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"Competing pathways for equitable food systems transformation: Trade-offs and synergies"

Institutionalisation of agroecological principles' adoption in indian agriculture

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Abstract

Ecological intensification is a key strategy for achieving higher productivity and sustainable transformation of agri-food systems, particularly in the context of smallholder farmers in developing countries. Worldwide the basic principles focused/included in the agroecological framework of agriculture are; Recycling; input reduction; soil health; animal health; biodiversity; synergy; economic diversification; co-creation of knowledge; social values and diets; fairness; connectivity; land and natural resource governance; participation. The focus on the above said parameters can generally facilitate in establishing a sustainable agricultural system that can be adopted by all small holding farmers in their farming practices.

One such example for Institutionalisation of agro-ecological systems in present day context and within my present scope of work is - Community Based Natural Farming (APCNF) project of Andhra Pradesh . It is a promising approach that integrates ecological principles with social and economic objectives. To tackle questions of scalability and broader impacts, it is important to understand the strategies of ecological intensification that can be applied, focusing on three key dimensions: biodiversity, soil health, and social empowerment. Based on a review of existing literature, case studies and field observations, we identify several promising practices and innovations that can enhance the ecological and social resilience of agri-food systems in Andhra Pradesh, including crop diversification, agroforestry, conservation agriculture, integrated pest management, soil conservation and regeneration, scaling of innovation, and participatory approaches to learning and decision-making. We argue that these strategies need to be complemented by policies and institutional arrangements that promote supportive and enabling environments for CBNF, such as investments in research and extension, access to credit and markets, and community-led governance mechanisms.

The institutionalisation and adoption of ecological intensification strategies can contribute to the sustainable transformation of agri-food systems in Indian context and beyond, but alarms for a more interdisciplinary researchers, stakeholders and collaboration among different actors to support this sustainable transformation.

Keywords: Agri-food system, Andhra Pradesh, Community based, natural Farming