



PRESENTATION ON

Save Water Save Life

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About NEER Foundation



NEER (National/Natural Environmental Education and Research) FOUNDATION

An Organization for water conservation and environment protection

Key areas of work :

- Groundwater quality protection for human health
- Provision of safe drinking water to marginalized communities
- Protection of river water quality for aquatic ecosystems
- Enhancement of available water resources through water conservation measures
- Promotion of sustainable agriculture by organic farming methods
- Environmental education and empowerment of local communities
- Sustainable Agriculture of Farmers



ABOUT MEERUT

- **GANGA AND YAMUNA RIVER *DOAB***
- **NEAR ABOUT 35 LACKS POPULATION (2011)**
- **TOTAL 663 VILLAGES, 12 SMALL TOWN, THREE TEHSIL AND 12 BLOCKS**
- **49 % POPULATION IN URBAN AND 51% IN RURAL**
- **HIGHT 224.34 M**
- **ANNUAL RAINFALL 741.30 Mi**
- **TOTAL AGRICULTURE LAND 203350 H**
- **3062 PONDS**
- **55000 TUBE WELLS AND BORE WELLS**

AGRICULTURE PATTERN

◎ CROP	AREA (H)
◎ SUGARCANE	136351
◎ WHEAT	83000
◎ PADDY	18860
◎ MAIZE	2540
◎ TOTAL LAND	203350



IRRIGATION PATTERN

SOURCE	AREA (H)
CANAL	40136
GOVT. TUBE WELLS	6483
PRIVATE TUBE WELLS	53498
OTHERS	323



BIO-DIVERSITY IN MEERUT

- ◎ HASTINAPUR FOREST
- ◎ SEVEN RIVERS
- ◎ HISTORICAL PONDS AND WELLS
- ◎ ANIMALS AND BIRDS ETC.
- ◎ CROPS
- ◎ BEST AGRICULTURE SOIL
- ◎ GROUND AND SURFACE WATER AVAILABILITY
- ◎ OTHERS

NOW PROBLEMS IN MEERUT

- **Ground water levels depleting**
- **Polluted rivers and ground water**
- **DECLINE FOREST AREA**
- **ANIMALS AND BIRDS**
- **DECLINE SOIL QUALITY**



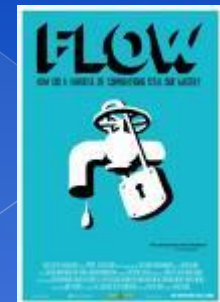
REASONS FOR CRISIS



- **Who is the owner of water?**
- **Careless administration**
- **Unreliability**
- **Pipeline shaped webs**
- **Extraction: hidden aspect**
- **Water or poison?**

GROUND WATER SITUATION of UP

- Over Exploited - 37 Blocks
- Critical - 13 Blocks
- Semi-critical - 88 Blocks
- Out of 820 development blocks in 70 districts of the ground water level (GWL) in over 50% is seriously affected,
- GWL in 140 blocks `really' a cause of worry
- Of these in 100 blocks, the ground water level is in the State of either `critical' or `semi-critical'.
- 22 development blocks of 13 districts was found to be `over-exploited' and `critical'
- the water level in 75 development blocks of 29 districts was 'semi-critical'.





GROUND WATER SITUATION of UP

- GWL is worse in Western part of the State where 70 per cent of the ground water had already been exploited
- While the ground water is used for irrigation and drinking water, the large share of agriculture exploitation leaves little margin of usage for drinking water.
- The wells, artificial ponds and natural lakes are being dried up and the hand pumps become non-functional due to low water level in most parts of the western U.P.,
- Even as the ground water status in the Western districts of Agra, Muzaffarnagar, Bijnore, Ghaziabad, Moradabad, Hathras and Meerut is cause of concern, the position in central districts of Fatehpur, Rae Bareli, Unnao, Jhansi, Jalaun and Lakhimpur Kheri is no better. Similar is the case with Eastern UP as well where the water level is going down considerably

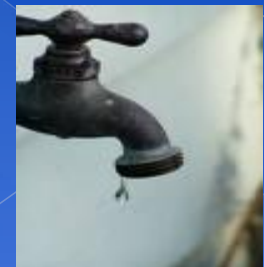


REDUCING WATER DEMAND

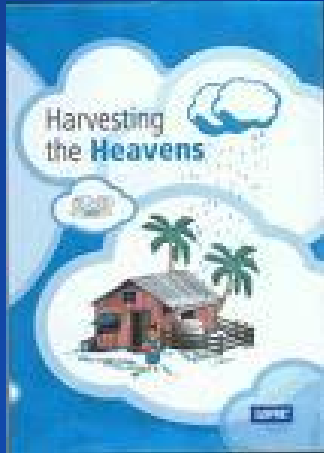
Simple techniques can be used to reduce the demand for water. The underlying principle is that only part of the rainfall or irrigation water is taken up by plants, the rest percolates into the deep groundwater, or is lost by evaporation from the surface. Therefore, by improving the efficiency of water use, and by reducing its loss due to evaporation, we can reduce water demand.

Ways to reduce losses

- **Sprinkler/ Rain Gun/Drip**
- **Land Preparation**
- **Mulching**
- **Growing pulses crops**
- **Alternate Furrow Irrigation**

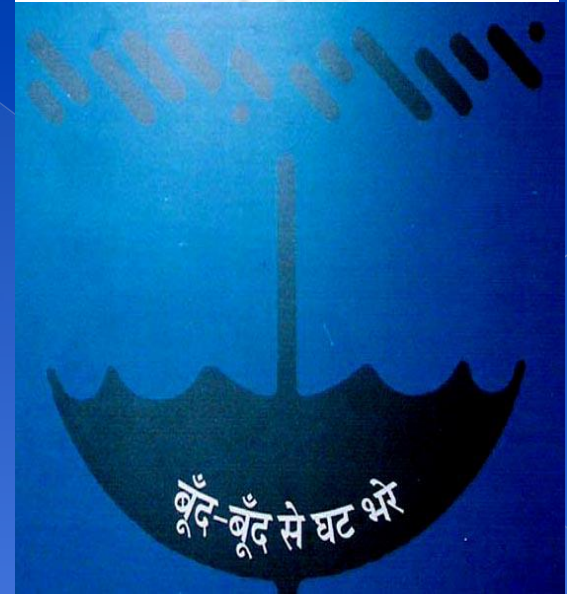


ULTIMATE SOLUTION : RAIN WATER HARVESTING



RWH is checking the rain water that goes wasted as run-off & conserving it by recharging the g.w. or by storing it in tanks

Precaution : Only and only rainwater is to be utilized for harvesting



VARIOUS WAYS OF PRACTICING RAIN WATER HARVESTING ACROSS THE WORLD



TAIWAN: THROUGH ROOF TOP RWH

THAI JAR PROGRAM

CHINA THE 121 PROJECT








VARIOUS WAYS OF PRACTICING RAIN WATER HARVESTING ACROSS INDIA



- **MEGHALAYA (BAMBOO)**
- **GUJARAT (BAWADI)**
- **RAJASTHAN (KUNDI & JOHAD)**
- **BIHAR (AHAR PAYN)**
- **LADDAKH (ZING)**
- **WESTERN UTTAR PRADESH (JOHAD, TALAB & WELLS)**
- **KERALA/KARNATAKA (MADAKAS)**
- **MAHARASHTRA (PHAD)**

पारम्परिक वर्षाजल संग्रह

जब से लोग इस धरती पर रह रहे हैं तब से पानी को सहेजा जाता रहा है। कई राजा आए और गये, पर जल स्वराज बना रहा। हर जगह लोगों ने अपने इलाके के मुताबिक पानी सहेजने के ज़रिए तैयार किए। कहीं बावड़ी तो कहीं आहर...

मेघालय		यहाँ बांस की नलियों द्वारा झरनों और अन्य स्रोतों के पानी को दूर-दूर तक ले जाने का चलन 200 वर्षों से अभी तक जारी है। इस तकनीक से पानी को सैकड़ों मीटर तक ले जाया जाता है।
बावड़ी (गुजरात)		यह वास्तुकला और जल विज्ञान का अद्भुत रूप है, जो सातवीं शताब्दी के बाद देश के कई हिस्सों में फैला। पाँच-छः मंजिलों वाले इन बावड़ियों में जल कलात्मक सिद्धियों से खेलता था।
कुन्डी (राजस्थान)		कुन्डियाँ बहुत ही अद्भुत चीज हैं। ये एक विशाल तश्तरी की तरह होती हैं और इसने बीच में एक स्तूप से आकृति होती है। इन बरसात का पानी जमा किया जाता है।
आहर पड़न (बिहार)		यह प्रणाली संभवतः जातक युग से ही प्रयोग में लाई जा रही है। इसके तहत बाढ़ का पानी बाढ़ के दिनों के लिए जमा कर लिया जाता है।
ज़िंग (लद्दाख)		यहाँ सर्द और पथरीले रेगिस्तान में नखलिस्त की तरह जहाँ-तहाँ होने वाली खेती पूरी तरह पिघलते बर्फ के पानी पर निर्भर करती है। बिहार पिघली बर्फ का पानी शाम और रात में पड़चता है, जिसे जिंग नामक छोटे तालाबों में रोक लिया जाता है।

कभी-कभी सूना क्या करेहें वेना नू आरू जाग, जाके संग ते रोडिडा ताहे के संग लाया!

STATUS OF OUR REGION WITH RESPECT TO RAINFALL

AVERAGE RAINFALL 1995 TO 2012
(In mm)



The trend shows that the rainfall during the past decade has fallen at an alarming rate.

In the year 2005 and 2008 Meerut district was declared partially drought prone.



YEAR	RAINFALL
1995	877.64
1996	1056.90
1997	995.90
1998	1393.40
1999	694.70
2000	839.60
2001	463.06
2002	890.00
2003	1006.20
2004	896.90
2005	758.40
2006	592.30
2007	373.70
2008	437.40
2009	430.00
2010	950.00
2011	860.00
2012	950.0
2013	1030.00
2014	940.00
2015	980.00



ADVANTAGES OF RAIN WATER HARVESTING

- Ground water is not directly exposed to evaporation and pollution
- Storing water underground is environment friendly
- Increases the ground water table
- Reduces power consumption
- Reduces soil erosion
- Improves ground water quality
- Even the adjacent ground gets benefited
- Stops water logging



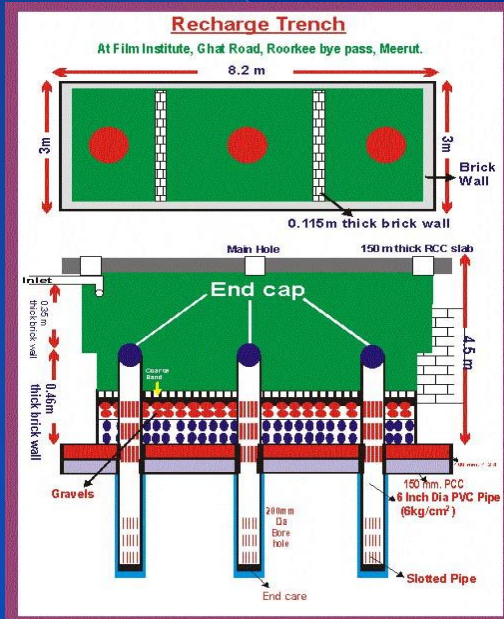
POTENTIAL OF RAIN WATER HARVESTING



- **Effect on groundwater level**
- **Supply and Demand : Meerut City**
- **Case study Cherapunji and Jaisalmer**



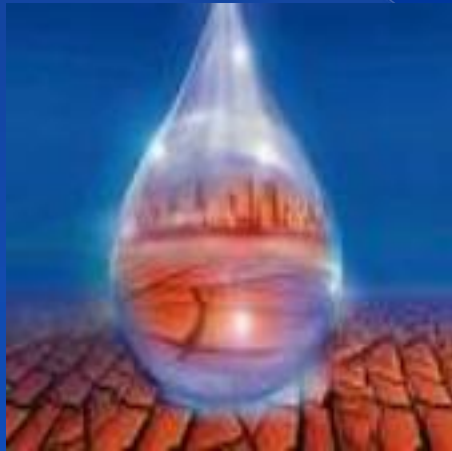
NEER FOUNDATION'S EFFORT TOWARDS RAIN WATER HARVESTING



- Campaigns and activities
- How could an individual or an institution be benefited
- Services provided
- Aims and objectives
- 60 Sites adopt RWH



JOIN HANDS FOR OUR EARTH



Thanks



NEER

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