

I- Summary

Irrigation assumes critical stature in agricultural production and plays a vital role in securing food production and sustainable livelihoods. However, older, sicker, and degraded irrigation systems are one of the major challenges, mainly in Asia, which affect agricultural sustainability. Sustainability in agricultural practices is very necessary for the long-term viability of the agricultural sector. The methodology adopted for the research in the present study was to go into the depth of the challenges pertaining to blocked irrigation and the identification of ways to revitalize agricultural practices. It includes a literature review, collection of data on the current status of irrigation systems, analysis of case studies on successful revitalization efforts, and interviews with farmers, irrigation officials, researchers, and policymakers.

II- Introduction

In many nations across the globe, a lot of people depend on agriculture since it is a major source of their food and they receive income from it. Yet, this sector has always encountered huge hurdles in its quest to enhance efficiency while minimizing environmental degradation. One method employed by farmers to achieve these objectives is watering their crops; this helps to promote their growth and at the same time provides assurance of availability throughout the year. However, the condition of irrigation systems in most parts of the world is increasingly worrisome. Aging infrastructures, inefficient use of water, and environmental degradations are but some of the problems that inflict irrigation systems and threaten the sustainability of agricultural production in the long term. It is in this context that new approaches and practices need to be explored in order to enhance agricultural sustainability while ensuring food security. Among these are climate-smart agriculture, organic farming, biodynamic agriculture, sustainable intensification, and regenerative agriculture. In addition, the use of best agriculture practices, such as soil fertility management and application of well-decomposed farmyard manure, compost manure, cattle urine, and wood ash, will significantly enhance the crop yields, reduce agrochemicals, and increase soil organic matter.

This paper will look into the problems being faced in irrigation systems and see how agricultural practices could be revitalized toward sustainability. This paper will try to contribute toward ongoing discourses on sustainable agriculture and irrigation management through fixing the problems of the present state of irrigation systems, identifying barriers to sustainable agriculture, and discussing new approaches and practices.

III- Methodology

1. Research the irrigation systems in Banacud, Bitoon Hinatuan SDS, the problems associated with irrigation if it is to be made more effective and sustainable. The consequences of obstructed irrigation on agricultural production, food security as well as the environment need to be understood. Also, show the economic, social and environmental losses that result from ineffective irrigation systems.
2. What are the consequences of restricted irrigation channels on agricultural output, starvation levels, environment, stressing the monetary, cultural, and environment costs of ineffective channels.
3. Find new methods and techniques that improve agricultural sustainability, like climate-smart agriculture, organic farming, biodynamic agriculture, sustainable intensification, and regenerative agriculture.

4. Focus on soil fertility management and the use of natural amendments to investigate the role played by good agriculture practices in improving crop yields as well as in reducing agrochemicals use while also increasing soil organic matter.

5. Come up with a framework for the rejuvenation of irrigation systems including new technology, policies and practices that can improve irrigation management efficiency, equity and sustainability.

6. Farmers and policymakers, as well as private sector stakeholders are among the key stakeholders including researchers in promoting sustainable irrigation practices.

7. It is recommended that policy and institutional reforms should be advised that they would help in adopting sustainable irrigation practices which include incentives, rules as well as capacity building initiatives.

8. Come up with a plan that explains how to move from traditional to sustainable irrigation systems by increasing scalable agriculture systems. Provide details on the finances, partnerships, time schedules which need to be considered.

IV- Scope of the Project Proposal

- It is essential that we provide instruction on how to fix and repair civilian power supplies so that they can be efficiently used in order to meet the needs of farmers who depend on it.
- It is therefore our duty as farmers to show other people how easy it is to switch over to organic farming.
- Achieving food security depends on getting rid of barriers holding back farming like dry land farming so that rainwater can be better used instead of running off so quickly.
- To enhance the abilities of farmers, agricultural extension officers and local communities in sustainable agriculture and water resource management initiatives.
- To bring government departments together and work in partnership with civil society organizations and private sector actors to enable the successful implementation and scale-up of sustainable agriculture interventions."



It may be difficult for some to perform this task, but we will help the growers grow their crops without any problem.

V-Timeline or Schedule

1. The first two months should be spent doing a full evaluation on the extent of the irrigation facilities that are already in place so that we can have a clear understanding of what works and what does not.
2. Between month three and six, on the other hand, try out some rehabilitation or restoration work such as removing silt from canals. Research more on how this sentence combo can be enhanced.
3. Teach peasant farmers about sustainable farming practices, water-saving technologies as well as soil conservation mechanisms during months 7-9.
4. Establish practical experiments and farmer education on farming in 10-12 months to reveal best practices used in sustainable agriculture. Let learning through practice increase in length.
5. Month 13-15: Support the establishment of community based irrigation water using organizations that manage water for productive use in a manner that will promote sustainability.
6. Between months sixteen and eighteen, you should put up campaigns as well as educational workshops which serve to sensitize the public about the need for conserving water; look after agricultural land that is same for fertility values, and biological diversity.
7. Months 19-21: The strategy should be promoting accessibility of farm inputs e.g. drought resistant seeds, organic fertilizers as well as environmentally friendly pest control methods.
8. Months 22-24: Keep tabs on project undertakings and assess if they achieve their set goals. Tasks involved include figuring out how close such missions are to reaching fruition, analyzing results, and summarizing ideas which might benefit other related works of similar nature.

VII- Budget

The proposed budget of nine hundred thousand pesos (Php 900,000) for the project would cover costs to demarcate irrigation facilities, support staff development, run public awareness campaigns, evaluate the work done \approx – and manage the project. We believe that this amount is satisfying.

VIII- Evaluation Plan

Here is our Evaluation Plan document:

1. Project activities, outputs, and outcomes will be monitored continuously in order to measure progress towards objectives and ensure accountability
2. A comprehensive evaluation at mid-term as well as upon completion of projects should verify the effectiveness as well as impact or sustainability of project interventions
3. Stakeholder involvement in monitoring and evaluation activities that would also help make use of information to better understand the situation and facilitate public recognition of project results.

IX- Sustainability Plan

This is what we can do to keep it sustainable:

- Let us strengthen the hand of village communities and local institutions to oversee and operate their irrigation systems while slowly practicing farming that can be maintained.
- Always attach the project's undertakings with the public administrative programs and policies targeting agriculture, water resources and environmental conservation.
- To make project implementation and continuation easier, resources and support are sought from government agencies, private sector partners, and development organizations.
- This ensures that farmers engaged in sustainable agriculture practices can make income and continue farming for a long time.

X- Conclusion

In Purok 3 Banacud, Bitoon Hinatuan SDS, it is extremely important that you deal with the issue of practicing agriculture in a productive manner for long-term reasons such as protecting food security, improving people's lives and protecting the environment as well. The project seeks resilient, sustainable agricultural systems in which the farmers, communities and environment should benefit through cooperation and innovations. We must reach out to the residents of Banacud as well as their leaders requesting them to assist us concerning these irrigation systems to prevent our crops from being destroyed.