

RURAL INNOVATIONS @GRASSROOTS – Mining The Minds Of Masses

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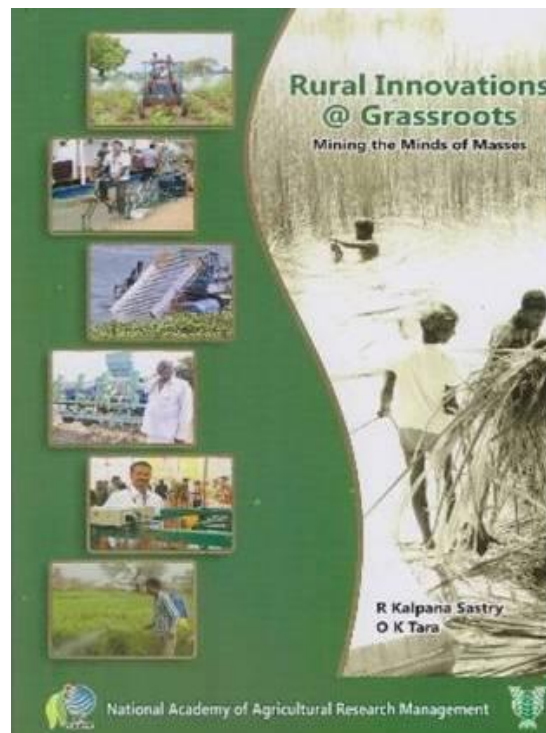


Introduction

A silent, but vibrant informal system of innovation exists in parallel to the formal system of innovation in academic and R & D institutions. As the authors indicate, innovations are emerging at the rural grassroots level and the out-of-box thinking and creativity of rural innovators is now increasingly recognised. Most of the innovations in the informal system are based on real life experiences and these are aimed at addressing the challenges faced by rural communities in their daily lives. But many of these innovations do not get diffused due to a number of factors. Promotion of these innovations generated at the local level is however necessary for enhancing technology generation advancement of entrepreneurship in the country.

Grassroots innovations

According to the authors, “the grass root innovations (GRIs) are basically ingenious solutions developed locally to address the system challenges in the long run for improving rural livelihoods and promoting sustainability.” In the introductory chapter, the authors highlight the importance of GRIs in the rural landscape wherein the process of idea translation to a product or service for local use takes place. Some of the organisations which work with GRIs in the field of agriculture and rural activities are also presented in the introductory chapter. The book has been written to create awareness about GRIs and voice the need for an institutional process to be put in place. The authors through this publication also suggest various models to connect all players inside and outside the rural realm for creating sustainable rural livelihoods.



From ideas to enterprises

The book traces the efforts of 13 innovators, who were shortlisted and selected for detailed analysis of their innovation ecosystem. The common thread of all these cases is the individual drive of the innovator to find a solution to address the problems faced by the community around each. All the innovations covered in this publication are either models or prototypes derived from existing technologies. Most of these are at the proof-of-concept or at the initial stages of innovation process. These innovators need more support and mentoring from outside agencies for commercialization and developing workable business models from their innovations.

Well documented cases

The authors have made detailed documentation of how ideas have progressed into product or service. For instance, Guravaiah developed the “seed dispenser cum herbi sprayer” through modifying the machine five times in a short span of three months. Similarly, Narasimha developed “water hyacinth cutting machine” through new conceptualizations and customizing of the machine to suit the practical needs of the users. This machine could be customized according to the nature of the water body and it has tremendous potential for up-scaling.

Mallesham developed the “Asu machine” used in dyeing clothes, through several iterations. He worked on electric and electronic assemblies replacing the mechanical ones used in the first version, and later incorporated embedded technology into the electronic control. In the latest version, he could successfully integrate a micro controller, programmed in lower assembly language to achieve multiple designs. This high impact innovation in weaving has enormously helped in reviving the dyeing tradition of Pochampally saree weaving. Similarly Subhani developed the “boom sprayer” through a series of iterations and modifications over the years. He also developed a business model of leasing this machine. All these four cases mentioned above were documented by students from the Indian Institute of Technology, Kharagpur who were doing their internship at NAARM, Hyderabad.

Rathore developed the “cycle driven irrigation pump” based on his experience with cycle repairing. This relatively low end innovation has attained high value and application in remote villages for irrigating fields and lifting water for domestic use, etc. Prajapathi’s ‘mitti cool’ and “non-stick tava” provided alternative to the available refrigerator and tava. Grassroots Innovation Augmentation Network (GIAN) facilitated design improvement of ‘mitti cool’ through the National Institute of Design (NID) Ahmedabad and also supported funding for testing the non-stick tava at the Institute of Chemical Technology, University of Mumbai. GIAN also assisted in setting up a company and in the development of an on-line portal.

The effort of a rural woman innovator (Santosh Pachar) to develop improved variety of carrot through ‘root to seed’ method is another case which is included in the publication. Morarka Foundation and the Honeybee Network served as catalysts and provided technical backstopping to the evolutions of this innovation. Nagabhushanam developed a feasible rural livelihood option through his innovation of “mobile-gase operated-oven” for door to door delivery of freshly baked products. Since 2012, he has sold over 50 pieces of his oven models. Support from scientists of KVK (CTRI, Kalvacherla) and NAARM and mentoring by a voluntary organisation *Palle Srujana* motivated him to become a successful entrepreneur.

Mallesh, a serial innovator, has designed a number of electric and electronic gadgets. His “solar agricultural sprayer” has provided a cheap and affordable green solution that reduces use of conventional fuel. Another case in the publication relates to “solar cotton harvester” which is more user friendly, light in weight, ensure lesser fuel consumption and enhance high rate of clean cotton collection. The innovator has developed different versions of this machine as part of an iterative process and he presented these at various exhibitions which provided him opportunities to get feedback from the farmers and other users and this feedback helped him to improve his models.

Of the 13 innovations discussed in this publication, nine were related to machines or devices. The rest of the four cases focussed on services in terms of organic agriculture, herbal medicines and traditional food. But these four cases didn’t receive a fair treatment in terms of detailed description which is a limitation of this publication.

Way Forward

The chapter ‘The Way Forward’ summarises the feature of the 13 cases presented in the publication and their impacts on rural livelihoods. The cases highlight the need for a support system which can

play a significant role through provision of technical guidance and support networking with relevant agencies for standardization, up-scaling and commercialization. As the authors rightly point out, ‘a plea for an institutionalized approach for fostering GRIs emerged in very clear terms through these case studies’.

Why we need more such books?

This book is a more than welcome contribution to the study of grass roots innovations relevant for rural development. There is a need to have more publications of similar nature to explore the process of development of grassroots level innovations. The authors deserve credit for bringing out a timely publication which can serve as an eye opener for extension agencies and other stakeholders to identify, recognise and support such similar innovators. However, a chapter on the “role of support and service system for rural innovators” could have added more value to this publication.

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