



Palayamanan: Climate Change Adaptation Strategy for Lowland Ecosystem

Philippines - Palayamanan

Synergistic mix of farming ventures implemented by the farm family based on the existing environment and their resources to address food security, income instability, and sustainability.

Aim/objectives: The objectives of the approach are the following: to improve resources allocation; to enhance biodiversity and ecological balance; to reduce production risks; and to increase cropping intensity, productivity, profitability, and economic stability. It also includes continuous food supply and higher income for land users. With Palayamanan, the farm is not just intended for rice. It is about food security, livelihood and empowering farmers to become better decision makers and resilient to climate change. It also aims to develop land users to become farmer-researchers, extension workers and entrepreneurs.

Methods: participatory approach with the stakeholders/land users.

Stages of implementation: Implementation comprised the following stages: (1) Selection of the demonstration sites and farmer-partners; (2) Conduct participatory rapid appraisal on the sites; (3) Planning; (4) Conduct of training for the farmers (Farmers Field School) and for the Agricultural Extension Workers; (5) Establishment of the demonstration farm; (6) Monitoring and Evaluation; and (7) Human Resource Development for Farmers (to become farmer-researcher, extension worker, entrepreneur)

Role of stakeholders: A. Philippine Rice Research Institute (PhilRice): take the lead in the implementation of the program; facilitate the conduct of training; provide technical assistance to the program; and monitor the progress of the program. B. Local Government Unit (Agriculture Office): provide support to the activities of the program; spearhead the dissemination and expansion of the program within their concerned municipality. C. Farmer: participate in various activities of the program from planning to establishment; conduct on-site researches.

The approach introduced a systematized method of farm management involving technologies and practices to utilize available resources without compromising human health and environment. Some of the technologies incorporated under this approach are the following: crop rotation, aquaculture, waste recycling, diversified cropping, alternate wetting and drying, nutrient management, and integrated pest management.

left: Palayamanan training center in Dingras, Ilocos Norte. (Photo: Ronald A. Angat)

right: Diversified cropping practiced in Dingras, Ilocos Norte (Photo: Ronald A. Angat)

Location: San Nicolas, Dingras, Currimaao, Ilocos Norte

Approach area: 0.1 - 1 km²

Type of Approach: project/programme based Introduced by the Philippine Rice Research Institute (PhilRice)

Focus: mainly on conservation with other activities

WOCAT database reference: A_PHI011en

Related technology(ies): Alternate Wetting and Drying (T_PHI059en)

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Problem, objectives and constraints

Problems




Low agricultural production, lack of technical knowledge, poverty

Aims/Objectives

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Constraints addressed		
	Constraint	Treatment
technical	lack of technical knowledge	capacity building and training such as conduct of Farmers Field School.
institutional	Lack of Local Government Unit (LGU) support during the start of the program; Difficulty in getting institutional support	LGUs were involved and invited during training, seminars and other activities related to the Palayamanan during the implementation to gain their support in the sustainability of the program; Organization of farmers association.
financial	Financial support for the expansion areas	Organized the League of Sangguniang Bayan Chairperson for Agriculture to ensure the source of finance for the expansion areas

Participation and decision making

Stakeholders / target groups	Approach costs met by:
 other (specify) land users, individual	government (PhilRice) 50%
 SLM specialists / agricultural advisors	local community / land user(s) (Farmers' association) 30%
 land users, groups	local government (district, county, municipality, village etc) (LGU) 20%
	Total 100%
	Annual budget for SLM component: US\$ 2,000-10,000

Decisions on choice of the Technology(ies) mainly by land users supported by SLM specialists

Decisions on method of implementing the Technology(ies): mainly by land users supported by SLM specialists

Approach designed by: national specialists

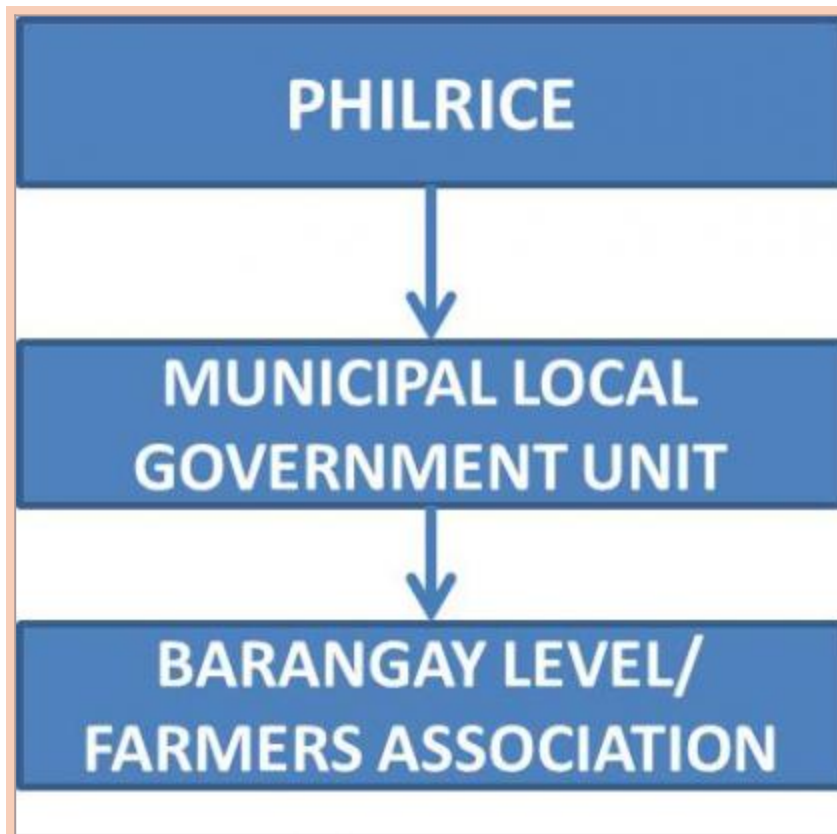
Implementing bodies: government (Philippine Rice Research Institute (PhilRice)), local government (district, county, municipality, village etc) (LGU of Dingras, Currimao, and San Nicolas in the Province of Ilocos Norte), local community / land users (Capasan Achievers Association, local farmers)

Land user involvement		
Phase	Involvement	Activities
Initiation/motivation	Passive	land users were informed about the program through technical briefing/consultation meetings
Planning	Interactive	PhilRice in consultation with the land users and LGUs
Implementation	Interactive	Land users have the option on what technologies they will implement with the technical assistance of PhilRice
Monitoring/evaluation	Interactive	farm record keeping, testimonial during field day and Palayamanan Congress, land user as correspondent during project monitoring
Research	Interactive	land users developed their own on-site research; they presented the results in a research study paper contest during Palayamanan Congress

Differences between participation of men and women: No

Involvement of disadvantaged groups: Yes, great

No prioritization of beneficiaries as long as they are the decision makers in the farm and are willing to practice the Palayamanan.



Organogram: PhilRice introduced and implemented the Palayamanan to one barangay per municipality. The concerned Local Government Unit through its Agriculture Office is responsible to radiate and expand the program to other barangays.

Technical support

Training / awareness raising:

Training provided for land user, field staff/agricultural advisor, Agricultural Extension Workers

Training was on-the-job, demonstration areas, public meetings, site visits / farmer to farmer

Training focused on Farmers Field School (FFS) were conducted to capacitate and inform the land users on various farming technologies (i.e. fertilizer, crop, water, and pest management) and entrepreneurship. Training also incorporated topics on post harvest and farm record keeping. There were also training of trainers (TOT) for farmers on rice production and other crops.

Advisory service:

Name: Advisory through Radio Program

Key elements:

1. Farmers served as correspondents

The extension system is quite adequate to ensure continuation of activities.

Research:

Yes, great research. Topics covered include technology, economics / marketing, ecology

Mostly on-farm research.

Researches were conducted by the Philippine Rice Research Institute (PHILRICE)

External material support / subsidies

Contribution per area (state/private sector): Yes. Subsidies from the government were given in terms of seedlings, training, tools and equipment.

Labour: Voluntary.

Inputs:

- Equipment (machinery, tools, etc): tools. Partly financed

- Infrastructure (roads, schools, etc): greenhouse, training center. Fully financed

- Agricultural (seeds, fertilizers, etc): seeds, fertilizers. Partly financed

Credit: Credit was available. Credit was provided in terms of agricultural inputs (seeds and fertilizers) and is paid in cash after harvest. This payment will serve as revolving fund of the farmers association.

The credit receiver was Credit receivers are land users covered under the approach.

Support to local institutions: Yes, moderate support with financial, training, equipment

The local government was not supportive in the early stage of the program but after witnessing the positive impact in the agricultural sector, they started to finance the establishment of training centers in the barangays. Agricultural technicians from the LGU were active in the sustainability of the program.

Monitoring and evaluation

Monitored aspects	Methods and indicators
bio-physical	Ad hoc observations by project staff
technical	Ad hoc measurements by project staff, land users
economic / production	Ad hoc measurements by project staff, government
no. of land users involved	Ad hoc measurements by government, land users
management of Approach	observations by government

Changes as result of monitoring and evaluation:

There were several changes in the approach.

There were several changes in the technology. Additional technologies were introduced by farmers to improve crop production. Through the evaluation of the performance of the technologies, adjustments were incorporated according to the local conditions and availability of resources in the area.

Impacts of the Approach

Improved sustainable land management: Yes, great; There was a shift in the cropping system from mono cropping to diversified cropping resulted in the improvement soil properties. Through the approach, location specific rice-based farming technologies were developed to address the issue on climate change.

Adoption by other land users / projects: Yes, many; Seventy percent (70%) of the land users within the area adopted the program because of the successful initial program implementation in the locality.

Improved livelihoods / human well-being: Yes, great; Some of the land users who practice Palayamanan, namely Teresita Allado and Honorio Dela Cruz Jr., were named as farmer-scientists or "magsasaka-siyentista". Due to this approach, other programs from government and non-government agencies were introduced and given to the land users. In addition, diversified cropping was practiced thus increasing the income of farmers which was used in the construction of their homes, buying of livestock and acquiring additional land for farming. Land users increased their risk taking ability or investing capacity towards farming.

Improved situation of disadvantaged groups: Yes, great; Farmers were trained as extension workers to serve as resource speaker in training other farmers within their municipality. Through this, their confidence and self esteem, specially, in dealing with other people were developed. The approach introduced cost-saving and yield-enhancing technologies to optimize the farm operation.

Poverty alleviation: Yes, great; The approach provided knowledge, as well as, experience to the land users that was eventually applied in improving their farming system to increase their farm production and income. Diversified farming sustain the farmer's food requirement and also generate income from the different crops and animals grown.

Training, advisory service and research:

- Training effectiveness

Agricultural advisor / trainers: excellent
Land users*: excellent
SLM specialists: excellent

- Advisory service effectiveness

Land users*: excellent

- Research contributing to the approach`s effectiveness: Moderately

The research studies conducted under this approach served as guide in the evaluation of its effectiveness such as in its objective of generating a profitable farming system.

Land/water use rights:

None of the above in the implementation of the approach. Land ownership is not a hindrance during the implementation of this approach, as long as, the farmer is the prime decision maker in the farm.

Long-term impact of subsidies:

Positive long-term impact: Greatly

The subsidy (seeds and fertilizers) was a great help and support for the farmers to start the Palayamanan and to become self-sufficient for the next cropping season. Collected payments for this subsidy served as revolving fund of the association.

Concluding statements

Main motivation of land users to implement SLM:

Increased profit(ability), improve cost-benefit-ratio

Production

Well-being and livelihoods improvement

Sustainability of activities:

Yes the land users can sustain the approach activities without support.

The approach would continue without the support from Philippine Rice Research (PhilRice) since the technologies were successfully transferred to the land users. The land users or farmer-partners recognized the positive impact and outcome of the technologies in their own farm areas. Moreover, farmer-partners were actively involved in the dissemination on the developed location-specific technologies.

Strengths and → how to sustain/improve	Weaknesses and → how to overcome
<p>Strong cooperation among the implementing partners including PhilRice, LGUs, and farmer-partners in the sustainability of the approach through provision of technical assistance, construction of training centers, subsidy in agricultural inputs and other activities related to Palayamanan. → Continuous support and provision of an incentive system for farmers practicing Palayamanan.</p>	<p>No approved budget for the sustainability/exit plan of the program → Institutionalize who will monitor the sustainability of the project</p>
<p>Land users/farmer-partners were empowered since they have the option on what technologies they want to apply/used in their farm. → Revive the conduct of Palayamanan Congress as a venue to share their experiences and knowledge.</p>	<p>Inability to monitor the sustainability of the project due to no funding → Institutionalize who will monitor the sustainability of the project</p>
<p>Good monitoring activity during the implementation stage of the program. → Effective transfer of monitoring to the concerned local government unit.</p>	<p>Sustaining the farmer's participation/attention → Selection/Assessment for identifying the potential beneficiaries</p>
<p>Research studies conducted by the farmers. → Utilize the result of these studies in order to localize and enhance the technologies under the program.</p>	<p>Not fully strong collaboration from other agencies → Develop convergence among concerned specialists and agencies</p>
<p>Land users were empowered due to the participatory approach of the program.They developed location specific technologies and practices and are confident in disseminating the knowledge to fellow farmers. → Meeting with the farmers to obtain their observation/experience on the program.</p>	
<p>Farmers' receptiveness to the technologies under the approach. → If new technologies are to be introduced, it should be easy to apply or practical.</p>	



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