

# Water for Communities

## Celebrating World Wetlands Day

February 2, 2016

Pathardi Village, Palghar District, Maharashtra



# \*Significance of the event

- TERI's ongoing project at Pathardi village titled **“Establishing vegetables clusters”** aims at sourcing nutritious food to tackle malnourishment through use of available natural resources and processed grey water.
- Celebrating **“World Wetlands Day”** was of great relevance to explain the **importance of grey water wetlands/ systems** developed for sourcing water for secondary applications and most importantly cultivating vegetables round the year for self-consumption.
- Provision of **local fresh food** is expected to greatly help circumvent issues of malnourishment.



# \* Challenges faced by the communities of Pathardi

- Pathardi is the remote tribal village in Mokhada block of Palghar district, Maharashtra, India with partial electric supply.
- Accessibility, quality and quantity of water is a great challenge especially during dry summer months.
- Women daily fetch more than 80 lit of water per family from an average distance of 1.5 km, thus suffering from immense physical stress.
- Scarcity of water and stress discourages them to cultivate vegetables in their backyard for self-consumption.
- This is one of the major reasons of severe malnourishment.



Women travel long distance to fetch water

# \*Agenda of the event

## Introductory session with Team TERI and Participants of Pathardi village

Global overview and local significance;  
Importance of “World Wetlands Day”

Poster presentation;  
Role of Natural and Manmade wetlands

Visit to Natural Wetlands in the vicinity of the village

A participatory activity to conserve Natural Wetlands

A training workshop to construct Manmade Wetlands to treat Grey Water

### Special Demonstrations

1. Construction of Grey Water Treatment System

2. Applications of using treated Grey Water for Vegetable Cultivation

# \*About the event

- TERI, with support from GKN Sinter Metals Pvt. Ltd, celebrated **World Wetlands Day on 2<sup>nd</sup> February, 2016** with the tribal communities in the remote areas of Palghar District, Maharashtra, India.
- **Focus of the event:**
  - To introduce the concept of natural and man-made wetlands to the tribal communities.
  - To encourage use of treated grey water to grow healthy nutritious food in the backyard/ kitchen garden.
  - To encourage villagers to undertake long term and sustainable conservation of natural wetlands.



# \* Visit to Natural Wetlands in the village

- A visit was arranged to assess the status of the natural and only water sources comprising of one pond and two wells in the village.
- It was observed that holding ponds and wells become dry in the early summer days leading to water scarcity for about 3 months until the onset of the monsoon.

Wells during monsoon



Holding pond in the village



During Monsoon



During Summers

Early drying of the wells



# \* A participatory activity to conserve natural wetlands

## Objective

- To de-silt the dry pond to increase its water holding capacity.

## Benefits

- Enhance collection of surface runoff
- Recharge groundwater table
- Combating early drying of wells due to holding pond.

## Impact

- Around 25 women got motivated and offered 'shramadan' (help) for silt removal. De-siltation of up to 4ft was further carried out by deploying additional mechanical devices.
- This has enhanced the water holding capacity of the pond by 30% .



Participatory 'Shramadaan' activity initiated in the village under the event

# \* Construction of Man-made Wetland to recycle grey water

The concept of Manmade-wetland was introduced effectively through installation of grey-water treatment system at household level.



Women carrying liters of water for the family.

## Achieved benefits:

- Making water available for growing veggies even during the dry season.
- Provide water for secondary purposes.
- Minimize the trips of fetching water for secondary purposes.
- The requirement of fetching water was reduced by 40%.



Food grown in the backyard -  
A sustainable initiative

# \* Demonstration and installation of the grey water treatment system

## Objective

To train and build capabilities of village youth for better understanding of the process of treating grey-water and its applications.

## Impacts

- Around 10 youths were trained to install grey water treatment systems at household level.
- 7 grey water treatment systems have been installed in Pathardi village.
- Created a livelihood option.



Training and demonstration- Installation of the grey-water treatment system

# \* Special activity

- Protein and Iron deficiencies are the cause of concern amongst children.
- To provide fortified and palatable food items, TERI has trained the women from neighboring villages of the district to prepare “khakhras” a popular snack item by adding dry powder of spinach/ fenugreek leaves and mushroom to wheat floor base.
- The product was distributed by the Women Self Help Group (SHG) members.

## Impact

- Tribal women were inspired to empower themselves to prepare fortified food to tackle malnourishment.
- Encouraged them to undergo similar training as a means of revenue generation.
- The product was accepted with respect to its taste and appearance.



The SHG members interact and distributed nutritious khakhras to the villagers



## \* Summary

- World Wetlands Day was a success in enhancing overall understanding of conserving and creating wetlands for water and food.
- TERI strategically aimed at tackling malnutrition at the local level by-
  - *Providing a sustainable source of clean water for drinking.*
  - *Reusing grey water for developing nutri-gardens/kitchen gardens at the remote tribal village.*



\*THANK YOU

