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SUPERVISED ENTERPRISE PROJECTS AS A COMMUNITY DEVELOPMENT TOOL

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Introduction

The big challenge in the 21st century is how to accelerate the development of rural communities in sub-Saharan Africa. The meanings of and approaches to community development have varied over time because of social, political and economic factors in developing countries, as well as global economic trends and opportunities provided by donors for development. Community development strategies target an improvement in living standards of people (Mellor, 1970); empowerment of individuals and groups of people to participate and effect their own change in communities (Christenson, 1989); improvement in infrastructure, health and human resource development through the provision of appropriate knowledge and skills in agriculture; reduction in poverty; improved food security; and sustainable management of natural resources (Stiglitz, 1998). Virtually all countries and donors agree on the need for higher educational institutions to contribute to development. Rivera (2006) said that the ultimate goal of agricultural education and training should be to promote human advancement through increased agricultural contributions to the economy with emphasis on applying knowledge via teaching and research to meet the needs of production, agricultural export and domestic consumption within a highly competitive world trade environment.

This case study looks at the use of supervised enterprise projects (SEPs), a community development tool and core component of the Sasakawa Africa Fund for Extension Education (SAFE) degree course.

History and Background

Human resource development in agriculture is a key component of the programs of Sasakawa Africa Association (SAA), which have engaged thousands of frontline extension workers and millions of farmers in 14 sub-Saharan Africa countries to promote the use of higher yielding technologies

for maize, wheat, rice, grain legumes, roots and tubers, and other important crops (Feed the Future, 2010). To enhance the development of communities, the Sasakawa Africa Fund for Extension Education (SAFE) has been at the forefront of promulgating SAA programs in human development through agricultural extension curricula revitalization in collaboration with selected African universities and colleges, ministries of agriculture and Winrock International Institute for Agricultural Development (a U.S.-based NGO).

Before the development of the SAFE premier curriculum at the University of Cape Coast in Ghana in 1991, the majority of the agricultural extension workers in ministries of agriculture, private agencies and NGOs in sub-Saharan Africa did not have exposure to the important human side of agriculture, including communication, rural sociology, problem-solving and critical thinking skills, and the capacity to work as a team. Moreover, the training of extension workers did not reflect the kinds of tasks typically engaged in by extension staff members in their real work environment. Therefore, there was a discrepancy between the training and the required functioning of extension staff members (Zinnah Naibakelao 1999; Van Crowder, Lindley, Bruening, and Doron, 1999). To address this challenge, supervised enterprise projects (SEPs) were adopted as the core element of SAFE programs. SEPs represent a creative response to the fit between the preparation of extension professionals and the real needs of rural communities (Kroma, 2003). SAFE has supported 15 programs in universities and agricultural colleges in nine countries in Africa. Each program facilitates the implementation of 20 to 40 SEPs per annum.

The practice of supervised enterprise projects

SEPs are practical agricultural activities of educational value formulated by mid-career students under the guidance of lecturers and employers with active participation by beneficiaries. Projects are implemented to improve professionalism of students and livelihoods of beneficiaries

through mobilization of resources and creation of linkages with appropriate institutions and evaluative schemes over a five- to eight-month period. The philosophical basis of SEPs is experiential learning – the combination of theory, experience and critical reflection. Experiential learning provides learners with the opportunity to develop lifelong learning skills and builds on the confidence and commitment of learners so that they can work with other individuals in participatory ways (Carr and Kemmis, 1986; Kolb, 1984). Each SEP has production or development, and a learning or research objective. The production objective addresses the benefits of projects -- improvement in yields, quality and reduction in postharvest losses -- to beneficiaries (farmers). The learning or research objective addresses opportunities for learning by students as they improve the situation that they are dealing with. The learning objective is often in the form of mini-action research as a way of accomplishing a production objective. The learning objectives could be to understand the effectiveness of the various extension or training methods and approaches used.

SEPs have three distinct but interdependent phases: planning, implementation and evaluation (Annor-Frempong and Akuamoah-Boateng, 2002). The planning phase enables students to undertake courses that are relevant for conceptualizing, planning, implementing and evaluating SEPs; conduct needs assessment with the involvement of beneficiaries of the project and major stakeholders; and develop a successful proposal under the guidance of assigned lecturers and other resource persons. Various methods that provoke critical thinking -- skills such as term paper writing, seminars, end-of-semester examinations, peer group discussion and practical sessions (experimentation) -- are used to facilitate the planning phase. The implementation or fieldwork phase enables students to interact directly with farmers, apply academic subject matter and appropriate technology to solve problems, and gather information from real-life situations in the field to improve on the classroom instructional component of the program. The evaluation phase ensures that university professionals, employers of students and students compare ideas expressed in the proposal and field observations so as to offer appropriate solutions and also to tap into the indigenous knowledge of the farmers on various agricultural practices to improve SEPs. Students are given the opportunity to share their experiences with their peers.

The Contribution of SEPs to Community Development

The SEPs play a very useful role in the overall development of extension agents and farmers in many communities in sub-Saharan Africa.

Human resources for community development

The SEPs are designed so that people (students and farmers) develop their full potential to use their knowledge, skills,

competencies, preferences and talents to shape development. Firstly, the mid-career staff members of several governments and private extension organizations get the opportunity to achieve their core mandate of identifying problems of farmers and exploring practical ways to correct them. SEPs immerse students in valuable farmer-focused, experience-based learning activities during training to develop the knowledge, skills and change in attitude to work in the future. Secondly, farmers and other beneficiaries acquire knowledge and skills and better their standard of living through the access to information and technical assistance provided by students and supervisors through SEPs.

Empowerment of beneficiaries

SEP processes ensure the effective participation of beneficiaries, mainly farmers, in the planning, implementation and evaluation of the projects that affect them. Involving communities in decision making leads to better decisions that are more appropriate and sustainable with reduced risk of failure and cost (Breuer, 1999).



Picture 1. Farmers in a decision making meeting with SEP students at a community in northern Ghana.

Technology transfer

Experiences with SEP implementation have shown that solutions to identified problems go with introduction of appropriate technology such as improved varieties of crops and breeds of livestock, and soil improvement, postharvest, value addition, packaging and environmental conservation technologies. SEPs thus influence the innovation decision-making process in a direction desirable to the beneficiaries.

The Bobo Dioulasso Region is a food basket of Burkina Faso. Farmers in this region grow a lot of maize because it is a staple food for the people of Burkina Faso. Use of local seeds kept yields of maize low. The SEP of Osumane Sawadogo promoted the adoption of the improved Obatampa, maize variety in the Bobo Dioulasso Region. "Obatampa", which means "good mother", was developed by the Crop Research Institute of Ghana. Obatampa is noted for its high yield and valuable protein qualities. The adoption of Obatampa is good for improving not only crop yield but also the nutritional status of farm family members

Mobilization of resources for community development

Students are encouraged to mobilize resources such as transport, equipment, seeds and fuel from the community and development partners. District assemblies, NGOs and philanthropists from the areas where projects are implemented have sponsored proposals. Participation in SEPs thus helps target resources effectively and efficiently to enhance the total development of the beneficiaries.

Creation of linkages for community development

The SEPs link farmers, lecturers, employers and other stakeholders in identifying and solving real-life problems. The government employees from the Ministry of Food and Agriculture in Ghana (MoFA), research institutes and others provide technical assistance in the implementation and evaluation phases. Experience has shown that the involving supervisory teams from universities have, in some cases, resulted in the decision-making bodies within the district in which the students worked to accept SEPs as a tool for community development. Students also work with farmer groups and are often linked to banking, credit and marketing institutions for assistance. The weak linkages among farmers, extension agents and researchers in technology generation and adoption are strengthened through SEPs.

Assisting the vulnerable in communities

SEPs are aimed at protecting the vulnerable -- such as the poor, women and children -- who have little or no voice in many major decisions affecting their livelihoods. Many SEPs have introduced more nutritious and balanced diets to improve people's health. Healthy farmers can better sustain crop yields and the productivity of animals and bring about agricultural development.

Amoanda and Anweem Kumasi are farming communities in the KEEA district of Ghana. Children there are often malnourished, a source of worry to the district assembly. Ruth Tagoe promoted the processing of soybean, which was in abundance at the market, into a powder. The soybean powder was incorporated into the local weaning foods of the nursing mothers at Amoanda and Anweem Kumasi. Follow-ups at the local health post saw improved weight and health of children of mothers who used the soybean powder in their diets. One woman took on the processing of soybean powder as an income-generating activity and sold it to women during their weekly antenatal visit to the local health post.

Facilitation of infrastructural development

SEPs invest in development of storage and processing facilities, fish hatcheries and nurseries. SEPs thus provide beneficiaries access to basic facilities to improve on farming ventures.



Picture 2. Exhibition of various dishes prepared by a SEP student from soybeans.

The Dadin Kowa community in Gombe State, Nigeria, is noted for rice production, made possible by the presence of an irrigation dam. Benjamin Shamaki addressed the problem of poor postharvest handling and processing of rice by women processors in Dadin Kowa through an SEP. To improve rice processing, the community acquired infrastructure such as solar dryers, a concrete drying floor, improved parboilers, destoners and winnowers fabricated and disseminated by the Engineering Department of the International Institute of Tropical Agriculture, Ibadan, in collaboration with Sasakawa Africa Association.

Raising agricultural productivity

The continued application of knowledge, skills and technology introduced during SEPs enhances agricultural production and productivity.

Small ruminant farmers at Zang community in Yendi district of the northern region of Ghana used to leave their animals on free range, thereby leading to conflict between crop and animal farmers and loss of animals from lorry accidents and pilfering. Baako Abdulai addressed the problem with ruminant farmers through the introduction of housing and the provision of supplementary feeding. Selected animals kept and fed on supplement diets showed an increase in weight over just a one-month period. The farmers legislated and banned animals on free range in the community. Every household built a house to keep their animals. The SEP improved the weight of animals and enabled crop farmers to achieve high harvests because the destruction of crop farmers became a thing of the past in the community.

Support institutions in the agricultural development process

SEPs support the formation of institutions such as farmer groups and assist institutions such as NGOs and the private sector to enhance the development process.

The Cocoa Services Division (CSD) of the Ghana Cocoa Board is responsible for the production and supply of hybrid cocoa seedlings. Cocoa farmers are expected to use the hybrid seeds from the numerous cocoa seed gardens of CSD.

Because of the unavailability of hybrid seedlings at Adenkyensu in the Birim South district of the Eastern Region of south Ghana, farmers have had to use old cocoa cultivars, which are late-bearing and low-yielding. Albert Akomaning forged a linkage with CSD through a SEP to establish a demonstration nursery of 1200 improved cocoa seedling with 20 cocoa farm families at Adenkyensu. Each farmer in turn established a nursery, which was certified by CSD. Other farmers bought certified seedlings from Adenkyensu to establish cocoa farms.

Creation of employment and alleviation of poverty

The development and dissemination of technologies with beneficiaries generate employment. Incomes obtained from SEPs are used to support families and alleviate poverty.

Michael Deh facilitated the adoption of grafting techniques in the production of exportable mango cultivars (Kent, Keitt, Haden and Palmer) and nursery management of planting materials among farmers in the Yilo Krobo district. The aim was to address the high cost and unavailability of planting materials for exportable mango cultivars in the Yilo Krobo area of Ghana. The commercial production of mangoes has a high local and export market. The project established a 1000-root-atock demonstration nursery with 20 poor farmers. Each of the farmers has taken to nursery establishment as a secondary source of employment, producing an average of 1000 seedlings every month. The cost of improved mango seedlings ranges from GH¢2 to GH¢3. The extra income from the sale of seedlings could help alleviate poverty among the farmers.

Lessons for Successful Implementation of SEPs

Nature of SEPs

Students and beneficiaries are given the opportunity to apply and observe the results of application of principles and practices. The SEP process facilitates learning by transforming students' field experiences into knowledge. SEPs by nature

are occupationally oriented. They focus on the occupational interest of students and seek to improve extension professionalism and the competencies of students at work. The program activities, along with classroom instruction and leadership development, ensure the successful contribution of SEPs to community development.

SEPs also focus on the farm, agricultural businesses and services, agro-processing and/or rural development. Student SEPs address the real problems of the farming communities in the various regions of the country and improve the livelihoods of rural dwellers, who are the targets of most SEPs. Finally, monitoring and evaluation were put in place to ensure that university professionals and students' employers are involved in checking on students' achievement, discussing problems and providing on-the-job instructions.

The strong partnership

There is a very strong partnership between farmers, officials of MOFA (in the case of Ghana), NGOs, extension professionals, prospective students, university administrators and lecturers in decision-making on matters affecting SEPs. Genuine dialogue and consultations between the stakeholders and other public and private agricultural institutions and agencies are necessary for the development and implementation of the SEPs.

The availability of basic teaching and learning resources

The availability of basic teaching and learning resources provided by SAFE and governments through their ministries of agriculture and universities has sustained the preparation of students to implement SEPs. In the 2008 fiscal year, SAFE spent US\$6,211,505 to support 13 programs in nine African countries (SAA, 2009).

Periodic reviews

Periodic workshops for lecturers and other partners on SEPs were implemented to refocus on the philosophy of the program and to orient new staff members. The internal and external evaluations on the programs have helped SAFE to make needed changes to improve SEPs.

Commitment of stakeholders to the philosophy of SEPs

Stakeholders are committed to implement the SEP philosophy and have not wavered or backed off, even when questions arose about the rigorous nature, cost outlay and incompatibility with the curriculum in the universities.

Incorporation of community and field-based experiences into teaching and learning sessions

The SEPs provided opportunity for lecturers who hitherto had remained on the campuses to visit the field (local and international) to share ideas and experiences with clients and vice versa. Then real field-based problems are introduced into teaching and learning in the university. SEPs have thus assisted to enrich community-based curriculum delivery at

universities and training colleges participating in SAFE-sponsored programs.

Problems Encountered and How They Were Resolved

Financing SEPs

The cost of SEPs to students and universities is a major challenge. A case study on SAFE programs in Ghana reveals that the SAFE programs in Ghana require approximately US\$26,000 each year to implement the SEP component of the program. Each student also spends approximately US\$1,000 on the off-campus SEP (Annor-Frempong and bin-Yahya, 2008).

Systematic financial support is being sought from personal sources, NGOs, banks, municipal/district assemblies, beneficiary communities and the Ministry of Food and Agriculture to finance the projects.

Ensuring sustainability of field activities

It has become very difficult to constantly maintain the tenets of SEPs among students, lecturers and employers during the implementation of projects in the field because of the cost involved in the supervision. More effective supervision and a standardized reporting format have been developed to address this challenge. The major problem occurs when students graduate and are transferred from areas where the SEP was implemented. Projects are located on the assumption that students will go back to continue the projects. Networking of trainees with potential funders and beneficiaries is being promoted to perpetuate the gains of SEPs in communities.

Conclusions

The SEP experience has shown that revitalizing agricultural curricula for development of extension is one of the surest means of ensuring long-term sustainable community development. Agricultural extension professionals can play a critical role in achieving sustainable community development, food security, poverty reduction and natural resource management in Africa while undergoing training. Therefore, African universities and colleges should play a more proactive role in community development by offering more responsive training programs and new methods of curriculum delivery. Moreover, national governments, bilateral agencies, donor agencies and foundations should remain engaged in agricultural education and capacity building by providing needed funds to agricultural education and training initiatives such as SAFE. It is one of the surest and most effective means of reducing poverty and ensuring sustainable development.

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