



How to Make Nutrition-Sensitive Agriculture Work?

Executive Summary

NutriHAF as a nutrition-sensitive agricultural project faced various challenges and opportunities by introducing leafy vegetables in multi-storey cropping systems in SW-Ethiopia. The experiences of the project, especially the responses given to the constraints result in some general conclusions and policy recommendations on how to make agriculture more nutrition-sensitive.

Introduction

NutriHAF as a research and capacity building project in the framework of the “Research Cooperation for Global Food Security and Nutrition”, funded by the BMEL, aimed at increasing nutrition security by integrating vegetables into multi-storey cropping systems in a biodiversity hotspot of SW-Ethiopia. To achieve this goal, the project created knowledge about appropriate vegetables and adoption strategies and transfers knowledge to farmers and decision makers about nutritional values, production and post harvest handling of vegetables. The project showed some interesting results, but also faced some constraints on different levels and dimensions. The objective of this policy brief is to summarize the experiences of the project to give some indications for future nutrition-sensitive agricultural projects.

Approach

The project was undertaken from 2015-2018 in Yayu and Hurumu districts (woredas). The two woredas are located in the south-western part of the northwestern Ethiopian highlands in the Illubabor zone of Oromia State. These districts are part of the Yayu biosphere reserve area. The significant parts of the population in this biosphere are affected by micro-nutrient deficiencies. The project was undertaken from 2015-2018 in Yayu and Hurumu districts (woredas).

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Activities

The main activities of the interdisciplinary project included field trials of seven plant varieties (pigeon pea, cow pea, jute mellow, amaranth, Ethiopian kale, pumpkin, cabbage) where the project provided seeds. After harvesting the leaves, participatory cooking demonstration and tasting evaluation were conducted. A socio-economic household survey was created and analyzed. Trainings to farmers and development workers were provided on nutrition & agriculture, food safety, processing and training materials (e.g. vegetable booklet) elaborated. To promote nutrition-sensitive agriculture, roundtable discussions with government representatives at regional and national level were organized. Before project end, an evaluation has been carried out to get the opinion on farmers on the leafy vegetables.

Results

Challenges

The main constraint at the beginning was the reluctance of farmers to introduce unknown crops (mainly leafy vegetables) in shaded areas. Some of the leafy vegetables have been regarded as weeds and fodder for animals. Some of them have long been considered as “famine crops” as they were used to be consumed during hunger seasons in earlier times. Another constraint was that female farmers, the main vegetable cultivators, face a high workload.

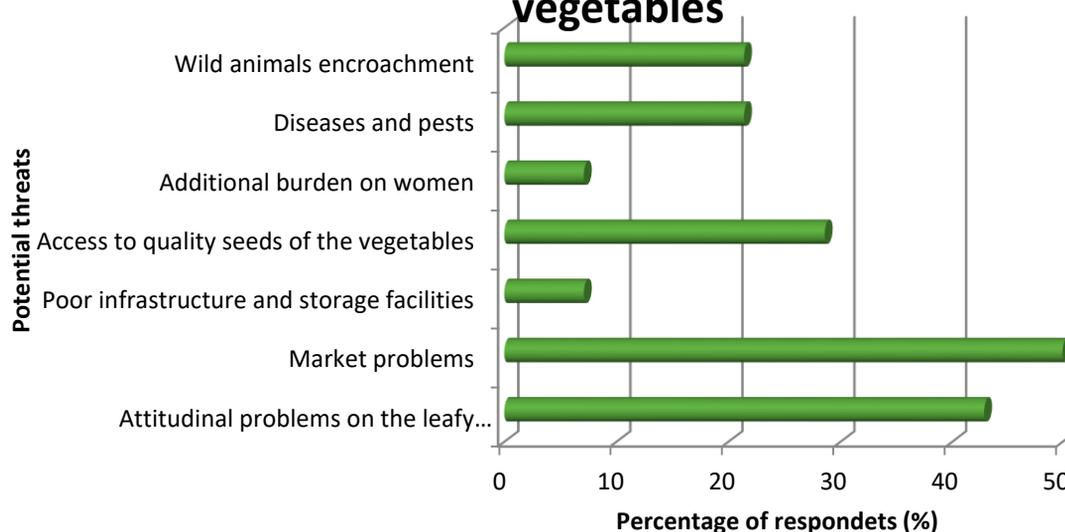
Also, the existing extension services are not specialized in horticulture production, and even if there is official political support to nutrition-sensitive agriculture, this has not been translated yet into concrete actions on the local level.

Farmers of the project area who tried out cultivating the leafy vegetables reported that there were a number of challenges in producing these vegetables (see figure 1). The main challenges include market problems, limited access to the vegetable seeds, lack of land, wild animals’ encroachment and diseases and pests. The challenges in relation to lack of vegetables seeds and vegetable diseases were also in line with the findings of Hunde (2017).

Opportunities

Despite the threats, farmers have also mentioned the existence of some opportunities that motivates them cultivate the leafy vegetables. The majority of them (57%) mentioned that the leafy vegetables are cultivable in smaller plots of land than the other type of vegetables (such as Ethiopian kale, cabbages and beetroots) cultivated in the area. Farmers explained that production of the leafy vegetables (particularly amaranth was mentioned in this case) per plot of land is higher than the other well known vegetables growing in the area. Some 21% of respondents stated the potentiality of the vegetables for future market and the support/encouragement of the agriculture office on cultivation of vegetables as opportunities.

Fig. 1 Potential Threats of cultivating the leafy vegetables





Responses

The NutriHAF project responded to these constraints by establishing demonstration plots in shaded and open spaces, so that farmers could try the new vegetables under different conditions. The farmers were given intensive assistance in the planting of the vegetables, and advice was given to farmers and extension workers on how to plant. The project developed recipes and made cooking demonstrations using the new vegetables. The latter turned out to be a key factor for the raising interest of farmers (as consumers) of the newly introduced crops as their good taste convinced them. A major success was that they afterwards produced, stored, shared and demanded seeds for the next growing season.

Evaluation

Farmers who participated in cultivation, trainings and cooking demonstration confirmed that their attitude toward the vegetables has changed. The leafy vegetables such as amaranth, which have long been regarded as weed and 'famine crop', have been now grouped under the category of preferred vegetables that the farmers are interested to cultivate and consume in the future. The farmers had a tremendous role in disseminating information about the leafy vegetables for other farmers who did not participate in the project interventions, conveying an obvious multiplier effect. Apart from the nutritional contents of the leafy vegetables, their productivity per smaller plot of land and being a short-seasoned vegetables have been some of the reasons for farmers to be interested to cultivate the vegetables in the future. The nutrition knowledge of women, who normally play a vital role in vegetable cultivation and food preparation, was confirmed to be remarkable that could possibly ensure the cultivation and consumption of the leafy vegetables in the future. In general, it is possible to conclude that the interest of farmers to cultivate and consume the leafy vegetables has been increasing taking into account the willingness of farmers to allocate their land (more than three quarter of the respondents) and the preference and interest to consume the vegetables including for their children.

Outlook

If this interest continues to grow, value chains of nutritious leafy vegetables are expected to emerge in the region. For this to happen, it will be necessary to continue generating knowledge and build capacities, give gender trainings, assist market development, create awareness of stakeholders and search for political support. If the local extension service, with the help of training materials elaborated by the project, and supported by the authorities, continues with these activities, an up-scaling of project results can be expected. But the strongest driver to make nutrition-sensitive agriculture work seems to be the interest of farmers for tasty food as well as for new cash crop opportunities.

Nevertheless, some key questions remain:

- How to transform awareness building of stakeholders into action?
- How to use the data created by Universities of the region into practice?
- How to increase the probability that gender trainings have real consequences?
- How to minimize additional workload for women?
- How to create markets for widely unknown leafy vegetables?
- How to assure political support in an unstable political environment?

Policy Recommendations

1. Generate knowledge and build capacities on vegetable production and processing by demonstrations and training programs.
2. Select and plant vegetables in a participatory and a non-participatory way.
3. Convince farmers not only by nutritious values, but by good taste, developing locally adapted recipes.
4. Convince extension services of the importance of horticulture and nutrition issues by offering trainings and training materials.
5. Introduce simple but effective food conservation practices by using locally available materials.
6. Establish a functional seed distribution system by working with local farmer groups.
7. Invite important stakeholders such as research centers, universities, and agriculture and health offices to collaborate and to take over the responsibilities of scaling-up the activities.

References/Further Reading

Hunde, NF (2017) *Opportunity, Problems and Production Status of Vegetables in Ethiopia: A Review*. Journal of Plant Science & Research; 4(2):1-13

This policy brief is based on the documents:

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