

1. Objectives

- 1.1. Systems-level objective:** Strengthen stakeholder engagement and institutional mechanisms for sustainable methane emission reduction in rural landscapes of India, beginning with Tamil Nadu State.

Consultative analysis and system strengthening will address evidence gaps, adapt innovation designs, and enhance institutional infrastructure to support methane emission reduction and climate resilience. This will improve the enabling environment and equip institutions and farmers to understand climate impacts, identify actions, and implement solutions at the state level.

- 1.2. Action-level objective:** Demonstrate and educate selected local administration, extension system, and farmers in implementing methane emission reduction innovations in rice production systems.

The initiative focuses on reducing methane emissions and building climate resilience through capacity-strengthening programs at the Panchayat level. Farmer Knowledge Centers (KVKs) will support methane reduction in rice farming systems via skill-building, farm demonstrations, and farmer field schools. As key institutions under ICAR and NARS, KVKs accelerate technology adoption through state extension systems. Training KVK staff will enable them to train district-level extension workers, expediting scaling efforts. A result-oriented monitoring system will track methane reduction and climate resilience progress, feeding into state and national reporting systems.