REDUCING THE RISK OF HUNGER WITH A VERSATILE CLIMATE-SMART BANANA-COFFEE CROPPING SYSTEM

Background

Agriculture will always be largely at the mercy of the climate. Too much rain, too little rain, or simply rain at the wrong time can devastate a farmer's crop. An intense downpour may wash away newly planted seeds, leaving the farmer with the prospect of no crop or the expense of replanting. This made CARITAS Maddo which operates in Masaka district, Central Uganda to consider these dynamics in the climate and introduced a climate-smart farming system that farmers have adapted to.

CARITAS Maddo promoted integrated banana production with coffee to the farmers. This was meant to solve the issue of food and income insecurity as well conserving the environment. The focus was on the restoration of indigenous varieties of bananas that were being replaced by improved varieties. The planting spacing of the banana is 10 feet by 10 feet from one plant to another as the major crop; this is integrated with coffee which is a minor crop at a spacing of 20 feet by 20 feet from one plant to another. The holes for banana plants measure 45cmx45cmx45cm and deep as 60cm maximum while that of coffee is 60cmx60cm to provide good room for root development. The holes are left two months before planting and filled with topsoil and compost; this allows the nutrients to be available for the new tree. This is followed by transplanting which is always done during the cloudy days or in the evenings.

Agronomy

Mulching of the field is mandatory for one to get higher yields. Materials used to mulch include rice straws, dry grasses that maintain the soil moisture; continuous pruning to

remove the old leaves and application of manures after every three months are key activities, says Herman. Close-ended trenches are dug in the field to conserve water that would be lost during rainy times. This water is later used by the plant during scarcity. In addition, different tree species are planted bordering the garden/field to act as windbreakers that would destroy or break down all the plants in the garden. The trees are later a source of income to the farmer but replacement of the cut tree is emphasized. Within the field, indigenous crops like yams are put. Pastures are also put on the sides of the major plants.

Not only are these activities integrated. Apiary (beekeeping) was highly recommended by CARITAS Maddo as an activity that conserves the environment alongside integrated banana and coffee production. Bees help in the pollination process most especially coffee farmers. The hives are put at the extreme end of the field/ garden such that there are no limitations during the carrying out of the agronomic practices.

Achievements

- Space is maximally utilized as different crop varieties are in a small field and this ensures food security to the farmer.
- Yields are high are all treatments done are purely organic and timely.
- There is no degradation of the environment ensuring the safety of the farmer, air, water, and livestock.

Challenges

- Most farmers are rigid and not willing to plant indigenous varieties.
- There was the challenge of accessing more farmers who would take on this initiative from far places because of transport means/facilitation.
- Farmers are not trusted, because sometimes they hide and use inorganic products that affect even the neighboring fields.

Key learnings

Indigenous crops and their methods of farming are a great source of income and contribute to food security in the community.

Recommendations

"A healthy life is so important. 70% of the diseases affecting the communities currently come from what people eat, how they eat, and when they eat. However, this can be solved by turning from inorganically produced foods to organically produced foods and this is very possible for every farmer. Let's respect the environment and keep it safe and free from chemicals" says Herman.

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