

## \*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.
- <u>Scarcity of water and stress discourages</u> them to cultivate vegetables in their backyard for selfconsumption.
- 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 <u>introduce the concept of natural and man-made wetlands</u> to the tribal communities.
  - To encourage use of treated grey water to grow healthy nutritious food in the backyard/ kitchen garden.
  - To <u>encourage villagers to undertake long term and sustainable</u> 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.

Holding pond in the village

#### Wells during monsoon



Early drying of the wells



**During Monsoon** 

**During Summers** 





## \*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%.



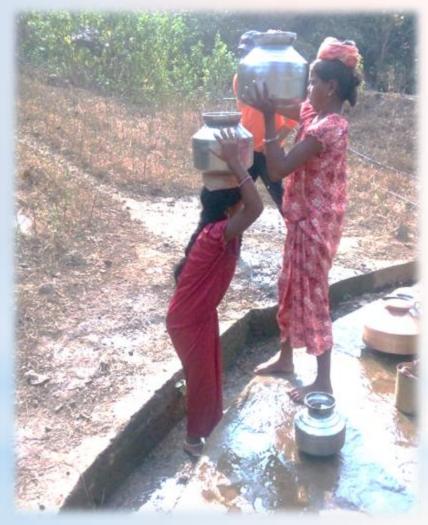
Participatory 'Shramadaan' activity initiated in the village under the event





## \* 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 greywater 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









- 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





