
Ref. No. SPADE/WADI/NABARD/2019-20/1510

Dated: 20-12-2019

To
The General Manager
NABARD, RO, Agartala, Tripura

Sub: Submission of DPR for WADI project in Jumpaijala block of Sepahijala district

Dear Sir,

Please find herewith the DPR for WADI project in Jumpaijala block of Sepahijala district for 200 acres of land covering 200 beneficiaries in two patches of land (1st patch 80 acre for 80 Beneficiaries and 2nd patch 120 acres for 120 Beneficiaries). You are requested to sanction the project as early as possible so that we can start our activities in the proposed area.

Thanking you,

Yours sincerely,

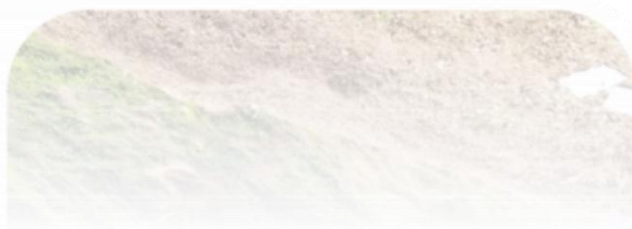


B N Paul

General Secretary

Encl: as stated above

**Detailed Project Report for Implementation of WADI Project at
Jumpajala Block in Sepahijala district, of Tripura under Tribal
Development Fund**



Submitted to:

NABARD, RO, Agartala, Tripura

Submitted by:

Calcutta Society for Professional Action in Development

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Executive Summary

This project is proposed to have WADI programme at Jampuijala Block of Sepahijala district under TDF of NABARD. The PIA (Calcutta Society for Professional Action in Development - SPADE) aims to cover Laxmikanta Para, Haribandhu Para, Gangahari Para, Ishwarma Para, Dhanai Para, Krishna Kumar Para villages in Sangkumabari Autonomous Development Council (ADC) of Jampuijala block under Sepahijala district.

The proposed Programme is focused on “Enhancing the Livelihoods of Tribal Farmers within a span of five years which includes Agro-Horticulture along with other non-farm enterprises “

Initially Jampuijala block of Sepahijala district has been identified for implementation of farm development programme to uplift 200 landed tribal families under Batch-I. Later on additional beneficiaries covering 800 acres for 800 Beneficiaries will be taken up under Batch-II & III. This block is predominantly inhabited by Debbarma tribe. Soil and climatic conditions of this block is ideally suitable for orchard development and vegetable cultivation after assuring water source development and soil conservation work. There are reputed nurseries at Melaghar and Charilam Blocks of Sepahijala district from where Areca nut and orange saplings can be procured for the project. Agartala, Udaipur, Jirania, Champaknagar, Telirama and nearby States like Assam, Manipur have good market both for Areca nut and Orange. As supplementary activities, Goat rearing, Duck rearing and different vegetable cultivation will be promoted among the women members of the target farmer families.

The main objective of farm development programme through the proposed project is to enhance the livelihoods of the farmer, farmers' income and to improve the quality of life of 200 tribal families through small orchard development support in upland in batch 1 and then gradually 800 more tribal families will be added for covering 800 acre land in two batches of 400 each. Besides, animal husbandry, vegetable cultivations etc. shall also be promoted to enhance their income.

Tribal farmers having land holding up to 5 acres have been selected under farm development programme and the maximum coverage of plantation per family would be limited to 1 acre. However, the focus would be to develop at least 1 acre of WADI per tribal family.

- Creation of irrigation infrastructures and vegetable cultivation as intercrop for all the WADI families will ensure sustainable growth of annual income of Rs.25000- 30000/- for 200 WADI farmers in 200 acres land under Batch-I.
- The proposed project focused on, Poultry, duckery & Non Timber Based Forest products like Turmeric, Ginger etc. and marketing in a organized manner though promotion of Livelihood collectives.
- To undertake the marketing and input supply to the beneficiaries, a Producer Company will be formed. This company will ensure to provide marketing facility to farmers in sustained manner for selling their product.

Calcutta Society for Professional Action in Development (SPADE), a professionally managed NGO is operating in West Bengal and Tripura since the last 25 years. A team is also working for successful implementation of SHPI project of NABARD in the same district since last 2years.

For each of the families, a farm of maximum 01 acre will be developed, consisting of 265 numbers of Areca nut plants and 41 no. of Orange plants.

The initial cost of orchard development for one acre farm is Rs. 76046/- of which Rs. 49566/- is sought as grant and Rs. 26480/- is to be contributed by the farmer. The input cost of Areca nut & Orange cultivation for the first five years is proposed from NABARD's support, and thereafter the cost will be contributed by farmers themselves.

Net income per year from a farm of 1acre Areca nut and Orange orchard with programme intervention is arrived at Rs 65087/- after 4th year it will increase year to year. The programme for 1 acre of vegetable cultivation provides an incremental income of Rs. 66950/- from 1st year onwards.

The implementation of core activity i.e. farm development shall be confined to only three batches viz. (1st batch: 200acres; 2nd batch 400 acres and 3rd batch of 400 acres) to cover 1000 families for orchard as per our time line attached.

The total project cost worked out to Rs. 1212.255/- lakhs, beneficiaries' contribution Rs.150.88/- lakhs in the form of labour and kind by the beneficiaries, Bank loan Rs. 96/- lakhs and convergence Rs. 451.75/- lakhs etc. NABARD will be funding of Rs. 513.61/- lakhs as grant assistance. The project envisages maximum community contribution to ensure ownership of the project.

1. Introduction

Calcutta Society for Professional Action in Development (SPADE) initiated the WADI approach of development in ADC areas of Jampuijala block of Sepahijala district covering 200 acres of WADI Plantation in batch-I covering 10 villages, 200 households, families where there is density of Tribal population is very high and there is scope for development of WADI. The proposed targets for five years project are 200 acres in 1st year (2020-21), 400 acres in 2nd year (2021-22) and 400 acres for 3rd year (2022-23).

Sl No	Name of the Village	ADC	Total Tribal Families having less than 5ac land	Total Selected Families	Area in acre
1	Bishukumarpara	Sangkumabari	93	93	169.5
2	Dhanaipara	Sangkumabari	5	5	8.58
3	Gangaharipara	Sangkumabari	13	13	26.02
4	Haribandhupara	Sangkumabari	4	4	7.35
5	Iswarnapara	Sangkumabari	41	41	71.46
6	Krishnakumarpara	Sangkumabari	6	6	7.7
7	Laxmikanta para	Sangkumabari	16	16	29.29
8	Makhansardarpara	Sangkumabari	2	2	3
9	Mohendrapara	Sangkumabari	3	3	6
10	Subinpara	Sangkumabari	17	17	19
	Total		200	200	347.9

2. Project Area

Sl No	Particulars	Details																						
1	Families to be supported (no)	560																						
2	Project area proposed village nos. and names	10 nos. <table border="1"> <thead> <tr> <th>Sl.No.</th> <th>Name of village</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Laxmikanta para</td> </tr> <tr> <td>2</td> <td>Haribandhupara</td> </tr> <tr> <td>3</td> <td>Gangaharipara</td> </tr> <tr> <td>4</td> <td>Iswarnapara</td> </tr> <tr> <td>5</td> <td>Dhanaipara</td> </tr> <tr> <td>6</td> <td>Krishnakumarpara</td> </tr> <tr> <td>7</td> <td>Bishukumarpara</td> </tr> <tr> <td>8</td> <td>Subinpara</td> </tr> <tr> <td>9</td> <td>Mohendrapara</td> </tr> <tr> <td>10</td> <td>Makhansardarpara</td> </tr> </tbody> </table>	Sl.No.	Name of village	1	Laxmikanta para	2	Haribandhupara	3	Gangaharipara	4	Iswarnapara	5	Dhanaipara	6	Krishnakumarpara	7	Bishukumarpara	8	Subinpara	9	Mohendrapara	10	Makhansardarpara
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7	Bishukumarpara																							
8	Subinpara																							
9	Mohendrapara																							
10	Makhansardarpara																							
3	Average Annual Rainfall (mm)	2146 mm Source: IMD																						
4	Temperature (min to max in 0C)	Minimum: 19.7 0 C Maximum: 30.5 0C Source: IMD																						
5	Av. land holding (ac)	1.76 Acre																						
6	Average slope in project area (%)	5-15%																						
7	Soil type	Inceptisols, Ultisols, Alfisols																						
8	Major crops cultivated in project area	Paddy, Rubber, Vegetables (Brinjal, Ladies Finger, Pumpkin, Chilly, Bitter Gourd, etc.)																						
9	Total population in the project area	516																						

10	Tribal population in the project area and % to total Population	100
11	Major tribes	Debbarma

Profile of the Area

Parameters	Patch 1	Patch 2
Lat - Long	23.74371691 N & 91.5029024 E	23.74457499 N & 91.51125647 E
Area	80 acres	120 acres
Perimeter	3028 Meter	3626 Meter
Altitude	75 mtr MSL – highest point	110 mtr MSL – highest point
Slope	<ul style="list-style-type: none"> • 15 acres less than 5% • 55 acres 5 – 55 % • 10 acres more than 15% 	<ul style="list-style-type: none"> • 23 acres less than 5% • 82 acres 5 – 55 % • 15 acres more than 15%
Water Resource	<ul style="list-style-type: none"> • Boring Depth – 200 ft BGL • Pump Setting / submercible – 2 HP 100 ft BGL • Total pump – 4 	<ul style="list-style-type: none"> • Boring Depth – 200 ft BGL • Pump Setting / submercible – 2 HP 100 ft BGL • Total pump – 2 nos • Open water source – Ground Level – round the year – total 3 nos
No of beneficiaries	80	120

4. Socio-economic status of selected tribes:

100% of the population in the project area belongs to Debbarma tribe. Debbarma is the surname of Tripura Clan from Tripura or the title generally used by the Kokborok-speaking (Tibeto-Burmese) Tripura people, the indigenous people of Tripura. This is one of the cases where use of a surname reflects ethnic or community membership. The Debbarmas are the majority communities of a state called Tripura till the Princely state Tripura merged with Indian Territory. The major occupation of the community is agriculture, pig rearing and wage earning. All the families are deprivation of common necessities that determine the quality of life, including food, clothing, and shelter and may also include the deprivation of opportunities to learn, to obtain better employment to escape poverty. The literacy rate is 62.71 % (source: Census: 2011).

5. Problem Analysis

Problem Description:

I. Major constraints faced by the community:

Low food production from land, lack of alternative livelihood opportunities and growing health and education expenditure are the biggest problems faced by the Debbarma community. Agriculture contributes to the household food requirement from 5 to 6 months a year and for the rest of the period, they depend on supplementary sources like pig rearing and wage earning which usually fall short to meet their minimum requirements. Climate change or rather its consequences has also impacted on agricultural productivity. Besides, low crop yields are attributed to subsistence nature of farming, adoption of poor crop production technology and non-use of key agricultural inputs like HYV seeds, fertilizers, pesticides, farm implements, irrigation, Besides, there are also problems like soil erosion and land degradation, erratic rainfall, lack of measures to use rain water properly and regular crop failures due to seasonal climatic

aberration. Besides these there is a lack of knowledge on value addition in agri-products, poor market access and even no alternate income generation activities are there to fall back on.

II. Some other contributory constraints are given below:

Soil erosion and land degradation: - As the terrain is sloppy (5-15 %) the top soil is getting eroded due to surface runoff of rain water results in low fertility. The Debbarma community is constrained to take measure in arresting the top soil (vegetative cover) due to lack of disposable cash. Land resources are degrading at an alarming rate due to non-scientific land husbandry practices and failure of mainstream to reach out to those communities with modern technologies.

Erratic Rainfall and lack of measures to use rain water properly: - People faces problem in immediate passed monsoon period to sustain delayed main crops or vegetables due to erratic rain fall during monsoon. In case delayed rain, there is hardly any scope left for.

Consequences of adopting of mono crops (Rain fed crops): - Since Sangkumabari has a hilly terrain, on an average 50% of the total precipitation and almost 99 % of runoff drains out of the area during the four monsoon months leaving the area dry for the rest part of the year. This has badly affected the survival and growth of the local flora and fauna. This has ultimately arrested the growth of the local social systems and limited the capacity to invest for multi cropping.

Low crop productivity and cropping intensity: - Improper land husbandry in cultivable land has depleted the top soil and moisture regime. This has resulted in gradual degradation of their resource base i.e. their control and access over land, water and forest. In many places because of development projects there is a increase in labour demand. In search of cash income many families have adopted rubber cultivation but the profitability for the same had gradually eroded. It resulted squeezing the crop area and letting the area remain fallow. They have come to a situation where they are in possession of sloppy lands (most of the situation it is viewed as encroachment though they are enjoying these lands for quite a long time). The productivity of these lands is low and the agriculture is subsistence oriented.

III. No alternate income generation activities:-

They are rearing pigs but most of the cases they are compelled to sell their livestock during family crisis in throw away price to save life. Due to lack of technical knowledge on off farm activities, they are facing problem to find alternative source of income apart from wage labour.

IV. Poor market access:-

The livelihood of people is primarily dominated by agriculture economy, where market plays a minimum role. But over the years because of various developmental efforts their system has come under the domain of market economy. But, there is no proper market facilities for the local people except two local hats namely Sangkumabari and Briddhi Bazar where they often exploited by middlemen. They are constrained to sell the products in low price as they need cash. Communication problem also creates barrier in accessing better markets. Besides, the community is lacking the process of value addition in their produce and as such fail to fetch the remunerative price.

Low food production from land, decrease availability of Non Timber Forest Produces and growing health expenditure are the biggest problems faced by the Tribal community. In the proposed WADI project area. Agriculture contributes to the household food requirement from 3 to 4 months a year and for the rest of the period, they depend on selling of wood, livestock and working as wage labour. Rapid forest degradation in last two decade and climate change has impacted availability of NTFP which was a major source of livelihood for Tribal community.

Low crop production are attributed to subsistence nature of farming, adoption of poor crop production technology and non-use of key agricultural inputs like HYV seeds, fertilizers, pesticides, farm implements, irrigation, and degraded natural resource base. Besides, there are also problems like Low land holding size, soil erosion and land degradation, erratic rainfall, lack of measures to use rain water properly and regular crop failures due to seasonal climatic aberration. Besides these there is a lack of knowledge on value addition in forest and agri-products, poor market access and even no alternate income generation activities is one of the major challenges face by the community.

V. Soil erosion and land degradation-

As the terrain is sloppy (5-10 %) the top soil is getting eroded due to surface runoff of rain water results in low fertility. The Tribal people are constrained to take measure in arresting the top soil (vegetative cover) due to lack of disposable cash. Forest and land resources are degrading at an alarming rate due to non-scientific land husbandry practices and failure of mainstream to reach out to those communities with modern technologies.

VI. Lack of adequate infrastructure for irrigation-

Although, the area has around 2146 mm of rainfall. The irrigation coverage is much less. There is also small Water body and also water is available in the ground at a depth of 75 ft rivers where water can be lifted and irrigated. There is a need to harness the potential to enhance the crop productivity through assured irrigation. In addition to the low resource base and its poor condition, there is a need to improve the agricultural practice of the project area. The areas like seed change, transplantation and its timing, weeding, crop rotation etc. need to work upon in order to enhance the productivity of almost all the crops the farmers are cultivating.

The productivity of the crops can be doubled through systematic intervention on better land and water management and improved agricultural practices.

VII. Lack of Access to Government Resources-

The developmental and social security measures implemented by the Government have little access to the area as the people have little knowledge about the schemes. But gradually the situation has improved and the accessibility to the government programme has been increased within the project period. More people are being covered under the Sanitation, Pradhan Mantri Awas Yojana, Old Age Pension scheme, the PDS system and social security scheme has been strengthened to some extent. Still now, it has not come to a satisfactory level to fulfill the aspirations of the people.

VIII. Malnutrition and community health

Health care, family welfare, drinking water, housing and sanitation services are relatively very poor. Malnutrition, ill health affects the working capability and productivity. Mortality rate is high because of ignorance of tribal. The Govt. facilities have been increased by organizing immunization camps and vaccination camps for cattle. The reproductive child health system has also improved by various awareness measures taken.

6. Project Implementing Agency

Calcutta Society for Professional Action in Development, popularly known as SPADE, was established in Calcutta in 1994. It provides technical and managerial support services to different developmental stakeholders. During the last decade, SPADE has established itself as a household name in the field of livelihood promotion and institution building for the poor and marginalized. The organization is particularly focussed on promoting climate sensitive income generating activities amongst the rural poor on behalf of clients like different Government Departments, NGOs and Corporate houses.

The organization at present, is operational in Purulia, Bankura, Purba Medinipur, Nadia, Murshidabad and Dakshin Dinajpur District of West Bengal; Sepahijala District of Tripura and Paschim Singhbhum of Jharkhand covering more than 254090 families. SPADE has facilitated formation of women self help groups, capacitated the groups to enhance the income of the members through climate sensitive activities.

As such, we have not yet implemented TDF project, but we have the experience of implementing different projects in regard to various components of environment and natural resource management. The activities are furnished below.

- a) **Afforestation:** Promoted and build awareness among flood prone area of Ratua II - Malda, Kandi – Murshidabad and Nabadwip – Nadia under community based disaster preparedness programme supported by UNICEF. Promoted awareness on Conservation of Forests for the SHG members in West Tripura district supported by Stock Holding Corporation of India.
- b) **Pasture Development:** Goat rearing training along with steps to be followed for successful grass land improvement etc. was imparted among 600 SHGs women in Pancha and Manabazar – I block of Purulia district. As a result soybean cultivation and consumption etc. has increased among the beneficiaries in our operational area.
- c) **Horticulture:** Provided training on horticulture and Agro Farming in Short Term Vocational Training program under West Bengal State Council of Technical Education.
- d) **Soil conservation:** The practice of Boundary plantation under agro-forestry program includes trees planted along boundaries on bunds across the slope in such a way for prevention of soil in holding the soil against erosion and improving soil fertility are being implemented taken place in a few pockets of SPADE operational area of Bankura and Purulia district.

SPADE provided training on Vermin Compost for the farmers at Murshidabad and East Medinipur districts supported by Swarojgar and TPCDT.

- e) **Water Conservation:** Few water saving techniques in agriculture are being used in SPADE operational area. Farming techniques like the use of mulches, residue management in crop fields, etc are helpful in retaining soil moisture for crop production. We are practicing the same in our operational area.

SPADE provided technical input **to excavate about 30 tanks** in Sutahata Block of East Medinipur district and Habibpur block of Malda district with a view to make surface runoff percolation and recharge the ground water storage.

- f) **Agricultural Extension:** Promoting Sustainable Agriculture using modern techniques like SRI, Vermin Compost, Bio-Pesticides, etc. Also, SPADE capacitates the community

in promoting Fishery, Goatery, Poultry, Duckery, etc. as a means of livelihoods promotion of the SHG members through adoption of integrated farming systems

SPADE is working with community based organizations particularly with SHGs for the development of people. It has strong commitment for sustainable development through capacity building and community participation towards establishment of an equitable society and has been adopting the strategies that are feasible, workable and sustainable. SPADE team consists of 63 members of various backgrounds and streams which include Management professional - 3, Rural Development managers - 3, Institutional Development Expert – 8, Engineers - 02, Dairy Technologist – 01, Finance Managers - 02, Software professional- 2 and other Field functionaries - 42 with a gender ratio of 52 : 48 men and women. Most of the staffs are working in this organization for more than 10 years and staff benefits scheme includes EPF and ESI. Technical experts are also involved as advisors & Resource persons as and where necessary.

5.1 Partnership with Institutions

Sr	Organization	Role of Organization in the Project
1	Calcutta Society for Professional Action in Development (SPADE)	Project Implementing Agency
2	Horticulture / Agriculture Department / Animal Resource Development Department	- Providing Technical Advise / services on production of Areca nut and Orange - Providing subsidy on irrigation project - Training support to the project staff and WADI farmers - Marketing support
3	Renowned Selected Nurseries in Tripura	- Supply of Planting Materials - Providing need base support at the farmers' level
4	National Bank for Agriculture and Rural Development	- Providing funds - Monitoring of the project - Providing necessary guidance
5	Tripura Rural Livelihood Mission (TRLM)	- Providing capacity building support to women members of the farmers' families
6	Health and Family Welfare Department	- Extension service

7. Project Implementation Schedule

The project implementation will have four phases such as:

Phase-I - Preparatory phase

- ❖ Base line and selection of area.
- ❖ Formal agreement with PIA
- ❖ Mobilization/recruitment of staff and deployment
- ❖ Baseline survey
- ❖ Soil Testing

Phase-II – Final Planning

- ❖ Detailed plan of operations
- ❖ Program awareness campaign
- ❖ Planning and design
- ❖ Tendering and awarding contracts
- ❖ Final Identification of WADI farmers

Phase-III – Implementation

- ❖ Setting up of Offices
- ❖ Formation of WADI groups
- ❖ Water resource development
- ❖ Capacity building of staff, WADI participants
- ❖ WADI implementation
- ❖ Soil and water conservation
- ❖ Health promotion scheme
- ❖ Formation of Livelihood Collectives

Phase-IV – Monitoring and Impact Evaluation.

The project implementation schedule is based on the project components and phasing of the implementation. MIS will be developed and review meeting will be held at a monthly interval.

8. Programme Components

The WADI project is targeted to cover 200 tribal families having total 200 acres of land and selected the beneficiaries as per the criteria provided in Operational Guidelines of TDF under batch I . The project will be covered through plantation in seven years from the date of implementation.

9. Objectives:

Followings are the basic objectives of the project:

- ❖ To enhance the livelihoods of the selected farmers and ultimately to improve the quality of life of 200 tribal families through small orchard development support under batch –I .
- ❖ To develop wastelands/degraded lands keeping in view the capability of land, site conditions and local needs.
- ❖ To promote the overall economic development and improving the socio-economic condition of the resource poor and disadvantaged sections inhabiting the project area.
- ❖ To ensure supplementary income among the women folk of the selected farmers' families by undertaking Poultry, Duckery and vegetable cultivation and Non-forest timber based activities.

10. Interventions:

The core interventions of the programme will be,

- ❖ Establishment of orchard of the selected fruit crops in the upland
- ❖ Utilization of border of the orchard for planting of multipurpose forestry and economical species to meet the fodder and firewood requirement of tribal families thereby reducing their dependency on forest.

- ❖ Adoption of in situ soil conservation measures to arrest further degradation of soil and shaping of the land to make it suitable for establishment of orchard.
- ❖ Development of water resources individually or on community basis to provide protective irrigation for fruit plants, and intercropping.
- ❖ Adoption of improved farming techniques, by capacity building of the participating farmers through technology interventions, training, and exposure visits etc. to improve the crop productivity, production and quality of the produce.
- ❖ Promoting Animal Husbandry and Vegetable cultivation as supplementary income.
- ❖ Introduction of value addition and marketing of land based produce
- ❖ Organizing health camps
- ❖ Promotion of village institutions, processing through Livelihood collectives and promotion of the products of the project under common brand for marketing

11. Livelihood development component



Orchard based livelihood:

The various interventions proposed under WADI are indicated below:

- i. **Agri-Silvi-Horticulture:** For each target family at least, 1.0 acre of land will be developed to create an orchard (WADI), the maximum coverage under this programme would be one acre.
- ii. **Selection of crops:** Areca nut will be suitable in the project area for orchard development in 0.5acre of upland along with orange in 0.5 acres of land.

Crops	Varieties	Spacing	Area covered out of 1 acre land for plantation	No of Plants
Areca nut sapling	Areca HYV Badarpur	2.75 Metre x 2.75 Metre	50% i.e. 2023 Sq.metre	265
Orange sapling	Khasi Mandarin	7 Metre x 7 Metre	50% i.e. 2023 Sq.metre	41

Total cost proposed by RO per Wadi is Rs.76046/- including grant of Rs 49566/- and family contribution of Rs 26480/-

iii. Tree Matrix & WADI Plot Layout

The field, sunshine, water availability, soil type etc were taken into consideration. Pillar with net wire will be used for fencing specially to cover 200 acre land under batch-I. Spacing between the plants had been taken care of keeping in view of the spacing need of the varieties taken for planting. The figure below shows a layout for planting.

Layout of Different types of tree Plantation in a WADI plot of 1 acre at Sangkumbari ADC

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Orange plants (○): 41

Areca Nut (¥): 265

Inter-cropping

In both rainy and winter season, Brinjal, Beans, Chilly, Tomato, Pulses are to be cultivated and in summer season, vegetable like Brinjal, Chilly, ladies finger, Pumpkin, Gourd, badbadi, Pulses etc are to be cultivated. Further Non-timber based forest products like turmeric, ginger etc are also to be explored to enhance their income.

Factors to be considered for selection of intercrops:

- The need of the family and market demand
- Suitability of the crops to existing climate-edaphic situation
- The intercrops should not have any allopathic effect
- The crops should not compete with the main crop (Areca nut and orange) for nutrient, water and light
- The crops should have soil regenerating ability (Nitrogen fixing legume crops)
- The crops should have good foliage coverage and hence can reduce soil erosion

The details of Inter-cropping:

Sl. No.	Season	Crops	Scale of Finance per ha	Area in 1 kani	Cost	Production in qtl	Price per kg (Rs.)	Total income	Net income
1	Rainy	Brinjal	110780	800	8900	24	20	48000	39100
2		Beans	121870	400	4900	3	20	6000	1100
3		Chilly	121870	400	4900	4	20	8000	3100
4		Tomato	161948		0			0	0
5		Pulses	121870		0			0	0
6	Winter	Brinjal	110780	800	8900	24	20	48000	39100
7		Bean	121870	400	4900	3	20	6000	1100
8		Chilly	121870	400	4900	4	20	8000	3100
9		Pulses	121870		0			0	0
10	Summer	Brinjal	110780	800	8900	24	20	48000	39100
11		Chilly	121870	400	4900	3	20	6000	1100
12		Pumpkin	121870	400	4900	12	10	12000	7100
13		Pulses	121870						
		Total			56100			190000	133900

Reasons for Selection of Crop & Variety Areca nut and Orange:

We have identified the above horticulture plants after getting feedback from the villagers in large Villages meeting organized by us. Then considering the suitability of the land and weather condition and including the marketing aspect of the produce, we have finally decided for plantation of Areca nut and orange plants.

- **Varieties:**

Areca nut: HYV Badarpur

Orange: Khasi Mandarin

- **Planting material:** Planting materials up to the age of 2 years in the form of sapling will be procured from renowned Nursery in Sepahijala district.

Preparation of Land: The land should be ploughed thoroughly and leveled in case of agricultural lands. In case of forestlands, the jungle should be cleared well in advance and the debris burnt. After clearing the jungles, land is to be terraced or bunds constructed on sloppy land. In order to ensure better moisture conservation, soil trenches are dug across the contours. The cost of land preparation will vary depending upon the type and method of soil working. The land preparation work should be completed prior to the onset of monsoon season i.e. during May – June.

Layout: Areca nut trees are generally planted with a spacing of 2.75 meter X 2.75 meter which is recommended by expert. The spacing for Orange plantation is 7 meter X 7 meter which enables higher returns during initial years. In case of sloppy lands, the triangular system of planting is recommended to accommodate more plants without affecting the growth and development of the trees. In undulating areas, the planting should preferably be done along the

contours, with cradle pits or trenches provided at requisite spacing in a staggered manner to arrest soil erosion and help moisture conservation.

Digging and filling of pits: The work of digging of pits has to be completed much in advance (May – June). The pit size for Areca nut will be 90 cm x 90 cm x 90 cm whereas the pit size of orange is 50cm x 50cm x 50cm. Burning of the debris and forest wastes inside the pits before planting is advantageous. The pits are then filled with topsoil mixed with farmyard manure or compost or poultry manure with required amount of Urea, Single super phosphate, potash, micro nutrient and PPC etc.

Planting: The plantation will be done at the onset of monsoon. If the monsoon rains are inadequate, one or two pot irrigation can be done during the initial stages to ensure establishment.

Manuring and fertilization: As per the requirement, the manuring and fertilization will be done in time to ensure the growth of the plants and also reduce the mortality of the plants.

Weeding: Weeding with a light digging should preferably be done before the end of rainy season. Hoeing, cutting the weeds off underground is more effective than slashing.

Training: During the implementation of the programme, skill training will be organized for all beneficiaries on Horticulture plantation, maintenance of the plants and also on vegetable cultivation programme. Besides some supplementary activities like Poultry, Duckery and cultivation of some Non-forest timber based products will also be promoted and the concerned beneficiaries will be provided skill training on the above activities. Further handholding support on horticulture, vegetable cultivation and Animal Husbandry activities will be provided to the concerned beneficiaries throughout the years.

Fertilizer Application:

Normally compost, vermin-compost, other bio-fertilizer, Urea, Single Super Phosphate (SSP), Potash and Plant protection bio-chemicals, Growth Regulator and micronutrient need will be applied. The quantity of the said materials to be used for five years from the date of plantation is already depicted.

Item	Unit	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
		Qty	Qty	Qty	Qty	Qty	Qty
FYM/ Vermin compost/ Bio-fertilizer	Kg	30	0	0	0	0	30
Urea	Kg	8	11	11	11	11	52
Single Super Phosphate (SSP)	Kg	5	9	9	9	9	41
Potash	Kg	2	0	0	0	0	2
Plant protection bio-chemicals, Growth Regulator and micronutrient need based- per kg	Kg	2	0	0.00	0.00	0.00	2

Post-Harvest Management:

- **Preservation of Areca Nuts:**

Fully ripe areca nuts after preserving are used throughout the year. These are quite very popular in Kerala and Assam. In Assam, fresh fruits are preserved in thick layers of mud. This product is known as Bura Tamul. Use of a solution containing sodium benzoate (0.1 %) and potassium metabisulphate (0.2%) acidified to a pH of 3.5-4.0 with hydrochloric acid for steeping ripe nuts

after initial heat blanching is suggested to eliminate the foul smell and improve the quality of nuts.

- **Dried ripe nuts:**

The most popular trade form of areca nut is dried whole nut known as Chali or Kottapak. Ripe nuts are dried in the sun for 35-40 days, dehusked and marketed as whole nuts. The optimum moisture content is around 12%. Inadequate drying results in fungal infection and in a poor quality product. Depending on size, different grades of decrease order are Moti, Srivardhan, Jamnagar and Jini. To facilitate drying and dehusking, the fruits are cut longitudinally into 2 halves and sun-dried for 10 days. The kernels are scooped out and given a final drying. Mechanical driers are also used to make Chali. Drying takes 60-70 hours over a period of 7-8 days at 45° - 75°C. The dehusking can be done using a manually-operated areca nut dehusker developed by CPCRI, Kasaragod. About 40 kg chali can be made within a period of 8 hours.

A method of preserving fresh ripe nuts by steeping in mixed preservative solution has been developed to avoid the problems encountered during the preservation of fresh ripe nuts in garden fresh condition. It consists of washing freshly harvested areca fruits in chlorinated water to remove adhering dirt. The fruits are then blanched in boiling calcium chloride (0.2%) solution. This treatment reduces microbial load, destroys enzymes and preserves the firmness of husk. The fruits are then immersed in solution containing 0.1% sodium benzoate and 0.2% potassium metabisulphite acidified to a pH of 3.5 to 4.0 using hydrochloric acid. The fruits can be preserved in fresh ripe condition for 10-12 months.

- **Preservation of oranges**

Oranges are considered to be acidic but their pH can vary significantly depending on their degree of maturity or ripeness as well as their variety. In general, the more ripe orange, the higher is the pH. The pH value varies from 3.6 to 4.3

Containers for Freezing: Glass jars and rigid plastic containers make good freezer containers. Wide and narrow mouth canning and freezing jars are available. The glass in these jars has been tempered to withstand heat and cold. Glass jars not designed for freezing can easily break in the freezer. Most plastic bags made for freezing also work well.

Syrup Pack: Pack orange pieces into containers. Cover fruit with cold, heavy syrup made with excess fruit juice or water. Keep the orange pieces submerged in the syrup by placing a small piece of crumpled waxed paper on top of the fruit in each container. Seal the container leaving an appropriate space for expansion.

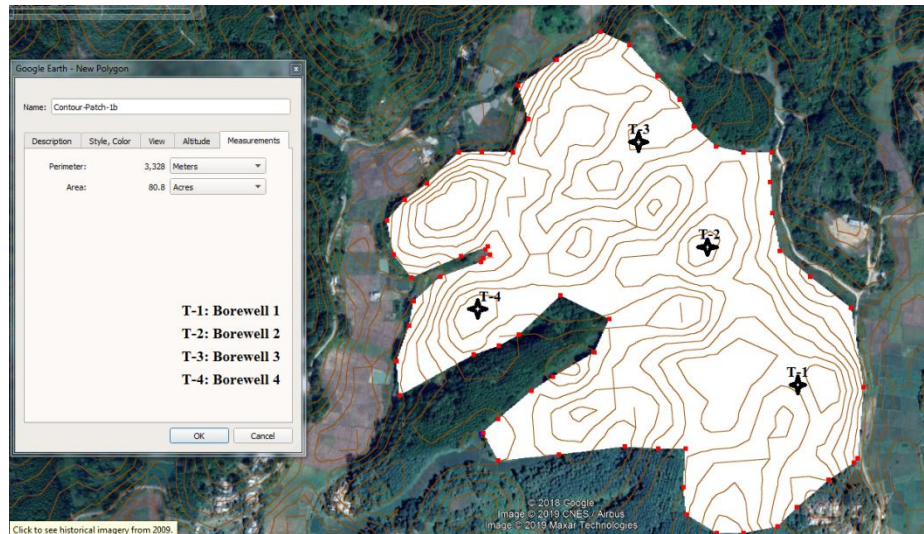
12. Irrigation:

Young plants are watered frequently for proper establishment. In case of grown up trees, irrigation at 10 to 15 days interval from fruit set to maturity is beneficial for improving yield. However, irrigation is not recommended for 2-3 months prior to flowering as it is likely to promote vegetative growth at the expense of flowering.

To ensure the irrigation facility of the said patches, the following systems are adapted.

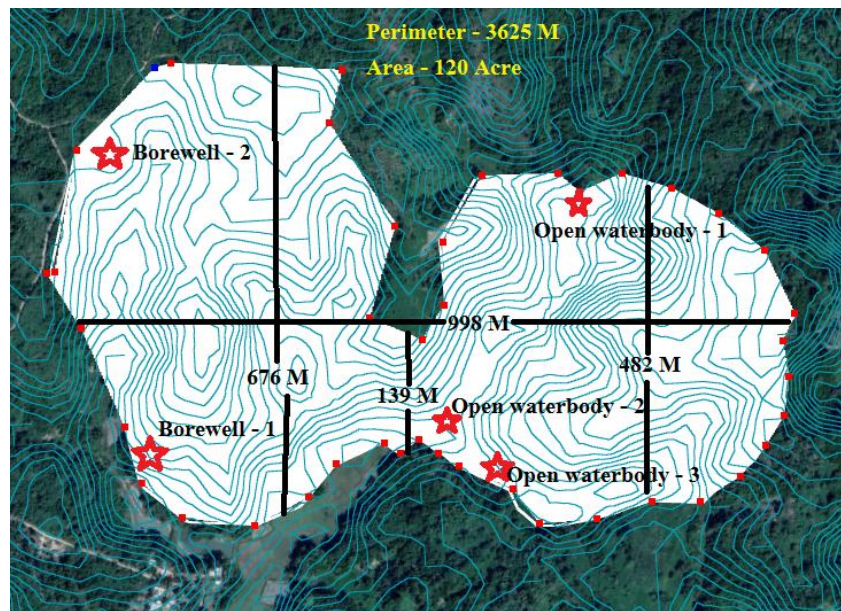
- **For 80 acres land of Laxmikantapara patch:**

4 (four) nos. of Solar submersible motor pumps (2HP each) and 6” diameter boring are to be installed on the toe of the low hills. Pumps are placed in North side, South side, North - East and South West portion of the land within the areas. 4 nos. of 5000 liters capacity poly materials overhead storage tanks are to be placed nearby the side of each pump, over masonry structures. Distribution of water from these storage tanks throughout the areas by means of 50mm dia PVC main pipes and 25 mm diameter PVC branch pipes throughout the total areas of 80 acres of land in Laxmikantapara patch will be done as and when required.



- **For 120 acres of land for Bishukumar para patch:**

3 nos. of natural water bodies (Ponds) are available in the sites of this patch, near the toe of the low hills. It is observed that these ponds are full of water throughout the year and water will be lifted by using three numbers of Solar uplift pump (2 HP) and 3 “ diameter suction pipe. From these ponds, irrigation may be done more or less for 70 acres of land. Remaining 50 acres of land may be irrigated by 2 nos. of Solar submersible motor pump (2HP) placed at the toe portion of this patch at different places.



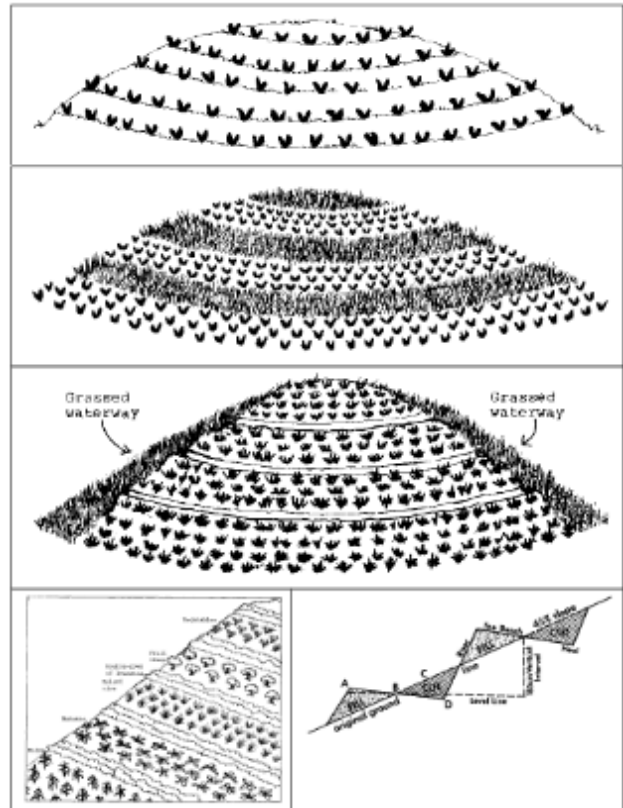
For storing of irrigation water, 5 nos. of 5000 liters capacity each overhead ploy material storage tanks are to be placed over masonry structures at nearby sites of 5 nos. of pumps.

Distribution of water from these storage tanks by means of 50mm dia PVC main pipes and 25 mm diameter PVC branch pipes throughout the total areas of 120 acres of land in Bishukumar para patch will be done as and when required.

13. Soil conservation for 200 acre land:

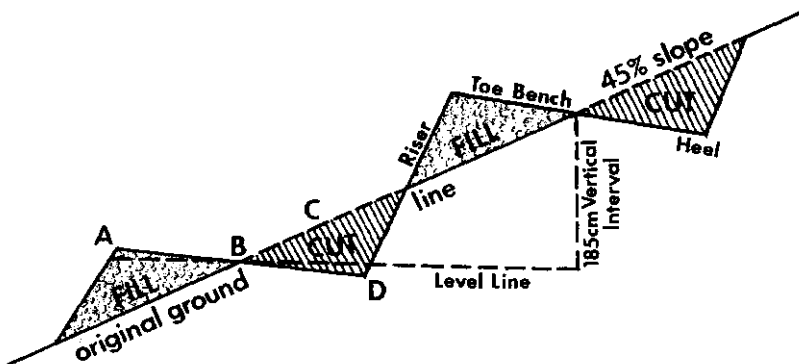
Soil and water conservation assumes greater importance as the orchard would be developed in the upland which are mostly degraded and have low fertility. The high run off has washed out the top soil leading to low fertility coupled with less soil moisture for crop production. Cultivation crop both in summer and winter seasons is the prevailing cropping practice in the project area.

The project area is a part of Baramura anticline and Agartala syncline, located towards western slope of Baramura anticline. The land is broken by low hills and tillas 40-75 meters of elevation covered with trees and shrubs. Rainy season started from May, the annual rainfall varies in between 1800 – 2200 mm. Most of the rain comes during the month of April to June and July to September. As the texture of the soil ranges between loami to clayey, during the heavy rain fall in the project areas soil may be eroded from the top and side of the hilly portion. To stop this erosion some soil conservation works should be done. Considering the site condition five types of Soil Moisture Conservation (SMC) works are consider in the WADI project area of 200 acres.



For Soil Moisture Conservation work for patches:

The project area WADI project under batch-I is 200 acres land out of which 80 acres land under Lakshmikantapur Patch.



Average slope up to 5% of 15 acres area

Average slope 5-10% of 40 acres area

Average slope 10-15 % of 15 acres area

Above 15 % slope 10 acres area

For 120 acres land under Bishukumar Para Patch:

Average slope up to 5% of 23 acres area

Average slope 5-10% of 52 acres area

Average slope 10-15 % of 30 acres area

Above 15 % slope 15 acres area

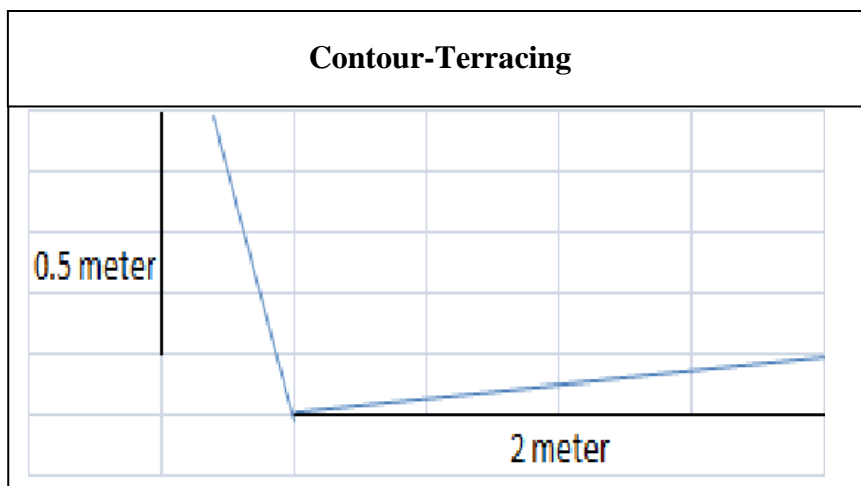
For soil conservation work for the above plots, following methods are adopted for different slope of land as and where necessary.

Up to 5% slope:

- Trench cum Bundh around the field
- Field bundh within the plot.

For 5-10% slope:

- Trench cum Bundh around the field
- Field bundh within the plot.
- Continuous contour bundh



For 10- 15% slope:

- Trench cum Bundh around the field
- Field bundh within the plot.
- Continuous contour bundh

For above 15% slope:

- Continuous contour Trenching.
- Tree platform.

Detail cost on soil conservation work for 200 acres WADI

	Slope	<5%	5-10%	10-15%	>15%	Total		
	Area (ac)	38	92	45	25	200		
Sl. No	Treatment	Qty (cum/nos)	Rate (Rs)	Area in ac	Total cost	Beneficiary contribution (25%)	Govt. / subsidy (50%)	Net grant (25%)
1	Continuous Contour Trench in cum for 1 ac	50	44.98	25	56225	14056	28113	14056
2	Continuous Contour Bund	90	44.98	137	554603	138651	277302	138650
3	Trench cum bund around the field	126	44.98	175	991809	247952	495905	247952
4	Field Bund within the plot	1	1050	175	183750	45938	91875	45937
5	Tree Plat Form	1	8675	25	216875	54219	108438	54218
	Total for the project				2003262	500816	1001633	500813
	Cost per WADI				10016	2504	5008	2504
	Average per family				10016	2504	5008	2504

14. Fencing:

The field, sunshine, water availability, soil type etc were taken into consideration. Pillar with net wire will be used for fencing specially to cover 200 acre land under batch-I. Plastic/ Chain wire link fencing system has various components:

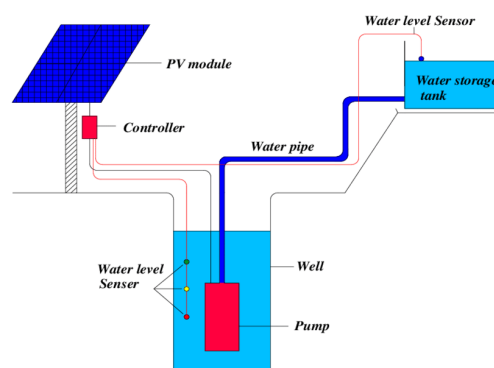
Out of Total perimeter 2800 for Fencing for 80 acres of land, 1850 m will be covered under fencing. Total area required will be 1850 x 1.52 m (5ft) in sqm. On the other hand, out of Total perimeter 3625 m for 120 acre land, 2798 m will be covered under fencing. Total area required will be 2416 x 1.52 m (5ft) in sqm. The RCC post will used along with GI wire net and plastic rope will be used for binding.



15. Water resource Development work in 200 acre land:

(i) **Water Resources Development:** It is very crucial to provide water to the crop fields with irrigation infrastructure. The analysis of information collected through primary data emphasizes on following type of water resources creation in the WADI field. In patch I covering 80 acre land, 4 nos. of Bore well will be dug and the water will be lifted in a Storage tanks by Solar pumps. For patch-II covering 120 acre land, 5 Solar pumps will be used for lifting water in the storage tank by installing 2 Bore wells and 3 existing water reservoirs. The water will be distributed to the entire land through delivery pipes.

S.N	Water Resources Devices	Qty
1	Bore well	6
2	Solar pump	9
3	Overhead tank	9
4	Pipes	

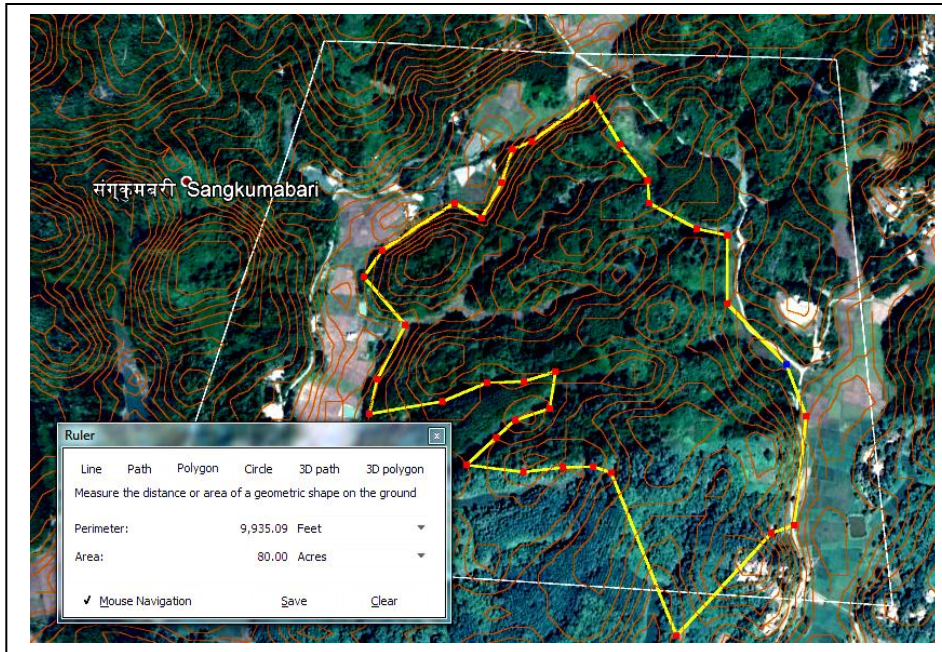


Introduction of Solar pump:

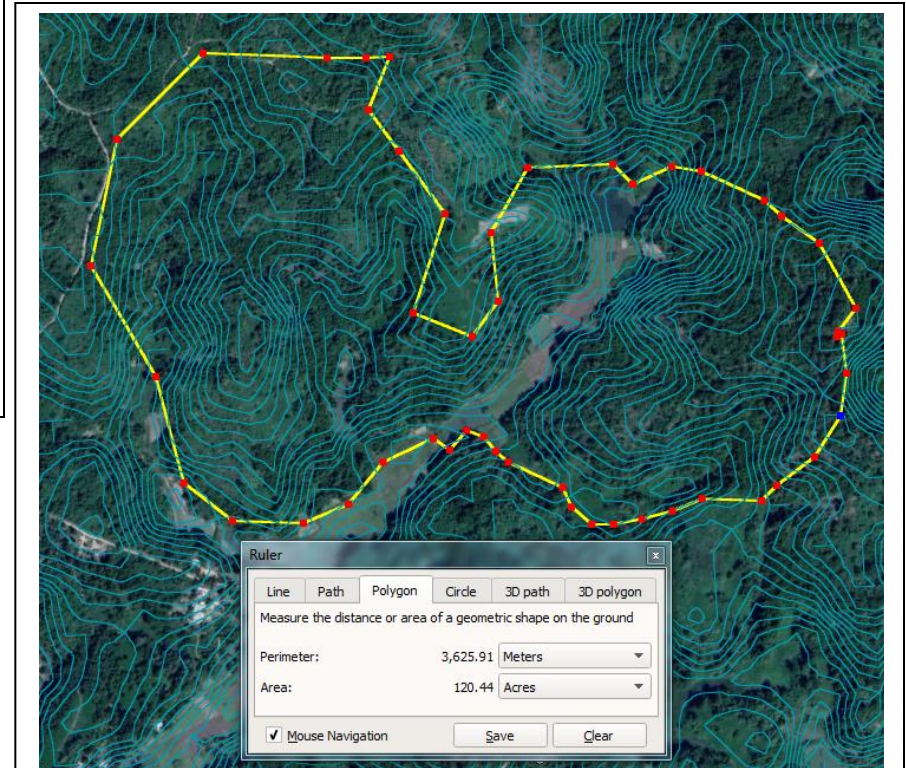
To ensure access to irrigation in a reliable and affordable manner we are purposing for introduction of 9 nos of solar pump in WADI field of proposed area as a conventional irrigation alternatives. Since most of these habitations are either un-electrified, power starved or the power supply is highly erratic energising the wells with normal grid power is also very difficult. In such scenario Solar PV water pumping systems emerge as viable option for ensuring uninterrupted water supply with minimum recurring expenses.



16. Patch – I and Patch – II Maps



Patch-I Lakshmikanta Para



Patch-II Bishukumar Para

17. Other Livelihood Intervention

a) Training/ capacity building

A number of interventions are planned for capacity building and imparting training for skill development with a view to aid the effective implementation of WADI project in the area. The interventions planned are:

i. Awareness Program and Community Mobilization:

To make this project community centered in real sense, following steps are to be followed in community mobilization to ensure their participation in the project.

Rapport building with the community by frequent field visits, night halts inside the villages, rapport building with the influential persons such as ADC members, women leaders, educated youths, traditional leaders in the village or ADC, meet and discuss with ADC representatives and share the project objective and arrangements for confidence building.

Initiate awareness campaign and social mobilization in every village to share about the project outcome, design, major activities and proposed institutional set up as per approved DPR by using effective tools, explaining the role of various stakeholders.

Assess the present status of existing community based organizations (with special reference to each type of credit and thrift based group) in identified village both formal and informal ones.

Build rapport with other stakeholders actively involved in developmental work for the area. Try to minimize the threat if any sharing that it is a people centered programme. Community institution is critical all others are there for helping institutions to carry it out.

It is proposed to conduct 10 nos of village level meetings within the first 3 years of the project. District Horticulture Department, KVK, Agriculture Department, TRLM and Animal Husbandry Department etc. will be involved during the camp for convergence and effective implementation of the programme.

- ii. **Training and Orientation to the PIA staff:** The PIA staff will be provided with inputs like planting, after care of the plants, developing nursery with the involvement of the District Horticulture Centre, and KVK, Commercial Nursery. In addition to this, PIA staff will also be provided with training on scientific Poultry, Duckery and Vegetable production management.
- iii. **Skill Development Training to farmers on demonstration of new cropping practices:** The farmers will be provided on-field inputs on proper aftercare of fruit plants. The cost will be mainly on the technical experts who will interact with the farmers and demonstrate the ways of doing things as also educate them on the need, importance, periodicity, etc of aftercare. Services of experts will be taken for the purpose.
- iv. **Formation and Capacity Building of UVS:** Total 10 nos of UVS will be formed to execute the WADI project in 10 villages. Along with this village level planning committee will be formed in this village. To strengthen the capacity of the UVS training programme for president and secretary will be conducted in total 2 nos of batches within 1st to 4th year of the project period.
- v. **Training of farmers on post-harvest management:** The farmers will be trained on post harvest technology like grading, packaging, storage and processing of Areca nut and

Orange. The farmers are often bear loss due to poor harvest management practices. Total 4 no of training programme will be conducted after 3rd year of intervention.

b) Women Development:

Empowerment of women will be crucial for their committed involvement in the project implementation. The component is aimed at empowerment, income generation, health, drudgery reduction. The activities planned under the program are:

- i. SHG formation and strengthening:
- ii. Livelihood and Credit Planning.
- iii. Skill Development Training

In the program villages, women will be provided with an opportunity to supplement existing income levels and the chance to lead a better life by fulfilling basic requirements of food, education and health. Income generation activities will be undertaken both at group and individual levels. The existing group will be strengthened and new groups will be formed to cover the uncovered women. Skill development training will be conducted on group effectiveness, leadership, development and group dynamism. For sustainability of the group and to take off income generation activity, livelihood and credit planning will be conducted for all SHG in the project area. The SHG will be linked existing Govt. programme under TRLM for livelihood and marketing support.

c) Health and Sanitation:

Health and sanitation is the major issue of the proposed project area especially for tribal community. In the proposed area the access to health care, family welfare, drinking water and sanitation services are relatively very poor. Malnutrition and ill health affect the working capability and productivity. The community will be empowered to access primary treatment, referral services in case of need, focus on maternal and child health care linkage with government schemes like RSBY and BSKY and Integration of local traditional knowledge. The PIA will ensure toilets for every household to make the villages open defecation free within the project period by accessing Govt. schemes and benefits. Apart from this immunization camps, vaccination camps and dewarming camp will be organized

d) Institution Building:

Capacity building plan / CBO development plan

The capacity building plan aims to create self-reliant communities in terms of their access to credit, access to agriculture and veterinary extension services, access to water for irrigation, access to storage and market linkages, and buy back assurance of agriculture and livestock production. Towards this, the following institutions to be developed in the project villages.

Self Help Group Promotion:

SHGs shall be the base institutions where livelihood interventions have been planned. Both the existing and defunct SHGs will be capacitated by conducting capacity building training programme for Micro Enterprise Development.

Livelihood collectives:

The PIA from the beginning of the project initiate for formation of Livelihood collectives in the WADI project by organizing the farmers in to a collective to improve their bargaining

strength in the market ,better price of their produces & better income enhancement opportunity for the farmer.

d) Rolling Baseline Survey and Impact Survey:

SPADE proposes to undertake a rolling baseline survey as a starting point. At the mid of the project, an independent evaluator may be deployed either by NABARD or SPADE to review the progress of the project. Intermittently, an impact study would be carried out to track and to understand longitudinal impact.

e) Farmer Case Studies:

Besides all the above, every time and as when required, SPADE would document the case study of the farmers and will share it with NABARD to enrich the learning and replicable of success

f) Stakeholders Orchestration:

Various actors engaged in this project area need to maintain very high level of co-ordination to make this effort effective. As it has been highlighted in many ways that both sustainable income enhancement through enabling people and strengthening their community based institutions are critical outcomes that this project envisions. This initiative will never attain its objective if short term goals are overemphasized at the cost of long term outcomes. Therefore one agency preferably the PIA should be exclusively responsible to carefully engage around community mobilization.

SPADE has its presence in the area for a quite reasonable time. So the PIA leverages expertise and resources from other NGO to integrate livelihood development with Water and sanitation dimensions for the participating communities. SPADE will actively seek expertise from other partners also to help integrate issues related to water, & hygiene, health in selected villages to enrich and develop model villages. These inputs will help SPADE to implement pilots for developing an integrated holistic model which makes a significant impact on issues of broader well-being of the target communities.

g) Project risk and their mitigation:

The project, if not much but has some degree of uncertainty in mobilization of funds from other sources. However, the sources tied up like NABARD is quite reliable. The project will immensely benefit from the contribution and support provided by the state government specially Horticulture, Agriculture, ARD Departments and TRLM programme.

Climatic condition might pose risk to the crop production in Kharif season, but it would mostly be mitigated through choosing suitable crops, better cropping practices and efficiently managing application of water for the crops. Under this component to mitigate water scarcity we have already initiated tie up with water resource and Lift irrigation department for digging of bore well under PMKSY and NHM for drip irrigation. We have already initiated Livelihood collective. The market risk envisaged by price fluctuation in the market will be nullified by suitable price mechanism built within the producers' organizations.

h) Convergence:

Convergence is one of the major components of the WADI project. Govt. Subsidy will be accessed for the installation of Bore well, Solar pump etc.

18. Project management:

Manpower planning:

SPADE will work with 200 families initially under batch-I where all the families will go for land based activities like plantation and vegetable cultivation. Further goatry, duckary, poultry and Vegetable cultivation will also be undertaken as supplementary income. However motivation of the members, technology transfer and facilitation for addressing social issues will be done by the staffs of SPADE. For implementation of the project a full time project coordinator 2 field supervisors and a part time project accountant cum MIS executive, part time technical horticulture officer/ retired Agronomist, part time SMC and WRD specialist provide technical support, establish marketing channel, training and demonstration to enable farmers to take up improved agricultural practices in terms of supplying inputs to the target families. The detail year wise HR expenditure is furnish below:

Personnel/ Management	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Total for 7 years
Programme Coordinator @ 15000 per month for 12 month of each year	180000	180000	180000	180000	180000	180000	0	1080000
Technical Officer- Horticulture part time Coordinator @ 3000 per month for 12 month of each year	36000	36000	0	0	0	0	0	72000
SMC/ WRD specialist on consultancy basis - Reimbursement basis @ 2000 per month for 12 month of each year	24000	24000	0	0	0	0	0	48000
Marketing, processing and credit mobilise as well as WADI- part time salary- Experienced staff of PIA may be earmarked @ 1000 per month for 12 month of each year	12000	12000	12000	12000	12000	12000	0	72000
Project Accountant part time @ 1000 per month for 12 month of each year	12000	12000	12000	12000	12000	12000	0	72000
Field Supervisor, 1st year 1, 2nd 2, & 3rd year onwards 2 (@ 3000 per month for 12 month of each year)	36000	72000	72000	72000	72000	0	0	324000
Sub Total: Personnel/ Management	300000	336000	276000	276000	276000	204000	0	1668000

Monitoring mechanism

Project monitoring is understood to be the ongoing, concurrent collection & analysis of information related to the delivery of the proposed goods and services. Monitoring activities will provide managers with the information relative to achievement of goals within specified timelines & schedules outlined within the project. Evaluation activities will build on monitoring information but will go into greater depth to measure and verify both short term and long term impacts.

The monitoring mechanisms will be done in different stages as follows;

- Desk monitoring will be conducted progress and achievement of the project as per specified project objectives and activities and to Prepare annual and periodic work plans, schedules and targets;
- MIS based monitoring will be conducted to tracked details records of physical and financial performance of the project.
- GPR(Ground penetrating Rader)based monitoring will be conducted to monitor the growth of the plants and fields of the WADI project.
- Social monitoring will be conducted to evaluate the impact of community involvements in the project as well as socio economic development of the community.
- The third party monitoring will be conducted year wise to monitor the progress and achievement of the project and also assess the performance of various organizational units and CBO and to make such changes as required.

Midterms evaluation and course correction will be done after three years to monitor the progress as well as to develop corrective plans of action where progress against objectives is significantly late or off target. Besides Periodic monthly, quarterly and annual reviews and planning including financial and social aspects. Formal and informal stakeholder feedback (including from manufacturers, dealers, UVS and nursery growers) will be conducted from time to time.

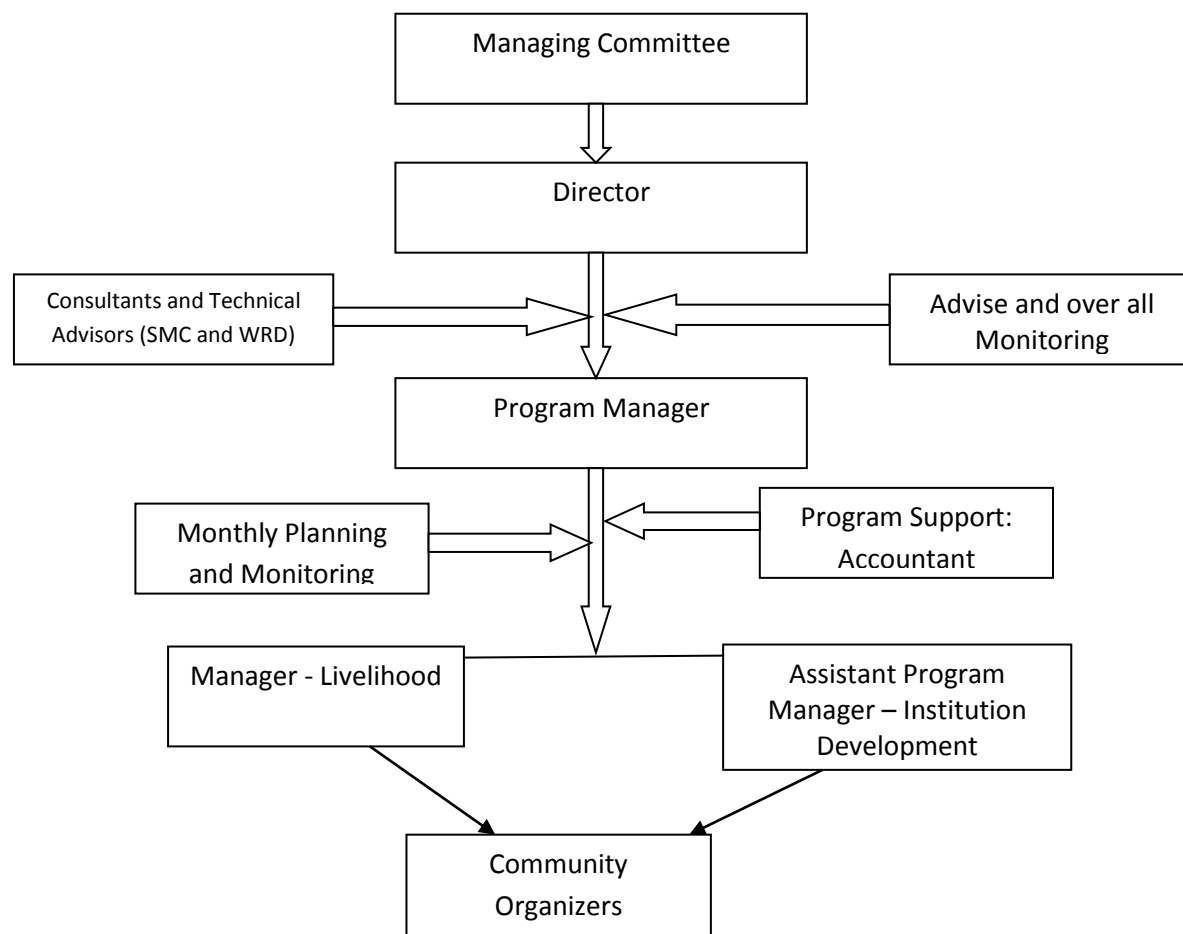
A project monitoring team will be formed comprising AGM, NABARD; LDM, Bank officials, Agriculture Department, Horticulture, KVK, Block officials to monitor the progress of the project.

The committee will sit quarterly to review the progress and achievement of the project and to provide suggestion and feedback, the successful implementation of the project.

The project implementing agency SPADE regularly apprise the PIMC and DDM about the progress of the project regularly and submit report to the DDM and RO on quarterly basis.

The data relative to key performance indicators and all other project progress is (and will be) tracked centrally within SPADE's computerized Management Information System. This allows for information consolidation to happen both at the local, HO level. All annual deliverables are tracked on a quarterly basis.

Proposed Organogram of the project:



Programme Periods and Phasing (Withdrawal Strategies)

The entire programme targeting 200 tribal families under WADI based livelihood will be implemented in 1st batch covering 200 families from 2020-2021 to 2026-2027. However, maintenance for horticulture crops will be restricted to a maximum of 5 years for each batch. Programme support will be provided for 7 years.

From the very beginning of the project cycle, effective participation of the WADI beneficiaries will be ensured in the project. As such the PIA, SPADE has chalk out an operational frame work of its intervention for the project period in 3 phase.

19. Loan components

The entire loan component will be utilized in some income generation activities, marketing infrastructure, Green house and Nutrition garden etc. The proposed farmers' livelihood collectives will avail loan both for horticulture and other livelihood activities from NABARD / Bank and other financial Institutions. The PIA will facilitate them for preparing credit plan before availing credit.

20. Fund flow mechanism:

As per the guideline of NABARD, the PIA will open a separate dedicated account exclusive for this programme in the nearest nationalized bank in the project area. The UVSSs thus to be formed in due course of the programme implementation will also be insisted to open such accounts in the bank for the transactions pertaining to the related programmes. The branch office located nearer to the project area will follow the basic procedure adhering to the guidelines of NABARD and SPADE for transferring fund to the user groups account (UVS). The statement would be reconciled on monthly basis to ensure proper utilization of fund and advance settlement at earliest.

21. Marketing:

The WADI farmers will be encouraged to form Farmers Producers Collective to take up the marketing of Areca Nut, Orange, vegetables and livestock produce.

Individual farmers shall bring their produce at a common point for sorting and grading. After sorting and grading bulk packaging of the produce considering the convenience of transportation and shall be store before dispatching to the buyers. The Farmers Producers Collective shall enhance the bargaining power of the farmers and as such it will be easier for them to fetch a remunerative price of their produce. Though there is no provision for processing of the said produce but in future as per the marketing needs, Farmers Producers Collective may think of processing of produces in future. PIA will facilitate for developing a functional linkage with a bulk buyers/ exporters and State Marketing Agencies both in Tripura as well as outside State. Further Rural Hat may be developed in the project area with the support of Govt. agencies for marketing the produces of the farmers throughout the year. For adding value in the product grading, packaging etc. shall be done by the beneficiaries.