

SWOT ANALYSIS

SWOT analysis is a strategic planning method used to evaluate the Strengths, Weaknesses/Limitations, Opportunities, and Threats involved in the implementation of a project. It involves specifying the objective of the project and identifying the internal and external factors that are favorable and unfavorable to achieve the objectives of the project. Setting the objective should be done after the SWOT analysis has been performed. This would allow achievable goals or objectives to be set for the organization.

- Strengths: characteristics of the project team that give it an advantage over others
- Weaknesses (or Limitations): are characteristics that place the team at a disadvantage relative to others
- Opportunities: external chances to improve performance (e.g. make greater profits) in the environment
- Threats: external elements in the environment that could cause trouble for the project

Identification of SWOTs is essential because subsequent steps in the process of planning for achievement of the selected objective may be derived from the SWOTs.

A SWOT analysis was done for the PIA and the result is as follows:

Strength:

- (1) Strong linkages with line departments for technical guidance.
- (2) Scientific planning with the help of Kerala State Land Use Board.
- (3) State level and District level committees for monitoring, coordination & Co-operation.
- (4) Previous knowledge of convergence with various line departments
- (5) Prior acquaintance of officers with the villagers of selected project area, hence ease in implementation of project.
- (6) Well informed farmers and general public
- (7) Most of the project area is near to the PIA's office.

Weakness:

- (1) Inadequate infrastructural facilities

- (2) Various schemes are being implemented by the PIA with limited human resources.
- (3) Shortage of reputed training centres for capacity building at village level to ensure the proper implementation of the project.

Opportunities:

- (1) A number of different other development schemes of the government are running; so, there can be horizontal integration and convergence of programmes.
- (2) Neighbourhood Groups, User groups and Self Help Groups
- (3) Better financial provision under IWMP, better quality of work can be expected
- (4) Usage of new ICT tools like GIS, GPS and MIS integration of the project with the State Level Data Cell for online monitoring and evaluation.
- (5) Can easily identify and resolve the problems of the area
- (6) Transparency in Accounting System

Threats:

- (1) Rainfall being very scarce and unreliable in the project area, the activities planned to be taken up may yield limited impact.
- (2) Overloaded work may mislead the watershed project or may divert the vision at the time of implementation of the projects of IWMP
- (3) Options in production system are limited due to the lack of sufficient natural resources and due to limited resource base.
- (4) Irregularities in fund flow can derail the smooth functioning.
- (5) Political interference can dissatisfy the team to work properly.

In addition to this seprate SWOT analysis was carried for the different area of intervention for identifying the internal and external factors that are favorable and unfavorable to achieve the objectives of the project. The details are presented in the Table below.

Table. No. SWOT Analysis of Vamanapuram IWMP - 1

Sl. No	Area of Intervention	Strengths	Weaknesses	Opportunities	Threats
1	Agriculture	<ul style="list-style-type: none"> • Provides income and employment • Area potential to increase productivity • Availability of natural/man-made resources 	<ul style="list-style-type: none"> • Lack of irrigation facilities • Lack of organic farming practices 	<ul style="list-style-type: none"> • If provided with proper irrigation, considerable increase in agriculture production can be assured. • Minimal migration in search of jobs. • Increasing demand for organic products. 	<ul style="list-style-type: none"> • Rainfall being very scare and unreliable.
2	Horticulture	<ul style="list-style-type: none"> • Favorable climate for horticultural activities • Good vegetable and banana production 	<ul style="list-style-type: none"> • Lack of advanced varieties. • Lack of marketing facilities. • Lack of storage facilities 	<ul style="list-style-type: none"> • Availability of Land. • Interest of the villagers to expand horticulture activities. • Increasing price level • Food processing. 	<ul style="list-style-type: none"> • Rapid Climate Change.
3	Animal Husbandry	<ul style="list-style-type: none"> • Favourable environment to raise cow and goats. • Many households engaged in Animal Husbandry activities. • Provides income and employment 	<ul style="list-style-type: none"> • Lack of good quality fodder availability. • Lack of advanced cattle breed. • Low level of Milk production. • Lack of Knowledge base regarding scientific cattle management. 	<ul style="list-style-type: none"> • Providing more advanced cattle breeds can increase the milk production and enhance their subsidiary livelihood option. • Promotion of nursery raising and pasture development will address the lack of fodder availability. • Pasture Development. 	<ul style="list-style-type: none"> • Animal Diseases. • Excessive grazing on degraded and small community lands. • Lack of awareness of Dairy farming as a commercial activity. • Severe climatic conditions.

4	Natural Resources	<ul style="list-style-type: none"> • Extensive natural drainage system 	<ul style="list-style-type: none"> • No direct water distribution mechanisms. • Prevalence of soil erosion. • No water storage body present. 	<ul style="list-style-type: none"> • If used advanced techniques like bench terracing more land can be converted into cultivable land. • Construct water storage tank for irrigation. • Provides income and employment for MGNREGS. 	<ul style="list-style-type: none"> • Rainfall being very scare and unreliable.
5	BPL Household's Livelihoods	<ul style="list-style-type: none"> • Most of them are small and marginal farmers. • Some households are having livestock 	<ul style="list-style-type: none"> • Less income and limited livelihood options. • Lack of knowledge base. 	<ul style="list-style-type: none"> • If provided with livelihood options the income level of the households can be increased and the BPL status can be changed. • Quality of life. • Peoples are interested to take up livelihood activities. 	<ul style="list-style-type: none"> • Due to adverse weather conditions the normal working days are very less.
6	Micro-Enterprises and Production systems.	<ul style="list-style-type: none"> • People having the basic skills. • Organized micro-enterprise activities existing in the area • Availability of natural/man-made resources 	<ul style="list-style-type: none"> • Lack of Management skills. • Lack of technical support. • Lack of organized marketing facilities. 	<ul style="list-style-type: none"> • If provided good technical support and motivation, they can run the units in an organized way • Income level will increase. 	<ul style="list-style-type: none"> • Due to adverse weather conditions the normal working days are very less.

PROBLEM TOPOLOGY

Some of the major issues viz., land, water resources, common property resources and drinking water were analyzed and the details are presented below.

Issues	Problem area	Constrains	Solutions	Project support	Likely benefit/beneficiaries
Land	<ul style="list-style-type: none"> • Soil erosion • Productivity • Vegetation 	<ul style="list-style-type: none"> • Undulated Topology • Severe Soil erosion • Uncontrolled Drainage • Heavy run off in the downstream and bank erosion • Un bunded up lands • Poor soil status • Lack of vegetation 	<ul style="list-style-type: none"> • Renovation of WHS • Construction of new WHS • Catchments of WHS will be treated • Renovation of old wells and stone patching • Percolation Tank, LBS, LBCD, Field bunding, masonry check dam, gully plugs in the area. • Plantation of Horticultural crops • LBCD with vegetative barriers, Earthen/ Masonry check dam • Afforestation 	<ul style="list-style-type: none"> • Renovation of existing water bodies • Construction of new water bodies • Different soil conservation measures from ridge to valley • Horticultural and forest species plantation through convergence 	<ul style="list-style-type: none"> • Soil and water conservation • Increase in production • All farmers
Water Resource	<ul style="list-style-type: none"> • Surface water source • Ground water source 	<ul style="list-style-type: none"> • Poor irrigation potentiality of WHS and water bodies • Siltation of water bodies • Erratic rainfall • Lack of vegetation 	<ul style="list-style-type: none"> • Repair of existing water bodies • Creation of new water bodies • Different soil and water conservation measures to recharge ground water • Field bunding • Farm pond and ring wells in the lower reach to tap the ground water 	<ul style="list-style-type: none"> • Repair of existing WHS and ponds • Field bunding and contour bunding • Percolation tank in the upper reach • Ring wells and farm ponds in the lower reach 	<ul style="list-style-type: none"> • Increase in ground water table • Increase production & income • All farmers

<p>CPR</p>	<ul style="list-style-type: none"> • Awareness • Degradation of forest 	<ul style="list-style-type: none"> • Encroached by watershed dwellers • Poor soil status • More prone to grazing 	<ul style="list-style-type: none"> • Mutual solution for possible measures • Pasture land development • Rejuvenation of degraded forest 	<ul style="list-style-type: none"> • Plantation of multiple species through Forest Dept. • Pasture land development for community fodder bank 	<ul style="list-style-type: none"> • Increase the Income of watershed dwells • Meet the basic need like food, fodder and fuel • All House holds
<p>Drinking Water</p>	<ul style="list-style-type: none"> • Drinking water quality • Availability • Low water table 	<ul style="list-style-type: none"> • During rainy season drinking water source get contaminated • Symptom of high level of iron and fluoride content in the water • Open wells get dried during summer due to low water table • Defunct hand pumps • Low ground water table 	<ul style="list-style-type: none"> • Repair of platform with drain and soak pit • Repairing of defunct hand pumps/ wells through local initiatives • Ground water recharge through various water conservation measures 	<ul style="list-style-type: none"> • Water testing of drinking water sources • Well recharging • Rain water harvesting 	<ul style="list-style-type: none"> • All House holds

The Vamanapuram project area has low productivity because of the following reasons:

i) Full dependence on monsoon:

The project area is dependent on monsoon. Water is essential input in agriculture. Due to the absence of proper irrigation facility, 90% of the total cultivated area depends on the uncertain monsoon. Therefore, the success or failure of the monsoon determines the success or failure of agriculture production. The rainfall is unreliable due to two factors: untimely and inadequate.

ii) Low use of fertilizer per unit cropped area:

Farmers do not use sufficient fertilizer due to lack of water, scarcity of fertilizer in market and insufficient money for fertilizer. Many a times they don't get fertilizer at the right time.

iii) Traditional farming methods:

This also leads to low productivity. There is a lot of ignorance about the use of new farming methods and technologies such as multiple cropping. They are Some use of FYM and other input in a proper way; that is why they don't get 90% output. So these factors contribute to low productivity.

iv) Lack of adequate farm machinery:

Even today a large number of farmers in Vamanapuram use wooden ploughs and bullocks. They don't have adequate machinery like seed drill. So, old machineries take more time in tillage practices.

v) Lack of finances for farmers:

In the project area, most of the farmers are marginal and small. They do not have enough money to buy good quality seeds, machinery and other inputs.

vi) Lack of good quality seeds and fertilizers:

Good quality seed, fertilizer and pesticide are important factor in agriculture productivity. The use of good quality leads to higher land productivity. In the project area, however, there are two limitations in the use of fertilizer. First these fertilizers are most useful in irrigated condition. But in the project area, 90 per cent of land depend on rainfall.

vii) Lack of other facilities such as storage and marketing:

4-8% of agriculture product damage after harvesting due to scarcity of proper storage and proper market for sale. So he sells to local traders at the low prices. Farmers

mainly face proper means of transportation. And second problem is farmers don't have proper storage facilities.