

# Participatory monitoring and evaluation of new technologies developed with farmers in Northern Tanzania

Elisabeth Maeda, Juma Wickama

► **To cite this version:**

Elisabeth Maeda, Juma Wickama. Participatory monitoring and evaluation of new technologies developed with farmers in Northern Tanzania. APPRI2008 International Workshop. Learning, producing and sharing innovations. Tools for co-construction and sustainable implementation of innovations in dryland Africa. Atelier International APPRI2008. Apprentissage, Production et Partage d'Innovations: quels outils pour le renforcement des capacités, les mesures d'accompagnement, la co-construction et la mise en œuvre durable d'innovations dans les zones rurales sèches en Afrique?, Oct 2008, Ouagadougou, Burkina Faso. <cirad-00406615>

**HAL Id: cirad-00406615**

**<http://hal.cirad.fr/cirad-00406615>**

Submitted on 23 Jul 2009

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Atelier international APPRI 2008  
Apprentissage, Production  
et Partage d'Innovations

Quels outils pour la co-construction et la mise en œuvre durable  
d'innovations dans les zones rurales sèches en Afrique?



Ouagadougou, Hôtel Palm Beach, 20-24 octobre 2008

**Participatory monitoring and evaluation of new technologies developed  
with farmers in Northern Tanzania.**

*Elisabeth Maeda ([elizabeth.maeda@kilimo.go.tz](mailto:elizabeth.maeda@kilimo.go.tz)) & Juma Wickama  
Ministry of Agriculture food Security & Cooperatives, Tanzania*



## **Participatory monitoring and evaluation of new technologies developed with farmers in Northern Tanzania**

*Elisabeth Maeda<sup>1</sup> ([elizabeth.maeda@kilimo.go.tz](mailto:elizabeth.maeda@kilimo.go.tz)) & Juma Wickama  
Ministry of Agriculture Food Security and Cooperatives, Tanzania*

### **Background**

The Lushoto district is located in the Eastern Usambara Mountains-Northeast Tanzania at an altitude of 200-2000m with annual rainfall of 1400 to 1800mm. The region have high density population 200-300/km<sup>2</sup> and 96 % rural main activity is as subsistence farming of vegetables, fruits, maize, Irish potatoes and beans. The main constraints are the loss of soil fertility from excess runoff resulting in land degradation and poor available water quality and quantity.

The definition of Participatory Monitoring and Evaluation (PME) differs greatly from one place to the other depending on the local context and conditions. PME is a process which stakeholders at various levels engage in monitoring and evaluating a project, share control over the content, the process and the results of M&E activity and engage in taking or identifying corrective measures.

Participatory monitoring and evaluation (PME) was applied in this context where severe soil erosion, decrease ecosystems productivity, declining quality of natural resources base and increasing levels of poverty due to limited income generation alternatives were pregnant.

### **Objective**

The objective of the study is to illustrate the pattern of farmers' bottom-up participation in monitoring and evaluation processes in soil management and improvements. Specific objectives of the study was to enhance the positive synergies between water, soil and tree management in micro-catchments, improve farmers incomes and system productivity (crops, livestock & trees) and ensuring sustainable nutrient management in the system (integrated production and nutrient management).

### **Description of the project**

A baseline survey, was conducted before the field action started with the involvement of the target group from Northern Tanzania for the purpose of comparison.

A methodology participatory learning action research that involves a team of multidisciplinary scientists from the National Agricultural Research Institutes (NARIs) in collaboration with target group of farmers were involved in initiating the assessment and development of new technologies.

Tools used involved (i)sampling methods, (ii) Core M&E methods (stakeholder analysis & Questionnaire), (iii) methods for groups discussion (brainstorming & role plays), (iv) spatially distributed information (maps & transects), (v) time based patterns of change (diaries & photographs), and (vi) analyzing relationships and linkages (impact flow diagrams & problem trees).

Information that answered the 5 core evaluation questions on (i) relevance (ii)Effectiveness (iii.) efficiency, (iv) Effectiveness and (v) impact and sustainability were monitored and evaluated as well as cross cutting issues on gender balance and reaching the poorest and so on. The farmers were principal decision makers, active participants and controllers of the direction of their

---

<sup>1</sup> Ministry of Agriculture, Food Security and Cooperatives, Division of Research and Development, P.O Box 9192 , Dar es Salaam, Tanzania

initiatives in On-farm agriculture research and development in collaboration with research scientists in evaluating new technology.

The primary stakeholders are the local People, local women, men and children (pivot to the learning process), grassroots organizations at community and higher levels-facilitate participatory processes during implementation and implementers Partners as Government services NGOs and commercial operators (catalytic and advisory functions). The Responsible is the government Ministry (Ministry of Agriculture).

### **Results and Impacts**

In the procedure used, eight different stages were distinguished: diagnostic, solution identification, trial planning, trial implementation, trial management, monitoring (data collection), data analysis (evaluation) and dissemination. Once developed scientists went about to develop action plan designing adaptive research experiments which were established on farmer's fields managed by farmers' groups and evaluated to select and adapt best bet options to disseminate to farmers.

Such a process of participation described ways of building relationships with farmers, and improving communication through choices of various tools used in participatory monitoring and evaluation activities. In addition it covers the selection of farmers for evaluation, and reviews a number of methodologies employed. The process resulted in systematically monitoring and evaluation of outcomes, its challenges, their experiences, lessons and behavioral changes that has taken place as they try to apply the approach.

Such participation enhanced farmers' capacity to adapt and develop new and appropriate innovations by encouraging them in learning through experimentation, building on their own knowledge and practices and blending them with new ideas in a participatory learning and action mode. The involvement has resulted in the collective decision which has enable the group to identify , clarify and select the objectives that they wish to observe and analyze, the indicators for measuring the achievements of the project's objectives and the activities needed to reach them. The main impacts were in:

- Facilitating the building of partnerships
- Getting the Community involved-somehow, sometime and somewhere
- Involving Community in evaluation ensured a sustainable appropriation of their innovations
- Empowering local people to control their own development
- Providing responsive feedback from primary stakeholders and to changing circumstances
- Developing M&E capacity and empowerment oriented initiatives
- Downward accountability and stakeholder participation in developing, implementing and improving the M&E process

### **Prospects**

The action provided opportunity for joint learning among scientists and target communities through the identification of specific areas to be monitored, openly discussing challenges in adapting the monitoring and evaluation tools as well as recognizing the benefits of using the tools in project assessments. Such interaction between farmers and scientists definitely improved and both sides were learning from each other.

**Keywords:** Monitoring, Evaluation, Participation, Joint learning, indicators, Capacity enhancement, Feedback mechanisms, Lushoto, Tanzania