

Educational Institutional Approach for Rural Development through Distance Learning: The Experience of University of Technology in Papua New Guinea.

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ABSTRACT

Papua New Guinea University of Technology (PNG Unitech) has developed an educational institutional model for technology transfer and rural development suitable for the island countries of South Pacific. The programs are being operated by the South Pacific Institute for Sustainable Agriculture and Rural development (SPISARD) attached with the Department of Agriculture of the university. The model has been tested in PNG villages for the last 5 years and its results are encouraging. The Department of Agriculture, PNG Unitech has started this program since 2003 and by now seven villages in four provinces has been covered. Island countries being isolated cannot run rural development programs like other mainland countries of Asia. The program has been running in collaboration with GOs and NGOs and local farmer's organizations. Farmers are the most important stakeholders and they have established resource center in each village by themselves.

The mode of delivery of messages in this program is two folds: One is personal contact and the other is distance mode using the Department of Distance Learning (DODL) facilities of the University. However most farmers and the farming family in the villages are educated through the village level training centers on regular basis with the messages and also a follow up visits by the Unitech staff on particular dates fixed earlier. The distance-learning mode is cost effective and more of self-learning than the traditional system of extension delivery system.

Four main important programs of this model are: Capacity building, research, training and technology transfer. The students and teachers of the university are involved in all the programs in collaboration with other internal and external agencies. The program is cost effective and sustainable as the existing facilities and the resources of the university are being utilized. The outputs of the program are used as inputs in teaching and research of the university. The existing institutions of the farming and rural communities plays the vital role to implement the activities being facilitated by SPISARD. The other local educational institutes such as schools, colleges and similar other institutions as churches have also been involved. By now 4 secondary schools have been involved in the program.

BACKGROUND

Papua New Guinea (PNG) has 85 percent of her population live in the rural village communities. The livelihood of these people is dependent on agriculture. Due to rapid modernization, the rural people face new and increasing demands to support their livelihood. These demands cannot, however, be met from their traditional production systems and practices. Essentially then, the rural sector needs to be modernized in order that their livelihood is sustainable and enhanced in quality. The core system to be improved is the farming systems practiced to enhance productivity to secure increased income, better nutrition and food security.

The PNG University of Technology (Unitech) has mandatory access to teaching, research and extension education. As a part of the university's outreach function, the Department of Agriculture of the university has developed a model called "The Model Village Approach", which is uniquely different, and it is aimed at, understanding the farming systems practiced. This development is an outcome of the absence of a unified and cohesive approach to enhance productivity of the

agricultural systems practiced holistically to improve income, nutrition and food security through open distance learning (ODL) and face to face contact. Given this development, the Agriculture Department of the university has established the “South Pacific Institute of Sustainable Agriculture and Rural Development (SPISARD)” a centre through which the model village concept will be coordinated and enhanced for sustained development of agriculture and rural development. SPISARD’s model village approach has strategically incorporated teaching through open distance learning mode, research and technology transfer functions, which are not only targeted to improve the farming systems practiced but also develop extension models for effective rural extension.

CONTEXT

Agricultural extension system based on technology transfer from top down does not adequately address the need of diversified farming community. Even extension agent to farmer ratio is low compared to developed nations. With globalisation, coupled with inadequate extension system, demands for context specific extension services are increasing.

This demand requires alternative methods for information and knowledge dissemination and ensuring participation of learning communities in the design and delivery of programs through ODL and direct approach by staff and students of the university through model village approach. Small and marginal farmers comprised the target community. Technical assistance and some degree of participatory approach was central in the community self-examination, community analysis, needs and issues identification, develop program and action plan, implementation and monitoring, and evaluation of the process. Database development on location-specific knowledge and material development emerged as the focus. Evidences of activities will be produced while presenting the paper in the conferences.

The paper reports experiences and lessons learned in the use of improved approach, based on open distance learning concept and personal contact, farmers training, capacity building and community based research through model village approached is presented for overcoming the challenges in extension and to facilitate horizontal transfer of information and knowledge as the way forward in a sustainable manner as experienced by the PNG University of Technology.

RATIONALE OF OPEN LEARNING IN EDUCATING RURAL COMMUNITY

The rise of different means of disseminating information and virtual providers present an exciting new paradigm for extension. Most of the initiatives have been short term pilots or donor-supported and many have not been institutionalized or sustainable once funding has ceased. Most have taken the form of information or communication systems rather than open and distance learning systems. There is enormous need to create an open or virtual learning extension network with resource centres and advisory services provided from multiple sources that allow extension workers and smallholders or marginal farmers to access information and training on demand.

Therefore the model village approach through SPISARD plays a vital role in its current programs and disseminating information and technology transfer through open learning as it provides an opportunity to build learning communities by taking knowledge to the doorstep of the farmers (learners). As we all know distance learning is a broader concept however the context of model village approach initiates distance learning with most appropriate, cost-effective and sustainable way to address the educational needs of communities based on the six-point step strategy for the development of sustainable agriculture and rural development in PNG.

STEPS TO THE DEVELOPMENT OF MODEL VILLAGES

SPISARD as a centre is established in the Department of Agriculture, PNG University of Technology. This centre coordinates the activities of the model village programs and linkages. The key to the development of the farming systems is establishing and coordinating linkages,

collaboration, and developing partnerships both within and external institutions, organizations and agencies.

Given the above linkages, SPISARD has a six-point step strategy for the development of sustainable agriculture and rural development. These steps are (i) establish contact and identify model villages, (ii) development of model village resource centres for research and trainings, (iii) conduct baseline surveys to identify problems/needs of model villages, (iv) development of solution strategies, (v) implementation and monitoring (vi) and evaluation of impact for sustainable food security and nutrition.

APPROACH

The basic approach to sustainable agriculture and rural development in our model villages we took was “technical assistance” based. This was a form of “top down” approach as programs were designed by the SPISARD working committee on need based and were delivered to the community by staff of the university. For example, we run training based on problems/needs of the model villages, demonstrate new agricultural practices, public education programs and research.

In this approach it was noted that; (i) farmers follow rational self-interest as they would adopt change if it was rationally justified, (ii) community change is brought about by information, and most farmers lack information or have incorrect information. Therefore, “model village” approach through SPISARD provided appropriate information and transfer of technology on improved farming practices in form of training, field day, farm demonstration and research, (iii) community issues were largely technical, therefore the university staff and our collaborators both within and external institutions solve most of farmers’ problems, (iv) some of the problems and solutions are clear, as causes and solutions exist “out there” and are and will be discovered by more research, (v) although knowledge disseminates in open learning mode, technology is transferred both vertically and horizontally in multiple modes.

FUTURE TREND

The following are the way forward

- Although the approach by SPISARD in the model villages was “education” and “technical assistance” based, it should also consider community- orientation approach. As community – orientation is development **of** the community. The farmers themselves would initiate and manage planned intervention in their own community with minimal input from the staff of the university (outside experts). It would involve a process of community empowerment, where farmers and their family would identify their needs based on baseline information facilitated by staff and students of the university, and they themselves would make collective decisions and take actions.
In this approach it is assumed that; (i) people will support what they create, as people are interested in their community and want to participate, (ii) the university facilitate a process where farmers themselves explore alternatives and organise for action, as authority is with locals (farmers), (iii) problems are primarily social and cultural, as information alone will not bring about social change, (iv) indigenous knowledge is as important as “expert” knowledge, many causes and solutions exist within the community, (v) however, problems and solutions they may identify may not be clear as learning is needed to understand and address real causes.
- Open and distance learning being more cost-effective attempts are being made to improve the quality and quantity of messages and technology delivery right to the village community using the locally available institutions

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