

Session 8: Participatory methods in impact assessment

Facilitator: Nina Lilja

Comparative evaluation of participatory and conventional approaches to impact assessment—A SWOT analysis

Francesca Mancini

An impact assessment of cotton-based conventional and IPM farming systems in terms of the economic, ecological and social sustainability was conducted in India (2002–2004). The evaluation covered a number of different fields, from the ecological footprint of cotton production, the health impacts on spray operators and farm workers of the use of insecticides, to the social impacts in terms of overall livelihood and empowerment. To tackle the data requirement generated by the multidisciplinary research, a mix of methodological approaches with different degrees of farmers participation was used. The environmental impact was calculated by means of a Life Cycle Analysis, which quantified polluting emissions of cotton production. Information on practices and input-use were collected by interviewing farmers. The self-health monitoring of acute poisoning was conducted using a partially participatory research tool that placed farmers as the main respondents. Finally, a Sustainable Livelihood Analysis was conducted to capture farmer's emic perception of impact using a fully participatory approach. The two latest studies were designed to address gender differences. This paper proposes a SWOT (strengths, weaknesses, opportunities and threats) analysis of the methodologies used in the impact assessment. The role of participatory research in impact assessment and its complementarity to conventional research is discussed. Furthermore, the importance of a gender-sensitive approach to ensure effective project implementation and evaluation is analyzed on the basis of the experience gained in the impact evaluation of cotton IPM FFS.

Assessing impacts of pathogen-tested sweet potato planting materials in Central Luzon, The Philippines

Carlos S. Basilio, Rizalina M. Tablarin, Fe Porciuncula and Lolit M. Dolores

Sweet potato production in Central Luzon, The Philippines has been plagued by a virus disease complex locally known as *camote kulot*. Aside from causing more than 50% reduction in yield, the disease was also responsible for the loss of an important variety with good and well-accepted agronomic characteristics. Inter-agency efforts resulted in a technology in the production of clean planting materials through thermotherapy and meristem culture. A sweet potato variety has been cleaned up, reproduced and multiplied for farmers' use.

CIP-UPWARD supported the use of participatory R&D approaches to adapt clean planting material (CPM) in sweet potato-associated livelihood systems in the region. The program implemented livelihood systems analysis, farmer field schools and farmer-participatory research. Several technical and socio-economic evaluation activities were also conducted to determine the contribution of these projects and CPM in livelihood systems.

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The results indicated the role of participatory approaches in facilitating project outputs and outcomes. Participatory research and development (PR&D) approaches intensify awareness of research and development institutions about *kulot* and the potential of CPM in solving it, leading to their provision of resources and other support to its solution. CPM were produced and used by 117 farmers in 19 villages of the provinces of Tarlac and Bataan. Local government units provided their own resources so that their constituents will benefit from the technology. They built net-houses, financed FFS and mobilized communities, leading to the establishment of enterprises for CPM technology. Unfortunately, there are a number of technical, socio-economic and policy issues that limit more widespread use of CPM and improvements in contributions of sweet potato to the livelihood systems of households in the region.

This paper also looks at the various elements of PR&D, how they have been operationalized within the project context and how they have contributed to achieving project outcomes and impacts. These elements evolved from UPWARD's own field-based experiences and from efforts by other organizations to develop a wide range of participatory approaches. This paper explores the use of the following elements: problem-based agenda, impact-driven objectives, field-based action, user responsiveness, household orientation, livelihood systems framework, integration of scientific and local knowledge, interdisciplinary mode and inter-institutional partnerships—as touchstones for assessing PR&D processes.

Picturing impact of the PEDIGREA Programme: A case study from Indramayu, Indonesia

Nugroho Wienarto, Engkus Kuswara and Arief Lukman Hakim

Over the years, FIELD Indonesia has been using various participatory approaches toward measuring impact of its interventions, mainly in the framework of its involvement in integrated pest management (IPM) programs. Since 2002, FIELD Indonesia has been one of the partners in the PEDIGREA Programme, focusing on participatory crop and farm animal improvement. PEDIGREA is a regional program on farmers' management of genetic resources, i.e. rice, local vegetables and poultry, which is implemented by three NGOs in Cambodia, Indonesia and The Philippines, and supported by Wageningen UR, FAO and IPGRI APO.

Over the last 12 years, a range of impact-assessment approaches has been utilized by Farmer Field School (FFS) alumni, FIELD Indonesia, and its former alliance, the FAO IPM Technical Assistance team in Indonesia. The first attempt of FIELD Indonesia, conducted in 1991 (the development of three IPM Village Profiles), involved having farmers draw and discuss the benefits of participation in an FFS. Other approaches are relying on aerial planning and interactive participation techniques, and on iterative appraisal approaches, and include focus on socio-economic impacts. Comparing these approaches reveals that a wide scope of options for monitoring impact is available.

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Here we report on the results of an impact-assessment method that appeared highly practical as a participatory tool: a participatory and interactive perception measuring technique for which farmers were asked to analyze the impact of the PEDIGREA Programme activities in their villages by making a photograph series of the project results and discussing the photographs in the community. The process distinguishes three steps: (a) a three-day workshop with farmer representatives from each group/village to discuss the concept of project results and impacts, and the concept of farmers' sustainable livelihoods, to learn how to take useful photographs, and to make a work plan of objects and situations for each village to be photographed; (b) a two-week period of activities in each village to take photos, select the interesting pictures, and write the explanatory notes for each of the photos; (c) a three-day workshop to finalize the notes for each picture, to reflect on the program impacts and farmers' benefits, to develop a SWOT analysis and strategic plan for each group/village, and to evaluate the monitoring impact process.

Some of the major results as visualized in the impact-monitoring approach include: other farmers in the villages started to learn the breeding process from the farmer participants in the FFS; other farmers started to ask for and plant the local vegetable seeds, e.g. *luffah* and bitter gourd, which resulted from breeding activities in the village; better prices in local market for *luffah* produced by the farmer participants were realized; and some village authorities provided resources to the groups to conduct local field studies.

This approach appeared important as it enabled program stakeholders to learn through farmers' lenses. Also, farmers themselves can analyze the status of the program through a visual tool (photographs). The results are in the hands of farmers for their own documentation and exhibitions, and can be utilized directly as a planning tool for their follow-up activities. The ownership of the results by the farmer groups is high: FIELD had to borrow the photo albums for two weeks for digital scanning and needed to return them immediately. Other features of the approach are that it is highly qualitative, that it needs some technology normally not available from the village (pocket camera and color photo processing), and that it is moderately time-consuming. Some conditions need to be fulfilled for the approach to work: the farmer groups have to be involved in the project activities for one year or more; availability of good facilitators and organizing capacity among farmer participants is essential; and the activity should be conducted when farmers are not very busy with their jobs. Furthermore, some suggestions can be made for future improvement: expanding the time in the village to 3–4 weeks, and conducting a farmer group meeting every week to discuss progress and issues in taking pictures and preparing notes prior to joining the final workshop.

Results of the study show that PEDIGREA activities have a clear impact in the three villages studied. From a sustainable livelihoods perspective, the FFS approach employed by the PEDIGREA Programme appears to have contributed to developing farmers' capacity to work towards the alleviation of rural poverty.