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## Improving livelihoods in rural India and Bangladesh

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This paper presents an overview of work done (and still underway) in West Bengal, Andhra Pradesh and Bangladesh through a series of projects spanning from 2005 to the present, considering the impact of farming systems, water shed development and agricultural intensification. The projects have been undertaken at a range of scales spanning from the village scale ( $\sim$ 100 hectares) to the meso-scale ( $\sim$ 10000 hectares), and considered social as well as biophysical aspects, and focus on the food and water part of the food-water-energy nexus. These projects are in collaboration with a range of organisations in India and Bangladesh, including NGOs, universities, and government research organisations and departments. The projects are part funded by the Australian Centre for International Agricultural Research, and build on other projects that have been undertaken within the region.

The aim of these projects was to understand the role of hydrology and agricultural systems in the livelihoods of marginal groups. This includes assessing the availability of water, and identifying potential water resources that have not been developed; understanding current agricultural systems and investigating ways of improving (e.g. better access to water, improved use of fertilizers and weed control) or extending these (e.g. through use of alternate crops); understanding social impacts / limiting factors of watershed development and agricultural intensification (e.g. through use of participatory research and surveys).