

NPM as a means of enhancing Rural Innovation Capacity

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Abstract

This paper explores questions about the nature of rural innovation capacity. It argues that the notion of capacity involves two elements: the first is the patterns of partnership between scientific, developmental organizations and poor farmers and the way this can lead to collective investigation and design of location specific technologies and agricultural practices. The second element of this capacity is the new skills and insights that farmers, NGO and scientists get from each other when they interact through partnerships. An other aspect that this paper stresses is that increasingly what is required is not generic technical solutions to agricultural problems, but instead local capacities to identify problems and develop solutions. The corollary being that this does not mean that farmers can solve all their own problems. Rather that by embedding farmers in a network of supportive partnership they can draw knowledge for others, and combine this with their own and generate innovations in farm practice. The most important implication for policy of this observation is that common ways of promoting innovation in farm practice such as technology transfer need to be supplemented by approaches which focus on developing rural innovation capacity in this more holistic sense. The paper illustrates these arguments through a case study of pest management practices in the India state of Andhra Pradesh (AP), India and draws from these some of the wider implications for policy.

Role of partnerships in pest management in Andra Pradesh

Partnerships between actors with complementary strengths in agriculture have come to play an important role in designing pest control strategies in AP since the 1980s. The trigger for engaging in partnerships was an outbreak of Red Hairy Caterpillar (RHC) in castor beans – a crop grown in the rain fed areas. This resulted in extensive crop damage.. Working in a partnership of organizations with diverse strengths – research organizations, NGO's, farmers groups -- allowed the RHC outbreak to be successfully controlled. This lead to the realization that no one organization can single handedly solve complex problems of farmers. Building on the experience of RHC control, a series of different partnerships have emerged in AP around the development and use of alternative pest management approaches. This paper presents the case of one of these more recent partnership based initiatives -- an NGO led Non Pesticide Management (NPM) initiative and a poverty alleviation programme, Velugu and its efforts to upscale the NPM initiative

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NPM

The NPM initiative is led by the Centre for Sustainable Agriculture (CSA), an NGO based in Hyderabad which emphasizes the value of farmers' knowledge and use of local

resources for pest control – an innovation in itself in terms of using existing resources for newer purposes/uses. CSA justifies the need for NPM approaches by critiquing the Green Revolution (GR) paradigm and asking the question: ‘why do we need to use chemical pesticides now when they have not been used fifty years ago?’ CSA’s NPM initiative starts from understanding life cycle of pest in question and its behavior under different climatic conditions. For promoting NPM, CSA works in partnership with several field based NGOs and farmers in different districts of the state. Having understood the life cycle and behavior of crop pest, CSA then builds capacities of the farmers. It does this through training programs both to the NGO staff and also village volunteers who interact with farmers. Through training programs and interaction with farmers, CSA attempts to integrate scientific knowledge and local knowledge available with farmers thereby building collective capacities to devise pest management solutions. Farmers have had their technical knowledge upgraded in this process. At the same time CSA also learns from experiences of farmers by incorporating practices that the farmers have found useful (in other words innovated) into their NPM module.

A notable feature of CSA’s work on NPM was to declare Punukula (a tribal village in Andhra Pradesh) a pesticide free. A number of the local partner NGO’s implementing NPM also began to have success with the approach. Subsequently, some of these NGO persuaded Veleugu, the state sponsored poverty elimination programme, to upscale NPM in 10 target districts – an area of about 0.2 million hectares. However, whereas the CSA approach to NPM had concentrated on building partnerships and facilitating local experientiation and learning, the scaling up of NPM by Velugu focused almost exclusively on transferring a package of technical options. Much less importance was given to the partnership and process related elements of the NPM which lead to the emergence of locally suit pest management approach in Punukula.

This is not to say that Velugu does not partner with organizations – it works closely with the already existing network of women’s self help groups. However it partners with organisations so that it can transfer the NPM technological options, rather than partnering with organisations for joint learning and capacity development activities which were actually at the heart of the CSA approach in Punukula.

One of the crucial policy implications of this is that while attempting to scale up ‘successful’ initiatives, agencies (be it government departments or any other actors) involved in the process need to recognize importance of building and strengthening partnerships and draw from each others’ knowledge base. To make the same point differently cases such as the NPM approach mark a distinct break from the past where by technologies were developed (usually by researchers, but also by farmers) and then transferred to farmers. This case illustrates that creating farm level innovation is as much to do with creating the capacity to innovate as it is to do with invention and technology transfer. Furthermore this case illustrates that this capacity to innovate is as much about the linkages and relationships between farmers and other sources of knowledge as it is about specific skills and information held by competent, but isolated actors. If policy

wants to mobilize knowledge for poverty reduction in rural areas it needs to give much more attention to learning lessons on how to development these capacities and try and wean its self off its current fixation with transferring technical fixes to unsuspecting poor farmers.