

RESEARCH DIRECTIONS

Improving livelihoods on the east India plateau

Professor Bill Bellotti, of the School of Science and Health, is leading an research team that will build on a partnership between Australia and India for a major international collaboration that aims to improve the livelihoods of farmers by developing innovative cropping systems in the uplands of the east India plateau. This project is being supported by the Australian Centre for International Agricultural Research (ACIAR) and the Australian Agency for International Development (AusAID).

'The east India plateau is characterised by endemic poverty, food insecurity, comparatively low agricultural productivity, lack of irrigation infrastructure and civil unrest,' says Professor Bellotti. 'Rice is the staple food crop and traditional cropping is typically mono-crop rice production. This means that the crop experiences high climate-related risk and is particularly vulnerable to subtle changes in rainfall distribution associated with climate variability and change. Population pressures have pushed rice cultivation onto the medium uplands, but this area is poorly suited to traditional paddy rice production systems. The ultimate goal of this project is to develop ways to improve the living standards of 228,000 rural families across 5 states in the eastern plateau region of India by introducing new cropping systems.'

The team is undertaking an integrated research and development project covering water, soils, crops and livestock. Understanding climate variability and how to utilise all available water resources will be the key to taking advantage of opportunities and managing risks in new, more intensive cropping systems during a period of climate change. Any new cropping system will retain rice as a staple food crop, but in the medium uplands the type of rice that is used should enable the additional introduction of a range of vegetable crops.



Encouraging a variety of crops will generate cash incomes and result in improved diet and health outcomes for these communities. This improvement in household income will also lead to reduced seasonal migration. The project will increase food security and self-sufficiency and provide farmers with greater knowledge and confidence in sustainable land management.

Project Title: Improving livelihoods with innovative cropping systems on the east India plateau

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International Collaborating Institutions:

Indian Council of Agricultural Research (ICAR); Professional Assistance for Development Action (PRADAN); The World Vegetable Centre (AVRDC); Advanced Centre for Water Resources Development and Management (ACWADAM)