

'तूं जन्मतां जरि स्वतः रडलास पोरा । आनंदुनीच हसला परि लोक सारा ।। ऐसेच पुण्य कर की मरताहि तूं रे । तूं हसशील परि विध रडेल सारे ।।

# Talekhal – Saphale

# Gram Vikas Yojana

Presented by **Aarambh Samaajik Sanskrutik Kala Va Krida Sanstha** A-1, Sangata Society, Chincholi Bunder Road, Malad West, Mumbai – 400064

Register under Societies Registration Act of 1860 Registration No.: 1538 / 2013 G.B.B.S.D. dated 29<sup>th</sup> June 2013 (Refer page no. 15 for copy of registration certificate)



### Vision:

A permanent change, so rural children can have a happy healthy protected childhood forever. Every individual to be self sufficient and contented.

### Mission:

Aarambh's mission is to provide opportunities to under privileged children from Rural India to contribute their ideas, develop their potential and understanding through education, better standard of living and make the best use of their talents and abilities so that the children and their families can look forward for a better life for themselves.

## **Objectives:**

- To support rural school with additional facility those governments can not provided.
- To conduct exhibition and contest to develop children's potential and encourage them to use their ability to fullest extend.
- To Support, Senior Citizen of the society, in respect of their wellness.
- To support children education and provide them the proper environment
- To give medical attention to rural children.
- To organize medical camps





#### Student drawing competition:

On 8th December 2012, Aarambh had conducted Drawing Competition of rural school children at Talekhal Zilla Parishad School, Saphale, Thane.

Event was organized, to boost the creativity of the children's.

140 students of 11 Zilla Parishad School had participated in competition.

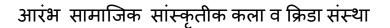




Then drawing material was distributed.



This children require motivation and we try to motivate them through such events.





#### Aarambh Aantarshaleya Kalamahotsav:

On 14th December 2013, Aarambh had conducted an Interschool – Arts completion of rural school children at Talekhal Zilla Parishad School, Saphale, Thane.

160 students of 11 Zilla Parishad School had participated in competition.



The joy on the faces of these children boosts our energy to do much better and much more for them.



We did a thorough survey on the rural children. We found that these children are tremendously talented. They are very much capable of competing with the students of urban schools, only thing missing is an appropriate platform and some healthy opportunities. The day they have this support, these angels can create wonders.

During our research on this subject we came across Talekhal Zilla Parishad School, Navghar, Saphale, Thane, Maharashtra.

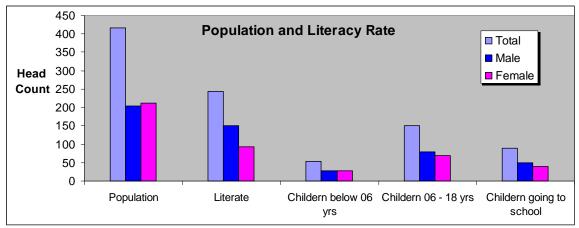
#### Study on Talekhal village

Population survey done by our member						
No of Households	79		Total Population	416		
Male Population	204		Female Population	212		
Population below 06 yrs	54					
Population below 06 Male	27		Population below 06 Female	27		
Population below 07-18 yrs	150					
Population below 07-18	80		Population below 07-18	70		
Male			Female			
Children going to school	90					
Primary School I – IV STD	60		Secondary School V – X STD	30		
Total Agriculture Labour	0					
Marginal Agriculture Labour	0		Marginal Agriculture Labour –	0		
- Male			Female			
Literate Population	244		Illiterate Population	172		
Male Literate	150		Male illiterate population	54		
Female Literate	94		Female illiterate population	118		
No of Households	79		Working Population	254		
Main working population	0					
Main Working Population	0		Main Working Population	0		
Male			Female			
Main Casual Working	0		Total Casual labour			
Population						
Main Casual Working	0		Main Casual Working			
Population Male			Population Female			

Deputation our way dang by our member



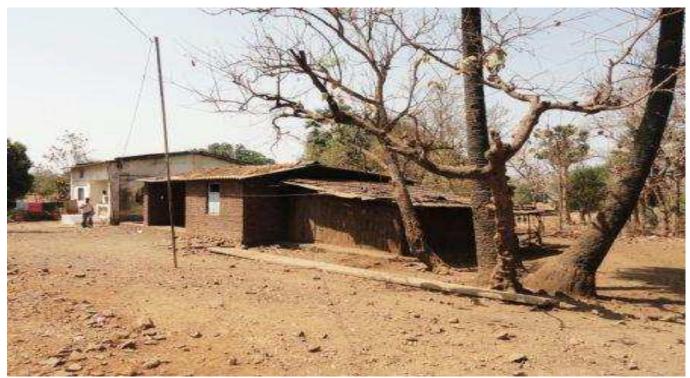
**Literate rate** of village is 58.65%. Children in school going category is 36.06% i.e. 150nos. Children going to school are 60% of total children population in village. Even among 60%, 10-20% children attend school only for half year or leave the school. We wanted to know why rest 40% children are not coming to school, hence we tried to analysis the situation of this village.



Graph showing Literacy rate of Talekhal

## आरंभ सामाजिक सांस्कृतीक कला व क्रिडा संस्था





Our analysis and survey on the village.

- Farming is done only in monsoon, as water is available in plenty. Only rice is grown here.
- Farming is done for self consumption, if excess grown then they sale and purchase other things for livelihood.
- Other season no irrigation facility for farming, hence no water no farming, hence no employment and no income.
- Scarcity of water for drinking in summer season.
- In other season the parents wander for earning to support their families.
- Children have to take care of house, siblings and cattle.
- Thus children have no time for school and study
- Some children accompany their parents on work, thus encourage child labour.

After understanding the root cause of their problem, we thought of Gram Vikas Yojana by encouraging them through advance farming.



#### Initiatives Taken Meeting with Villagers

On 16th March 2013 we had meeting with the villagers at Talekhal School, we proposed them that we will support them for income during other season by helping them grow other cash corps. All the material, seeds, fertilizers and water will be provided by us. They have to take care of the plant, nurture them. The crop will be sold directly in market and they will get good amount of income.

We got positive response from the farmers and their family. They agreed to help us and themselves.

#### Meeting with Dr. Govardhan Koli

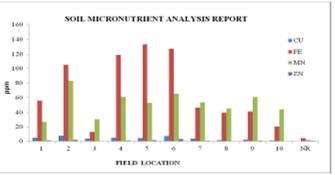
We approached, Dr. Govardhan Koli, a renowned ayurvedic doctor, of Chembur on 23rd March 2013. He has been working with such remote villagers and social workers since many years. We explained him the scenario and the current status of the village and our motive to bring a new change. He was impressed by our noble thoughts and decided to support us in all the possible ways. He gave us the right vision and foresight. We got good idea of how to initiate & organize this project.

#### Soil Testing

On 13th April 2013 we visited Talekhal, Saphale for soil sample collection. We collected soil samples from 10 different locations, by digging 2feet deep. On

16th April 2013 we submitted soil samples to Rashtriya Chemicals & Fertilizers Ltd., Soil Testing Laboratory, Chembur, Mumbai – 400074. Mr. Sawant was very co operative with us.

Link to RCF's soil testing site:



http://www.rcfltd.com/index.php/products/soil-testing-services

After few days we received the reports of soil samples, which stated soil is bit acidic but was fit for all the plants which we wanted to grow.

This was the second positive sign for us to go ahead with this project.

Mr. Sadashiv Koli introduced us to Mr. Patil an expert on soil and agriculture. After going to through soil testing report he guided us which cash crop to be planted, how long it takes to grow, how to take care of them, when it will start to yield and quantity of the yield it will give.

Mr. Patil advice us to speak to Dr. Bhaskar rao Jadhav from Beed District, Maharashtra and asked us to get his book written on the plants. In this book he has mentioned how to take care of the plants, soil and climate condition required. Diseases and the preventive systems.



#### Brief on project

After doing thorough study about the rural children and their parents, basically the farmer and the village, we were drawn to conclusion that we should do this project.

For better implementation, we have divided this project into various phases.

#### 1st Phase:

Farmers do farming only in month of monsoon and rest of the year they migrate to city for job. This is only because farming is not possible throughout the year as there is shortage of irrigational facilities for farming.

To overcome the problem of migration to city during this season for income, **cash crops** like Moringa (Shewga, drumstick) and Papaya seeds and seedlings will be given to farmers. This plant requires less water and less time to grow. The plant gives production through out the year, in large quantity and fetches good price in market.

#### 2nd Phase:

As we know there is scarcity of water and irrigation facilities in this region. To overcome this problem we planned to do rain water harvesting. "**Pani Adva Pani Jirava**" making recharge wells at various spots in village, making water catchments on small hills and allowing water to percolate into the earth, so that ground water level increases over a period of time. This will ensure water throughout the year for farming.

#### 3rd Phase:

To ensure children go to primary school and then to secondary school and from secondary to higher studies. We need to implement the 3rd phase.

In 3rd phase we will provide farmers with seed and seedling for **herbal plantation**. This herbal plantation will allow them to earn more money. Setting up "Ayurvedic Research Centre"

#### 4th Phase:

**Co-operative movement**, bringing all the villagers and neighboring villages together. Educating them about the development of Talekhal. Encouraging them for self development.



#### A detail implementation of the phases

## 1St Phase

# Income generation for Farmers throughout the year Implementation of 1<sup>st</sup> phase has begun from Aug 2013.

Overcoming the problem of migration to city during non productive season of the year for income.

#### Cash Crops:

a crop grown for sale rather than for subsistence. any crop that is considered easily marketable. a readily salable crop that is grown and gathered for the market. a cultivated plant that is grown commercially on a large scale.

Example: vegetables, cotton, maize, sugarcane, tea, rubber, mustard, onion, turmeric, jute, groundnuts etc.

In India as there are varieties of soil condition and climate condition and depend on them cash crop changes from region to region.

#### Cash Crop & Variety selected for this project

After considering the soil test, climatic condition and availability of water we have selected two cash crops Moringa Oleifera (Drumstick, Shewga) and Papaya. Analyzing the feature and yield per year, expert of agriculture suggested us to select following seed or seedling for this village.

- 1) "P.K.M.1" for Moringa Oleifera(Drumstick, Shewga)
- 2) "Red Lady Taiwan 786" for Papaya

The above type of seeds and plants grows within 7<sup>th</sup> or 8<sup>th</sup> months of plantation, provides high yields and are resistance to diseases and insects which are commonly found in this region.

#### Market Research

#### Domestic:

In India people are aware of health benefits of this crop. Prices of Shewga & Papaya are affordable to common people of India.

Drumstick is popular ingredient in vegetable in Maharashtra and South India people, there is ample of market for Moringa (Shewga, Drumstick).

India is the largest producer of Drumsticks, with an annual production of 1.1 to 1.3 million tonnes.

Papaya is well know, promotes digestive system, help to support Immune system. In 2002 production of papaya in India was 26 lakh tones out of this only 0.08% of domestic production is exported and the rest is consumed within the country. Delhi and Mumbai are the two principal markets.

Markets in Thane and Mumbai are the place where there is big demand for the papaya & drumsticks. Hotel industries buy directly from wholesalers. We have spoken to some hotels that are ready to buy directly from us.



#### Export:

Drumsticks have demand in other countries for its oil and medicinal use. India exports Papaya mainly to Bahrain, Kuwait, Qatar, Saudi Arabia, U.A.E., Netherlands etc.

We have spoken to some of the exporters and they are ready to purchase the fruits from us.

Year	Plant	No. of Plant per Farmer	Yield per Plant per Year	Total Yield Per year	Rate	Earning Per Farmer Per Year ₹	Earning Per Farmer Per Year ₹	No. of Farmer	Earning Per Year ₹	Earning ₹
1st	Papaya	15	144nos.	2,160/-	30/-	64,800/-	75,300/-	15	9,72,000/-	11,29,500/-
Year	Moringa	75	14Kg.	1,050/-	10/-	10,500/-	75,300/-	15	1,57,500/-	11,29,500/-
2nd	Papaya	17	144nos.	2,448/-	30/-	73,440/-	83,940/-	35	25,70,400/-	29,37,900/-
Year	Moringa	75	14Kg.	1,050/-	10/-	10,500/-	03,940/-		3,67,500/-	29,37,900/-
3rd	Papaya	19	144nos.	2,736/-	30/-	82,080/-	93,280/-	55	45,14,400/-	51,30,400/-
Year	Moringa	80	14Kg.	1,120/-	10/-	11,200/-	93,200/-	55	6,16,000/-	51,30,400/-
4th	Papaya	20	144nos.	2,880/-	30/-	86,400/-	1,00,400/-	75	64,80,000/-	75,30,000/-
Year	Moringa	100	14Kg.	1,400/-	10/-	14,000/-	1,00,400/-	75	10,50,000/-	75,30,000/-
5th	Papaya	21	144nos.	3,024/-	30/-	90,720/-	110,320/-	95	86,18,400/-	104,80,400/-
Year	Moringa	140	14Kg.	1,960/-	10/-	19,600/-	110,320/-	90	18,62,000/-	104,00,400/-

### Estimated earnings from farmer in 1st Phase

A farmer earning in city/town, labour job is ₹ 150/- per day, during nonfarming season. We wanted them to earn ₹ 209/- per day and estimated growth rate of their income at 10% per year, keeping in mind inflation rate. By end of 5years each farmer will be earning ₹ 293.00 per day.

#### Estimated cost of the 1st Phase

Sr.	Particulars	Amount ₹
a.	Cost of seed, seedling, fertilizer, pesticides	60,000.00
b.	One Tube well digging	1,50,000.00
C.	Plastic tanks: 5000 liter capacity 3nos. For surface storage of water	45,000.00
d.	Irrigation system Drip irrigation to use water efficiently	80,000.00
e.	Water Pump, Power generator and electrical fitting	1,25,000.00
f.	Maintenances cost of Tube Well, Water pump and Power Generator	50,000.00
	Total Cost	5,10,000.00



#### 2nd Phase Rain Water Harvesting & "Pani Adva Pani Jirava"

#### What is rain water harvesting?

It means capturing rain where it falls or capturing the run off in your own village or town, and taking measures to keep that water clean by not allowing polluting activities to take place in the catchments.

#### Therefore, water harvesting can be undertaken through a variety of ways

- Capturing runoff from rooftops
- Capturing runoff from local catchments
- Capturing seasonal floodwaters from local streams
- Conserving water through watershed management

These techniques can serve the following purposes:

- Provide drinking water
- Provide irrigation water
- Increase groundwater recharge
- Reduce storm water discharges, urban floods and overloading of sewage treatment plants
- Reduce seawater ingress in coastal areas.

In general, water harvesting is the activity of direct collection of rainwater. The rainwater collected can be stored for direct use or can be recharged into the groundwater. Rain is the first form of water that we know in the hydrological cycle, hence is a primary source of water for us. Rivers, lakes and groundwater are all secondary sources of water. In present times, we depend entirely on such secondary sources of water. In the process, it is forgotten that rain is the ultimate source that feeds all these secondary sources and remain ignorant of its value. Water harvesting means to understand the value of rain, and to make optimum use of the rainwater at the place where it falls.

#### Attributes of Groundwater:

- There is more ground water than surface water. Ground water is less expensive and economic resource. Ground water is sustainable and reliable source of water supply.
- Ground water is relatively less vulnerable to pollution, Ground water is usually of high bacteriological purity. Ground water is free of pathogenic organisms.
- Ground water needs little treatment before use. Ground water has no turbidity and colour. Ground water has distinct health advantage as art alternative for lower sanitary quality surface water.
- Ground water is usually universally available. Ground water resource can be instantly developed and used. There is no conveyance loss in ground water based supplies.
- Ground water has low vulnerability to drought. Ground water is key to life in arid and semi-arid regions. Ground water is source of dry weather flow in rivers and streams. Source: <u>http://www.tn.gov.in/dtp/rainwater.htm</u>



# IMPLEMENTATION OF RAIN WATER HARVESTING AT TALEKHAL, SAPHALE

#### RAIN WATER HARVESTING TECHNIQUES:

There are two main techniques of rain water harvestings.

- Storage of rainwater on surface for future use.
- Recharge to ground water.

#### ARTIFICAL RECHARGE TO GROUND WATER:



Artificial recharge to ground water is a process by which the ground water reservoir is augmented at a rate exceeding that obtaining under natural conditions or replenishment. Any man-made scheme or facility that adds water to an aquifer may be considered to be an artificial recharge system.

The storage of rain water on surface is a traditional techniques and structures used were underground tanks, ponds, check dams, weirs etc. Recharge to ground water is a new concept of rain water harvesting and the structures generally used are :-





**Pits:** Recharge pits are constructed for recharging the shallow aquifer. These are constructed 1 to 2 m, wide and to 3 m. deep which are back filled with boulders, gravels, coarse sand.

### Trenches on Hill slope:

On hill slope 3 to 4 meter deep trenches to be dug and soil removed to be



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of the hill. These trenches retain rain water and help to percolate in soil and hereby increasing ground water level.

deposited

downside

on

the

## COSTING OF RAIN WATER HARVESTING

## Estimated Unit cost of construction activities for recharge pit.

ltem	Unit	Rate ₹	Qty.	Amount ₹
Excavation in soils	cu. m.	120.00	95	11,400.00
Excavation in rock	cu. m.	150.00	100	15,000.00
Brickwork with cement mortar (1:6)	cu. m.	1400.00	5	7,000.00
Plain cement concrete (1:3:6)	cu. m.	1500.00	5	7,500.00
Reinforced cement concrete (1:2:4) cu. m. 4700.00Including steel bars, shuttering etc.	cu. m.	4700.00	2	9,400.00
PVC piping for rainwater pipes - 200 mm diameter	meter	275.00	20	5,500.00
Making borehole in meter 165.00Soft soil (with 150 mm diameter PVC casing)		180.00	50	9,000.00
Total co	64,800.00			

#### Estimated Total cost of 2nd Phase

Sr.	Particulars	Qty	Rate ₹	Amount ₹
a.	Recharge pit 5 location identified in village	5	64,800.00	3,24,000.00
b.	Trenches on Hill slope	100	2,000.00	2,00,000.00
C.	Recharge well for existing wells and tubes wells 6 nos. tube wells 4 nos.	10	50,000.00	5,00,000.00
d.	Spreading technique "Pani Adva Pani Jirava"			90,000.00
e.	Consultancy Fees			1,00,000.00
	Total Cost			12,14,000.00



#### 3rd Phase:

To ensure children go to primary school and then to secondary school and from secondary to higher studies. We need to implement the 3rd phase. In 3rd phase we will give farmers seed and seedling for herbal plantation. This herbal plantation will allow them to earn more money. Setting up "Ayurvedic Research Centre"

After completion of third phase we would like to see village full of greenery and children playing and study. Children are free from worry of helping their parent and income for their family.

#### 4th Phase:

Co-operative movement, bringing all the farmers and neighboring village together. Educating them about the development of Talekhal, encouraging them to do similar development in their village.

The 3<sup>rd</sup> and 4<sup>th</sup> phases planning are under development stage hence we will inform in details after completion of 1<sup>st</sup> Phase.

#### "Smile on the face of underprivileged is the biggest gift to the society."

Hoping for the best support.

Make donation

Cheque to be favoring:

"Aarambh Samaajik Sanskrutik Kala Va Krida Sanstha"

Or

# "आरंभ सामाजिक सांस्कृतीक कला व क्रिडा संस्था"

#### Bank details

Bank Name: State Bank of India Branch: Mind space, Malad (West) Savings A/c no.: 33292939994 IFCS Code: SBIN0004391 MICR No.: 400002158

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।।श्री गुरुदेव दत्त।।



Registration No.: 1538 / 2013 G.B.B.S.D. Dated 29<sup>th</sup> June 2013 विशेष---अ.जा./पु. सा. वि./५० म. क्रमांक 0.047378 **Ticun प्रमाणपत्र** संस्था नोंदणी अधिनियम, १८६०

> (१८६० चा अधिनियम २१) महाराष्ट्र राज्य, मुंबई 1538 २०१३ जी.बी.च. क्य.डी.

नोंदणी क्रमांक

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खालील तारखेस संस्था नोंदणी अधिनियम. १८६० (सन १८६० चा अधिनियम २१) अन्वये योग्यरीत्या नोंदणी करण्यात आली.

तारीख 7 9 JUN 2013 २०

रोजी माझ्या सहीनिशी दिले.



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