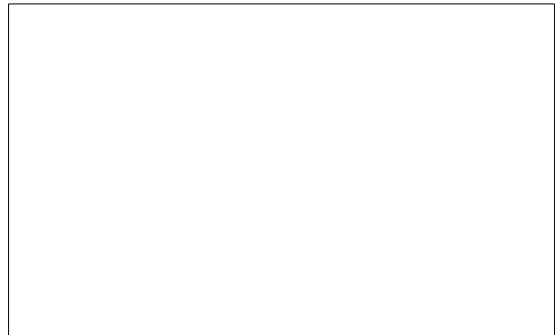


## **MAATHOTA- The WADI Programme Supported by NABARD**

VIKASA is implementing MAATHOTA programme in two Tribal Mandals of Visakhapatnam District in Andhra Pradesh State. This programme is funded by NABARD (National Bank for Agriculture and Rural Development) under the Tribal Development Fund programme for sustainable development of tribal community through natural resource management. As part of the programme, horticultural plantation would be developed in one acre per Tribal family. The plantation involves Core plantation such as Mango, Sapota, lemon, amla etc., promoted in central part of the plot, boundary plantation promoted along the boundary such as teak, custard apple, gliricidea etc... live hedge to protect the plot from cattle as well as human with euphorbia, agave, lanterna etc..., inter crops such as vegetables, millets, pulses etc. Soil moisture conservation (SMC) activities such as farm bunding, tree plot farms ; water resource development (WRD) would be developed to provide critical irrigation to the horticulture plantation in the first year.



Financial Support for cost of farmyard manure (FYM), neem cake, after care activities such as basin works, irrigation etc., would be supported for 5 years. Community contribution (25%) is integral part of all the activities except in material component. Community capacity building through trainings, health awareness programmes screenings camps and women development activities like drudgery reduction activities etc... are part of the project.

VIKASA, implemented the project in Dumbriguda and Araku valley mandals of Visakhapatnam District, Andhra Pradesh. This project was initiated in the year 2008 and covered 3000 families.

Under this programme each of the selected family supported for development of orchard with 77 to 100 core plants such as mango, sapota, lemon, amla etc., and 150 to 225 no's of other fruit / timber / non timber plants such as Teak, Custard apple, Gliricidiea, Red sanders etc, around the boundary in one acre; cost of plant material and cost of inputs like neem cake, farm yard manure and cost of aftercare activities would be supported for 5 years. Apart from plantation, promotion of other community needs like credit, health, drinking water, women development, skill development trainings based on available resources for increased

income and promotion of organic cultivation for increased net profit of the community are part of the programme.

### **Details of- Maathota - project in Dumbriguda and Araku valley mandals**

<b>S.No</b>	<b>Project title</b>	<b>PIA</b>	<b>Project location / Mandal</b>	<b>Core plantation per acre</b>	<b>Period</b>	<b>Project size In Acre / Families</b>	<b>Sanctioned budget ( in lakhs)</b>	<b>Status</b>
1.	TDF- Dumbriguda	Vikasa	Dumbriguda	Mango - 40no's and Amla/Sapota 40 no's	2008-2014	1000	395.35	Plantation completed in 1000 acre by July, 2010
2.	TDF - Araku Valley	Vikasa	Araku valley	Mango - 40no's and Sapota 37no's	2009-2015	1000	413.32	Plantation completed in 1000 acre by July, 2011
3.	TDF - Araku and Dumbriguda	Araku and Dumbriguda Maathota dev. Committee / Vikasa	Dumbriguda and Araku valley	Sapota -30no's, Amla - 40no's and Lemon - 30no's	2012-2018	1000	443.69	Plantation completed in 1000 acre by July, 2014
	<b>Totals</b>		<b>Dumbriguda and Araku valley</b>		<b>2008-2018</b>	<b>3000</b>	<b>1252.36</b>	<b>3000 families covered so far</b>

farmer is expected selling Teakwood most of the fallow soil moisture cons



Apart from these direct and indirect benefits out of the programme, increased agro forestry cover in the area will reduce the impact of climate change and reduce the loss of valuable top soil from their hitherto uncultivable lands.

About 110 Village development committees (VDCs) were promoted and strengthened as part of the

programme to monitor the programme at village level. These VDCs played a major role in selection of active farmers for the programme and to timely completion of activities by maathota farmers. Cluster level VDC review cum meetings become a platform for exchange of success as well as learnings among VDC leaders. Shifting from free grazing to controlled grazing is one of the achievement from the resolution taken at cluster level VDCs meetings. This shift, changed the agriculture scenario in the project area. Banana and hill grass in maathota as well as in non-maathota areas is the indicator for controlled grazing in project villages. VDCs brought in community thinking among all the farmers to take up developmental activities and addressed drinking water issues in 9 villages.



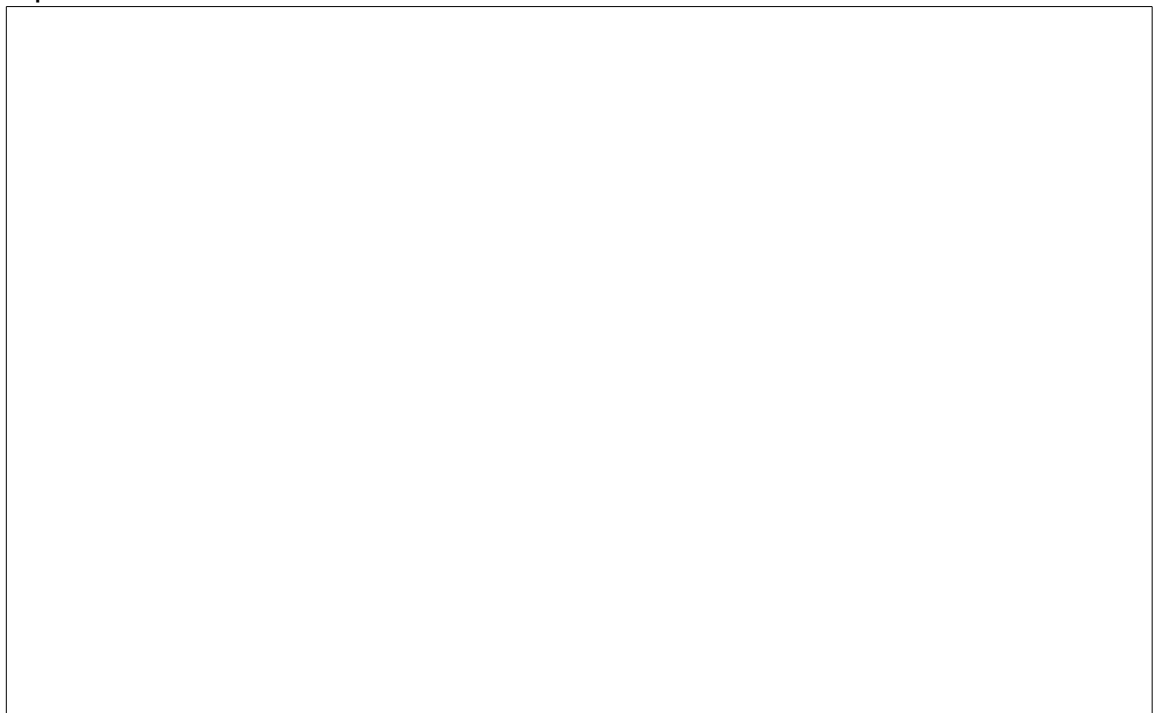
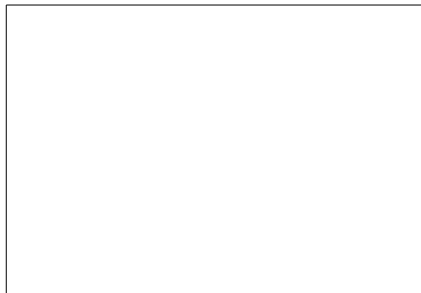
**Horticulture:** - Twenty no's of Suvarnakha and twenty no's of Kesari varieties of Mango and Forty no's of Kalapatty variety of Sapota were planted as core plantation at 7m spacing. Other species like custard apple, teak, red scandals, silver oak, Gliricidea etc... were promoted as boundary plantation around the plot first project. Farmer family would get income twice or thrice in a year from core plantation (fruit trees )and boundary plantation and get fixed amount from timber varieties like teak, red scandals etc.... in about a period of 20 years.

**Organic Maathota:** - For sustainable agriculture in tribal area, all Maathota farmers were encouraged to practice organic practices like ...

- Preparation of bio-mass based manure with locally available bio-mass and crop residues in each of the plot as a mandatory activity
- Application of Farm yard manure
- Application of Neem cake
- Foliar spray of cow urine and dung as a repellent to pests and their egg laying on the plants / leaves
- Application of concoctions prepared with locally available plant leaves (NPM - Non pesticide management) etc...

**Support covered under the project for Horticulture:-**

NABARD provided grant support for material cost for plants and other



inputs. Farmer contributed 25% of the labour activity as *shramadan* and NABARD supported for the remaining 75% of labour involved activities like Pit digging, refilling, basin works, Soil moisture conservation works etc...

Support provided for fencing around the plot, inter crops, soil moisture conservation (SMC) and water resource development in the first year.



Support for after care activities like basin works, application of manure, irrigation and pruning extended for initial five years. On an average each Maathota family was supported to the tune of ₹. 27,000 for five years for development of orchard in one acre of area.



### **Soil Moisture Conservation Works:**

Soil moisture conservation works like farm bunding (61706 cum of earth work), stone bunding (18345 cum of stone work), 15363 individual tree platforms and stone out-lets were executed to conserve water and top soil for better

performance of the plantation.

**Water resource development:-** 45 kerosene/ Diesel engines, HDPE pipe for 120 gravity systems, 202 storage tanks were supported for the plots situated in higher elevations over the source like tanks, wells and streams. HDPE pipes and collection tanks were supported for the plots situated in lower elevations over the sources like natural springs and streams. With all the above practices survival and growth rate of the plants are encouraging. Sapota is newly introduced in the area as a horticultural crop. Majority of the farmers covered under the project, experiencing the taste of sapota first time in their life.



**Drinking water:** - Community in most of the project villages drinks contaminated water flowing in hill streams and facing shortage of drinking water during summer. To address the issue, 16 villages supported by drawing water through gravity from springs situated in higher elevations and supplying through 2 to 3

tap points per habitation. Around 800 families are getting portable drinking water from these gravity taps.

**Health camps:-** In Tribal mandals farmers are practicing only kharief crops and leave the cattle for free grazing during the remaining season and they will depend on food grains getting from the kharief crops and PDS (Public Distribution System) rice. Some of the families are losing this season if working person in the family fell ill. Twenty six health camps were conducted with the association of local PHCs and specialists from Visakhapatnam. One medical camp for women was conducted with gynaecologist to address the women health issues in project area. Three medical camps were organized with Homeo Doctors in both the mandals. Awareness meetings on health programmes were conducted in project villages. As the street drainage system is poor in tribal hamlets, 490 soak pits were constructed to maintain hygiene condition in the village. A platform was constructed over the pit filled with boulders, stones and sand. Soak pits were constructed in such a way that used water on the platform drains into the pit below and seeps in to the ground. After construction of soak pits, water is not flowing in streets during summer and winter season thereby controlled mosquito population and hygiene condition in villages.



**Promotion of Vegetable cultivation:-** For increased income of the community in project villages, About 555 no.of training programmes on vegetable cultivation and nursery management were conducted in project villages in a span of 9 years. About 3000 seed kits were distributed to project families. Emphasis was given to organic cultivation and bio-pesticide management for sustainable agriculture by securing the soil health. Vegetable seeds like carrot, tomato, brinjal, cluster beans, etc...were supported as part of the programme. Water resource development activities like kerosene engines and gravity systems were also supported for the vegetable crops during critical times. Fencing around Maathota plot also ensured protection from cattle. Farmers in Anthriguda and Jamiguda, Jakaraguda, Sainagar, Gathrazilleda,

Gadiyaguda, poddaguda etc... villages practicing vegetables



intensively and each of the family getting net income of ₹ 20, 000 to 50, 000 . Exposure



visits were arranged for the remaining villagers to these two villages, most of the project villages are now practicing vegetable cultivation with organic practices.

### **Women Development activities**

**Strengthening of SHG groups:** - About 114 Awareness meetings were conducted as part of strengthening existing SHG groups.

**Distribution of smokeless chullahs:** - Tribal families in agency area are spending 3 to 5 person days per week for collection of fire wood from far off places. Women while cooking also are exposed to smoke and suffer from health diseases related to lungs. To address this situation 2035 no.of smokeless chullahs of Envirofit were distributed in project villages of Araku valley and Dumbriguda mandals. These chullahs reduced 50% of drudgery of women in collection of fire wood (by way of efficient fuel burning capacity) and reduced the stress on the surrounding forest.

**Mini flour mills:-** Three min flour mills were established in three clusters to address women drudgery in processing of Ragi for food consumption.



**Skill development trainings:** - About 311 Skill development trainings like broom making, tamarind cake making were conducted in all the four clusters. Trained community from Dumbrigunguda and Araku valley mandal. Hill grass over farm bunds, agave as live hedge and banana in SMC trenches are widely promoted. About 1200 of 3000 farmers are getting around Rs. 50,000 /- per annum from banana, agave and hill broom besides income from core plantation, boundary plantation and inter crops.



As seeing is believing, regular exposure visits were conducted to 698 farmers. Majority of replication of success stories such as promotion of hill grass over bunds, banana in trenches, agave as live hedge etc... are taken place after interaction with model farmers within and outside the project areas.