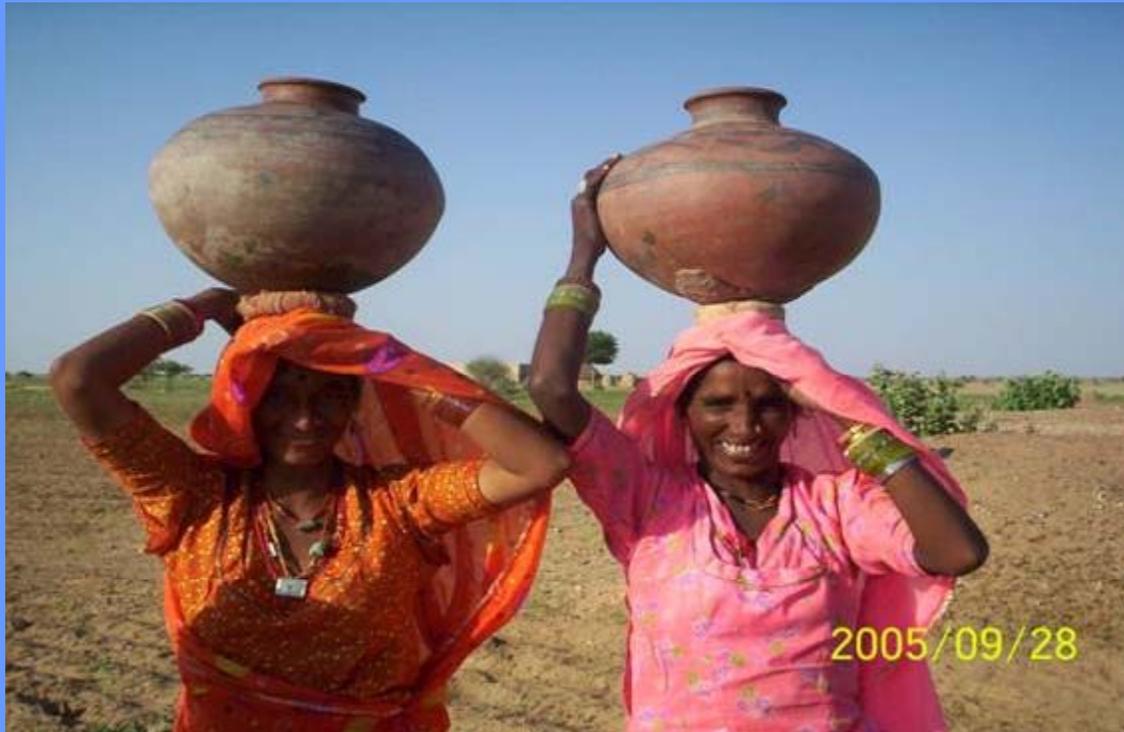


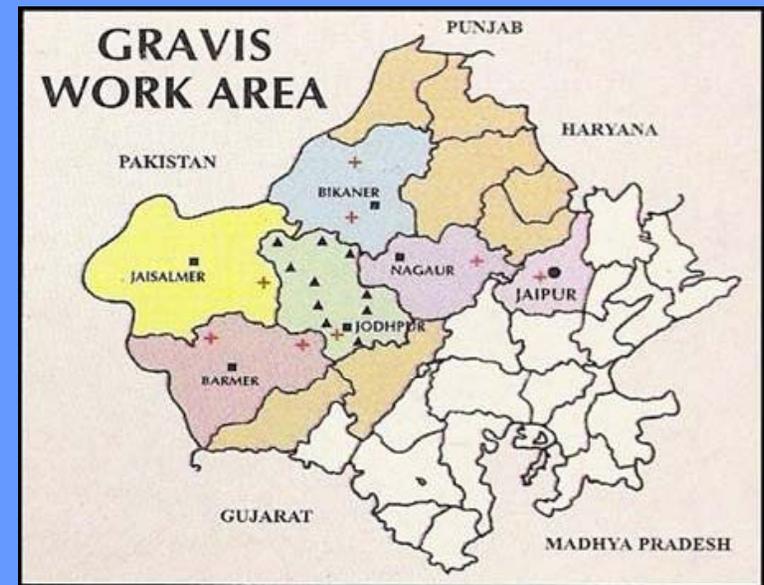
# GRAVIS

## Empowering the Thar Desert Communities



# The Organizational Profile

- Founded in 1983
- GRAVIS has 15 field centers and Office across Thar
- Has administrative office in Jodhpur
- Works with 11 local partner NGOs
- Employs over 183 FT and 400 PT people
- Covers over 1000 villages of 6 districts reaching about 1 million people



# Objectives of GRAVIS

- Develop self-reliant rural communities
- Organize developmental activities with community involvement aiming at sustainability
- Blend traditional wisdom with modern sciences
- Work for vulnerable and most needy groups
- Facilitate networking and linkages

# Activities Undertaken

- Water security
- Food and fodder security
- Community health
- Primary education
- Animal husbandry
- Empowerment of women and older people



# **Harvesting Rain – A Sustainable solution to Climate Change in Western Rajasthan**

# Impact of climate change in Western Rajasthan

- Extreme temperatures and heat spells have already become common over North India. Each year is the hottest or coldest in comparison to last few years. Rajasthan records highest 49 deg and lowest 5 deg in 2011.
- Changes are already being noticed in the rainfall pattern of the subcontinent from last 6 years. Rajasthan recorded 737 mm rainfall in 2011 compared to 530 mm normal rainfall (39% more rainfall of its normal rainfall).
- Farmers adopting mono cropping rather than mix cropping. Monsoon based agriculture pattern changing to winter based agriculture.
- Decreased interest in keeping small ruminants leading to decrease in animal population leading to decreased migration for grazing purpose.

# Impact of climate ... cont...

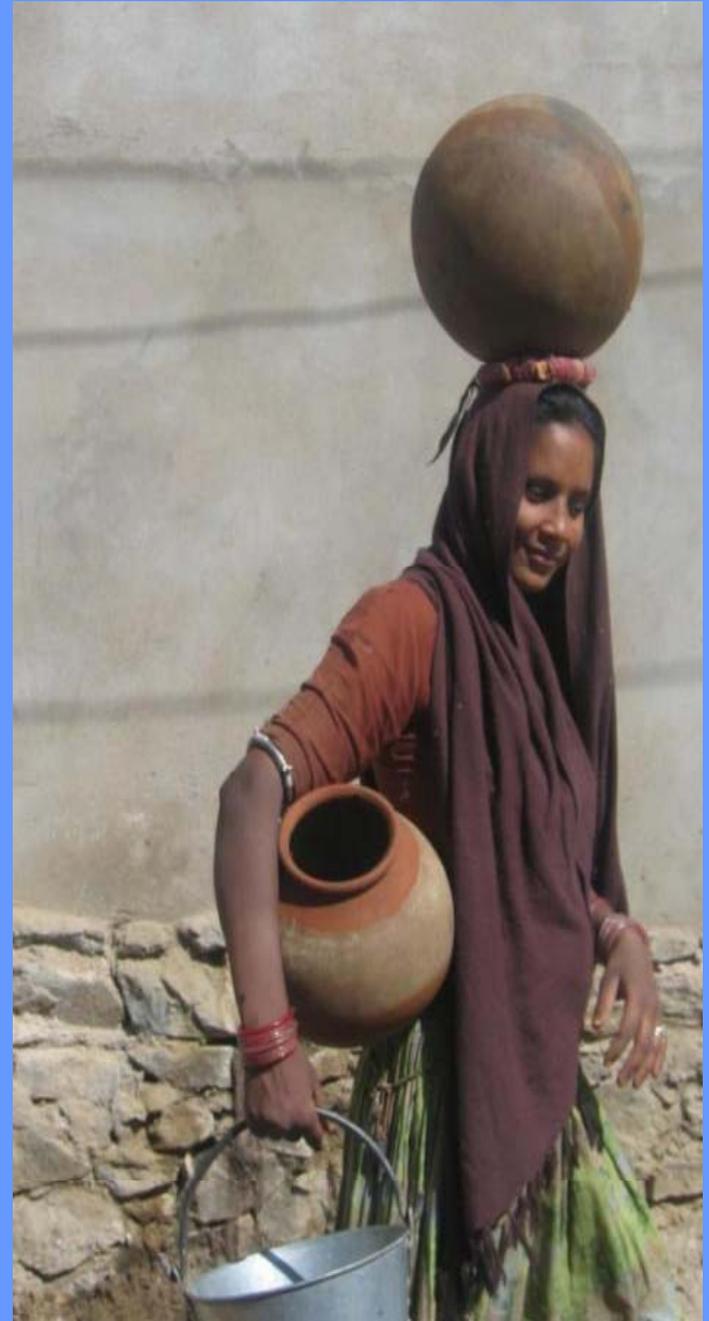
- Uncertain and heavy rainfall from last 5-6 years. Drought prone area has changed into flood prone area. Flood in Barmer-Rajasthan (2006) and again recent flood in Rajasthan (2012) in 12 districts mostly affecting Bikaner & Jaipur indicates climate change in Desert.
- Spreadness of diseases like malaria and dengue in Desert land unutilization of access water.



# MAJOR CHALLENGES

## SCARCITY OF WATER

- Increase in dry season
- Shifting pattern of Rain
- Not often but some time flood like situation occurred in Drought prone area.



# WATER SECURITY AND DROUGHT MITIGATION

- Taankas
- Khadins
- Village ponds



# A Taanka

## Rainwater harvesting Taanka

- Natural or Artificially prepared catchment area
- Rooftop or Court Yard

## Benefits From Taanka

- Drinking water available for 4-8 months
- Prevents water borne diseases
- Improves health and sanitation
- Saves money & time spent on fetching water



# A De-silted Naadi (Village Pond)

## Naadi / Village Pond

Requires a Large Catchment Area-100-500 Ha.

- The down slope is excavated into a Big Pit
- Excavated Earth Is Piled Up As A Bund
- **Benefits From Naadi :**
  - Recharges Wells
  - Increase in water availability for whole year
  - It serves human beings, livestock and wild life



# MAJOR CHALLENGES

## Crop Failure

- **Less or no rain in agriculture season i.e. June – July**
- **Heavy rain in August damages staple crops like millet.**
- **Unavailability of fodder which leads decreased number in small ruminants.**



# Khadin (farm bund)

- Khadin is A Runoff Farming System
- It is a low height earthen structure built along three sides down slope of an agriculture field.
- Upslope of the land is kept open to receive rain water.
- Runoff from Large Catchment is intercepted against 2-3 m. high stone wall down slope
- Crops are grown in the silted up run-on area
- Spillway is a must for long lasting

## Benefits From Khadin :

- Food grain and Fodder security increases by 2.5 to 3 times
- Multiple crops like mustard, sorghum, barley, green gram, mustered, wheat, etc.
- Reduction in migration
- Provide Support To Trees Like Khejri, Kumat & Bordi
- Increase food security
- Moisture Retain
- Check Soil Erosion



# Opportunities/Way Forward

- Promoting and adopting traditional practices with scientific improvement
- Promoting common resource management to reduce the affects of disaster.
- Further strengthening of CBOs
- Focus on disaster risk reduction and preparedness trainings
- Continuing research and advocacy to protect natural resources.



[www.gravis.org.in](http://www.gravis.org.in)



**Thank You**