

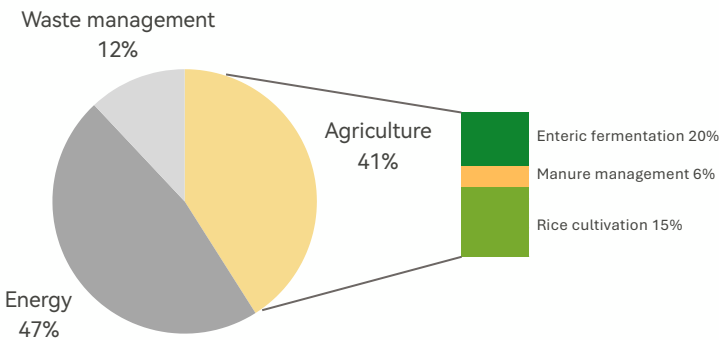
Mapping China’s Agricultural Methane Reduction: Trends and Local Actions

Agriculture: China’s Second-Largest Methane Source and A Key Area for Mitigation

Agriculture is China’s second-largest source of methane emissions, contributing 41% of the national total in 2021. Most of these emissions come from livestock farming (26%) and rice cultivation (15%).

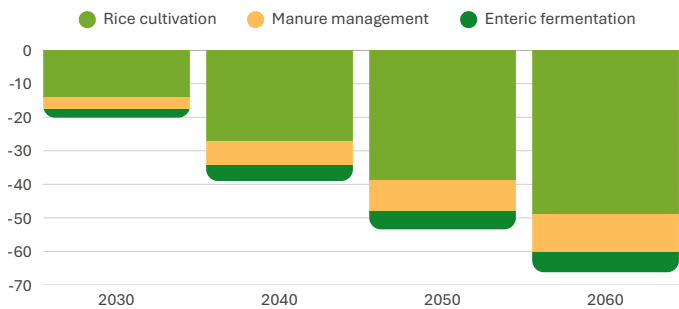
At the same time, this sector also presents a major opportunity for methane reduction. iGDP’s analysis estimates that in 2060, China could reduce agricultural methane emissions by up to 65 million tons of CO₂ equivalent through measures such as optimizing irrigation practices, scaling up high-yield, low-emission, and drought-resistant rice varieties, and expanding the use of anaerobic digestion for livestock manure management.

Figure 1a. Agriculture is China’s second-largest source of methane emissions



Source: iGDP, based on China’s First Biennial Transparency Report on Climate Change.

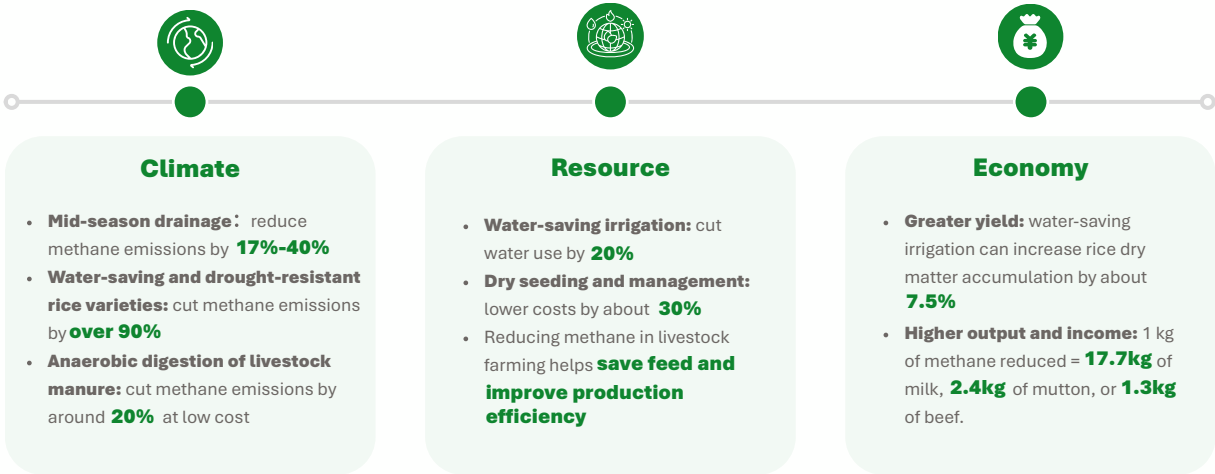
Figure 1b. Mitigation potential* for agricultural methane in China



Source: iGDP calculations.
Note: Mitigation potential refers to the “new policy scenario,” which considers policies introduced since China announced its dual-carbon goals.

A Triple Win: How Reducing Agricultural Methane in China Benefits the Climate, Resources, and the Economy

Figure 2. Multiple Benefits of Agricultural Methane Mitigation in China



Source: Tian et al, 2018; Gao et al. 2024; Zhang et al, 2024; Dong 2025; Wang et al, 2024

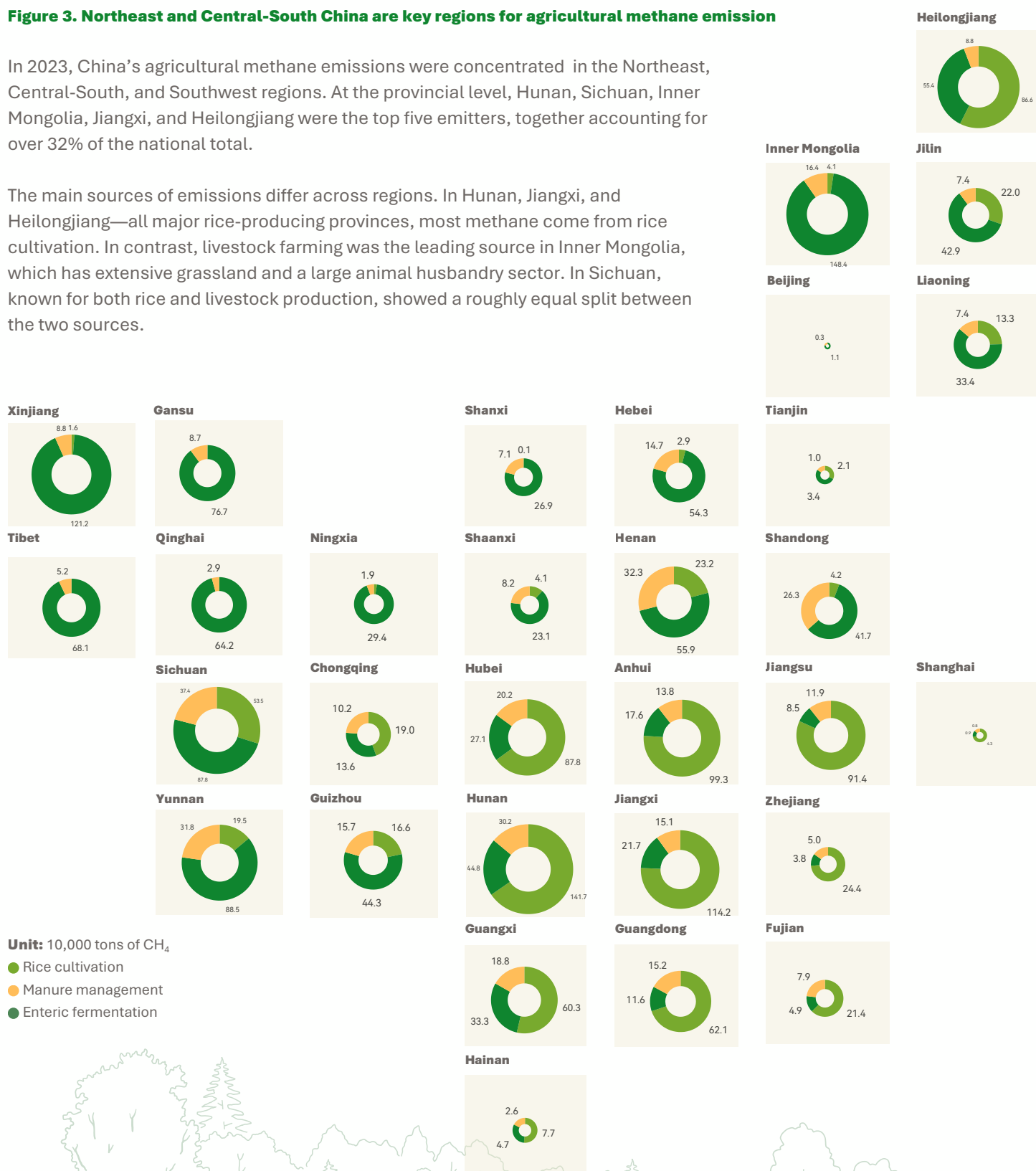


Five Provinces Contribute One-Third of China's Agricultural Methane Emissions

Figure 3. Northeast and Central-South China are key regions for agricultural methane emission

In 2023, China's agricultural methane emissions were concentrated in the Northeast, Central-South, and Southwest regions. At the provincial level, Hunan, Sichuan, Inner Mongolia, Jiangxi, and Heilongjiang were the top five emitters, together accounting for over 32% of the national total.

The main sources of emissions differ across regions. In Hunan, Jiangxi, and Heilongjiang—all major rice-producing provinces, most methane come from rice cultivation. In contrast, livestock farming was the leading source in Inner Mongolia, which has extensive grassland and a large animal husbandry sector. In Sichuan, known for both rice and livestock production, showed a roughly equal split between the two sources.



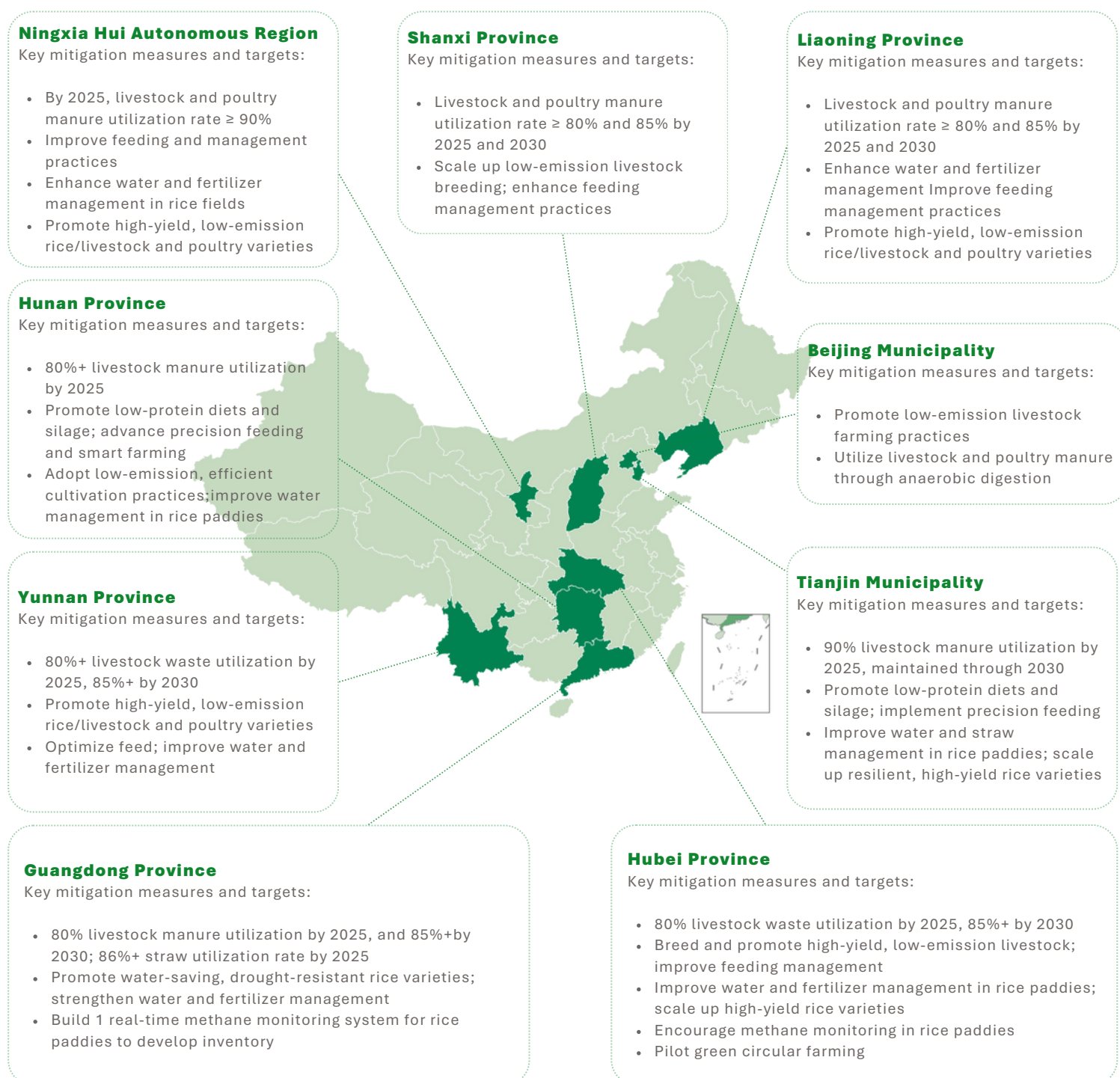
Source: iGDP calculations based on data from the China Agricultural Yearbook and the National Bureau of Statistics.

Nine Provinces Roll Out Methane Control Plans to Strengthen Agricultural Mitigation

Subnational governments in China are developing methane control policies tailored to their local emissions profiles. As of the end of October 2025, nine provincial-level regions have released their local Methane Emission Control Action Plans. Their mitigation measures, particularly in the key sectors of rice cultivation and livestock management, align closely with the national strategy.

Many provinces have established quantified targets for the management and utilization of livestock and poultry manure. Notably, Tianjin and Ningxia have set their resource utilization targets higher than the national benchmarks. Hubei Province, a major rice-producing region, has proposed a demonstration project for green and low-carbon rice cultivation to showcase best practices and accelerate the transition toward more sustainable farming.

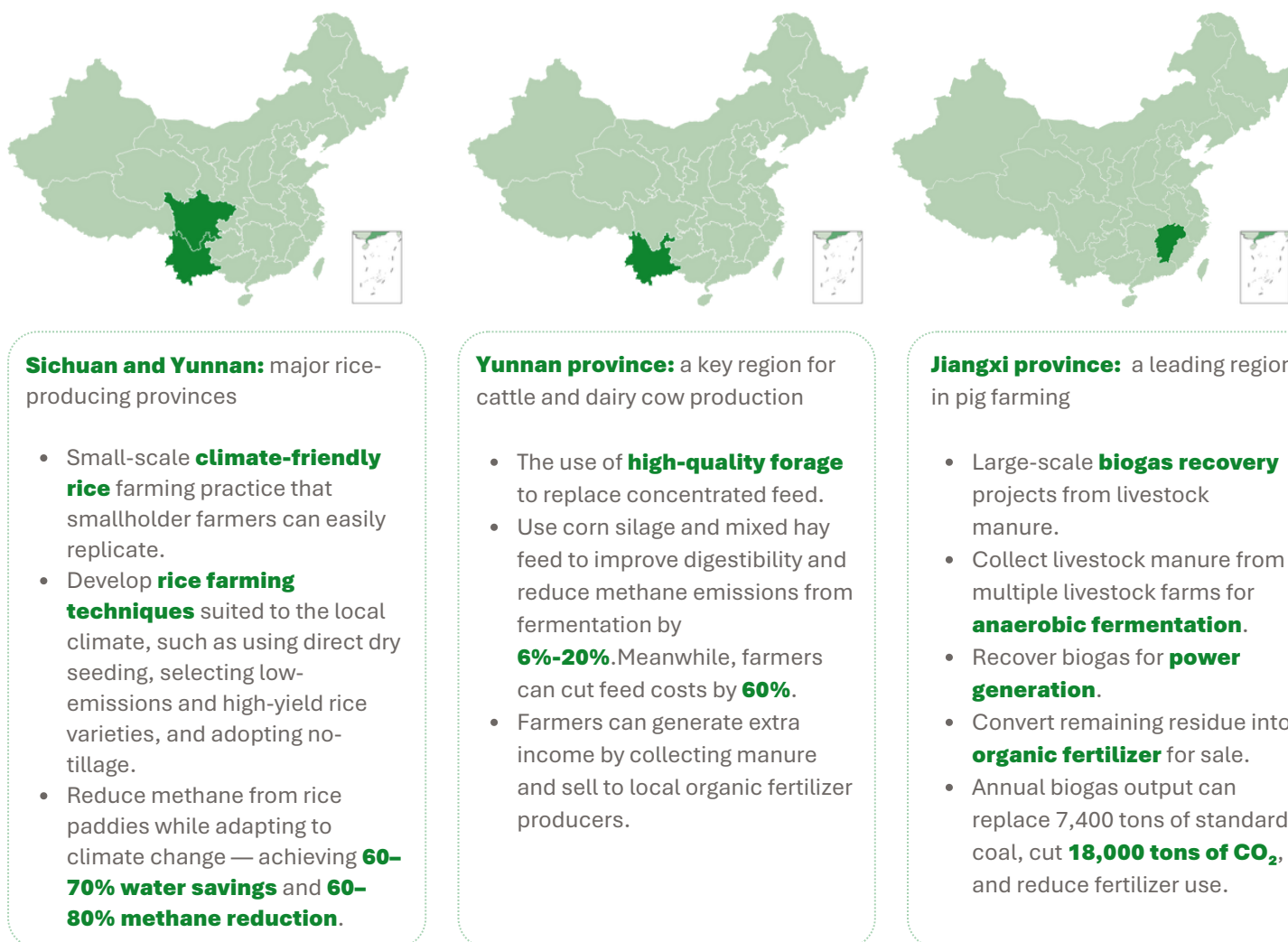
Figure 4. Nearly one-third of provinces have issued subnational methane control plans.



Local Pilots Show How Methane Mitigation Delivers Multiple Benefits

Alongside national and provincial policy planning process, iGDP is tracking promising agricultural methane mitigation practices across regions. In Sichuan and Yunnan, no-till and ridge-furrow rice planting techniques are simultaneously slashing water use and methane emissions. Furthermore, Yunnan is optimizing livestock feed for dairy cattle, which lowers farmer's costs, improves animal digestion and reduces methane from enteric fermentation. In Jiangxi, better management and use of livestock and poultry manure is supporting circular agriculture. These examples show that practical methane mitigation measures can be scaled up and deliver multiple environmental and economic benefits.

Figure 5. Emerging agricultural methane reduction practices deliver climate, economic, and social benefits



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