peak Carbon by 2030
	2021	the National Agricultural Green Development Plan for the Fourteenth Five-Year Plan
	2021	the Outline of the Forestry and Grassland Protection and Development Plan for the Fourteenth Five-Year Plan
	2022	Implementation Plan for Agricultural and Rural Carbon Reduction and Sequestration
	2022	Implementation Plan for Promoting Comprehensive Green Transformation of Agricultural Modernization Demonstration Zones in National Agricultural Green Development Pilot Areas
