

Strengthening capacities of agricultural communities to adapt to climate change in Bukinda Sub county, Kabale district

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Abstract

This project, carried out as a follow-up to M.Sc thesis research, aimed at addressing issues identified as climate change priorities was a direct result of the urgent climate change adaptation priorities identified in Kabale district during the MSc. research. Upon completion of the MSc. research, a Field Attachment Programme Award (FAPA) was provided to disseminate the results of the MSc research. The project used participatory approaches to disseminate climate change adaptation strategies and technologies to rural farmers. This provided an opportunity to obtain field working experience while disseminating his M.Sc thesis research results.

Key words: Climate change adaptation and variability, participatory approaches, Feedback and awareness, land management practices

Résumé

Ce projet, réalisé comme un suivi de recherche d'un mémoire de maîtrise et visant à résoudre les problèmes identifiés comme priorités au changement climatique, était un résultat direct des priorités urgentes d'adaptation aux changements climatiques dans le district de Kabale au cours d'un travail de recherche de maîtrise. Au terme de la recherche en maîtrise, une Bourse du Programme d'accompagnement sur terrain (FAPA) a été fournie pour diffuser les résultats de la recherche de maîtrise. Le projet a utilisé des approches participatives pour diffuser les stratégies et les technologies d'adaptation au changement climatique aux agriculteurs ruraux. Ce fut l'occasion d'acquérir une expérience de travail sur terrain au moment de la diffusion de ses résultats de recherche pour un mémoire de maîtrise.

Mots clés: Adaptation au changement climatique et variabilité, approches participatives, feed-back et sensibilisation, pratiques de gestion des terres

Background

It is widely recognised that there is a gap between the people who produce the scientific knowledge that informs adaptation and the people who need and apply that knowledge (Dotto, 2000). The challenge is to bridge this gap and break down silos of academic and practitioner-based disciplines in order to create a healthy and sustained landscape of trust and shared dialogue that generates need-driven knowledge. Knowledge generation for the sake of generation alone is inadequate. New knowledge has the potential to inspire new ideas as well as inform new interpretations of existing knowledge and experiences. This, in turn, has the potential to influence decisions and actions such as climate risk management, adaptation and sustainable development. It is imperative that knowledge that is generated through research be translated into clear messages and shared with the people who need it in relevant, timely and usable ways (Bardwell, 1991). Pathways and mechanisms must also be developed that nurture more demand-driven research initiatives (Yee, 1999). The urgency of this project therefore, emerged from adaptation priorities identified during an Msc research that demanded action to move science forward to change society.

Literature Summary

The purpose of undertaking agricultural adaptation is to effectively manage potential climate risks over the coming decades as climate changes (Henderson and Holman, 1993). Adaptation research undertaken now can help inform decisions by farmers, agri-business, and policy makers with implications over a range of time frames from short-term tactical to long-term strategies (Scott, 2000). Given the current knowledge gaps in Africa and the potential power knowledge has to reduce the impacts on climate related risks, it is worth investing in the creation and enhancement of new mechanisms for knowledge generation and sharing. There remains a critical need for cross-scale exchange of knowledge and best practices to support the implementation of near and long-term adaptation strategies that advance climate compatible development and equity. In order for adaptation strategies to be bestinformed, co-generation of knowledge and knowledge sharing across multiple knowledge systems is critical. While uncertainty will remain an obstacle for decision making, sharing knowledge provides an impetus for policy and decision-makers to integrate such knowledge and research outputs into their decision-making processes.

Study Description

This FAPA project was implemented in Bukinda sub-county-Kabale district located in the southern part of Western Region of Uganda. Community based participation and participatory

approaches were used to implement the activities through three feedback and awareness creation workshops. A total of 45 participants were reached during the FAPA including village elders, Local Council Chairpersons (LCs), Parish Development Committees (PDCs), women, men and youths. Participants were informed about the MSc research findings and a way forward was chartered in terms best practices to be used, strategy for scaling out and up and the best synergies between climate changes and land resource management that generate mitigation, adaptation and food productivity benefits.

Research Application

Feedback and awareness workshops were created to share data and information from survey findings among stakeholders. During local feedback workshops, the lead author shared the most appropriate and effective adaptation and mitigation technologies to climate change and variability that were identified during the M.Sc. study. These included; the land management practices especially those which increase soil carbon, enhance moisture holding capacity, improve soil biological activities and consequently reduce climate-induced agricultural production risks. Crop management practices of interest to our discussions included timely planting, timely weed control, use of pest and disease resistant varieties and post-harvest handling practices like harvesting at the right moisture level, proper drying, avoiding contamination by inert materials like stones and soil matter and control of post harvest pests and diseases. All these practices were agreed on based on their cost-effectiveness, efficiency and appropriateness to the local communities.

Lessons Learnt

The holistic approach adopted by integrating climate change and variability with farmers' perceptions and coping strategies to impacts of climate change and variability gave the FAPA project a practical outlook.

Recommendations

If knowledge is generated, shared, and used in effective manner, it has tremendous power to change lives and environments. Therefore, committed, long-term efforts are needed to enhance the impact of research on place-based and solution-focused needs.

There is need for initiatives to scale out the tested adapted technologies on-farm

Approaches that emphasize bottom-up and recognize local coping strategies and technologies should be promoted

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References

- Bardwell, L. 1991. Success stories by example. *Journal of Environmental Education* 23(1):5-10.
- Dotto, L. 2000. Proof or consequences. *Alternatives Journal* 26(2):8-12.
- Henderson, S. and Holman, S.R. 1993. Global climate change education: technology transfer to schools. *Climate Research* 3:137-140.
- Scott, A. 2000. The dissemination of the results of environmental research. A scoping report for the European Environment agency. *Experts' corner series (draft)*. SPRU, Brighton.
- Yee, B. 1999. Climate Change: Public Education and Outreach. In V. Wittrock (Ed). Synthesis of the March 1 & 2, 1999 Prairie Climate Adaptation: Public Outreach Workshop for the Participants. Prairie Adaptation Network, Saskatoon.