

**Modern Problems: Traditional Solutions
Climate Change/ Water & Food Security**

AN EXPERIENCE OF TARUN BHARAT SANGH



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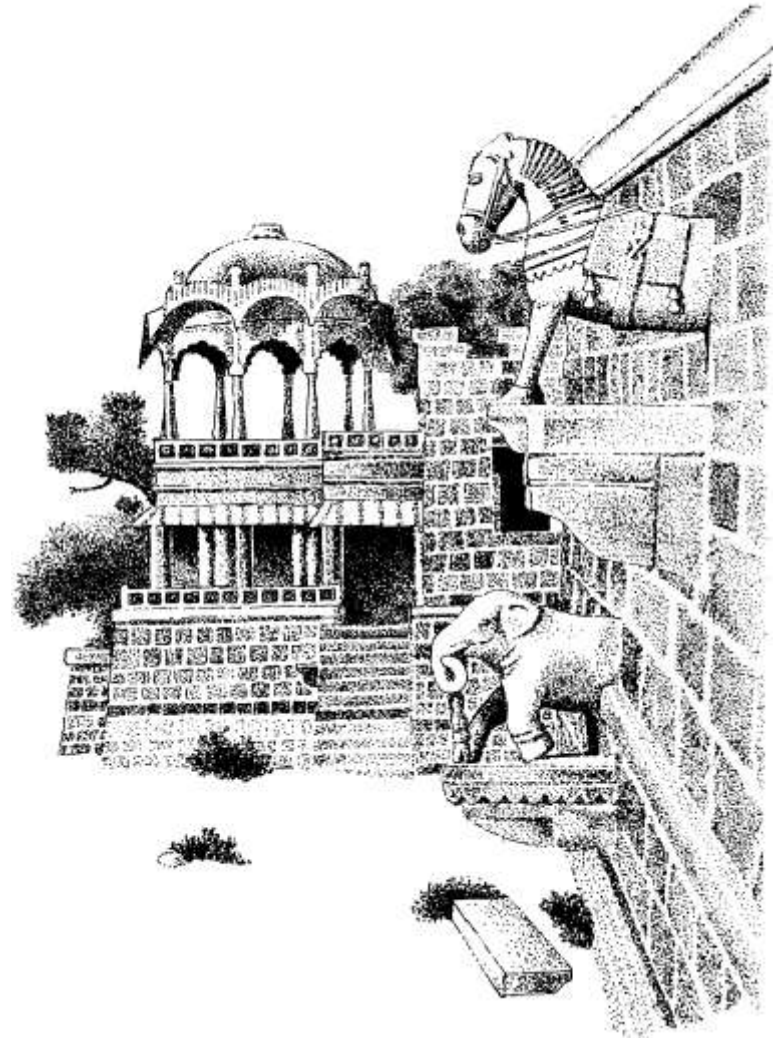
Traditional

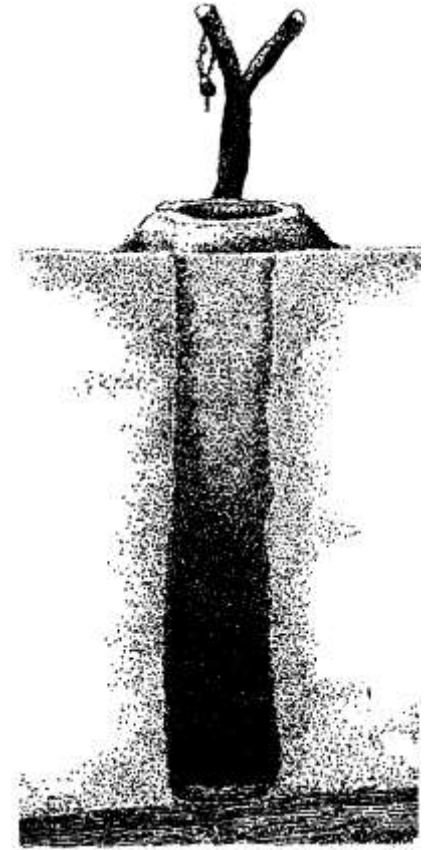
WATER HARVESTING SYSTEMS IN INDIA

THERE ARE VARIOUS
METHODS OF WATER HARVESTING
EXISTING IN INDIA.

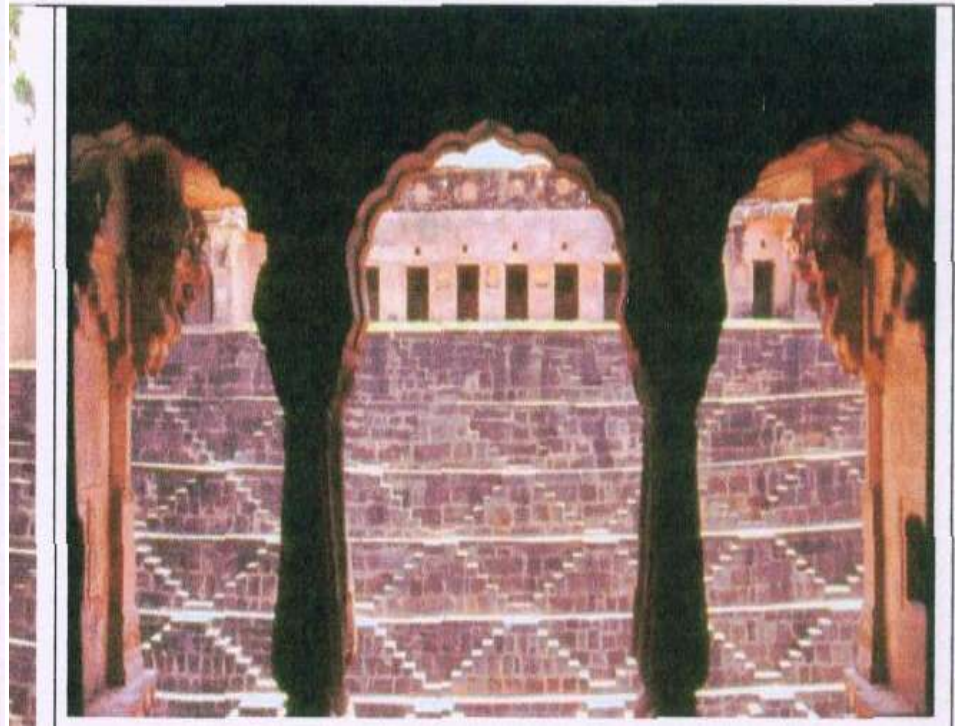
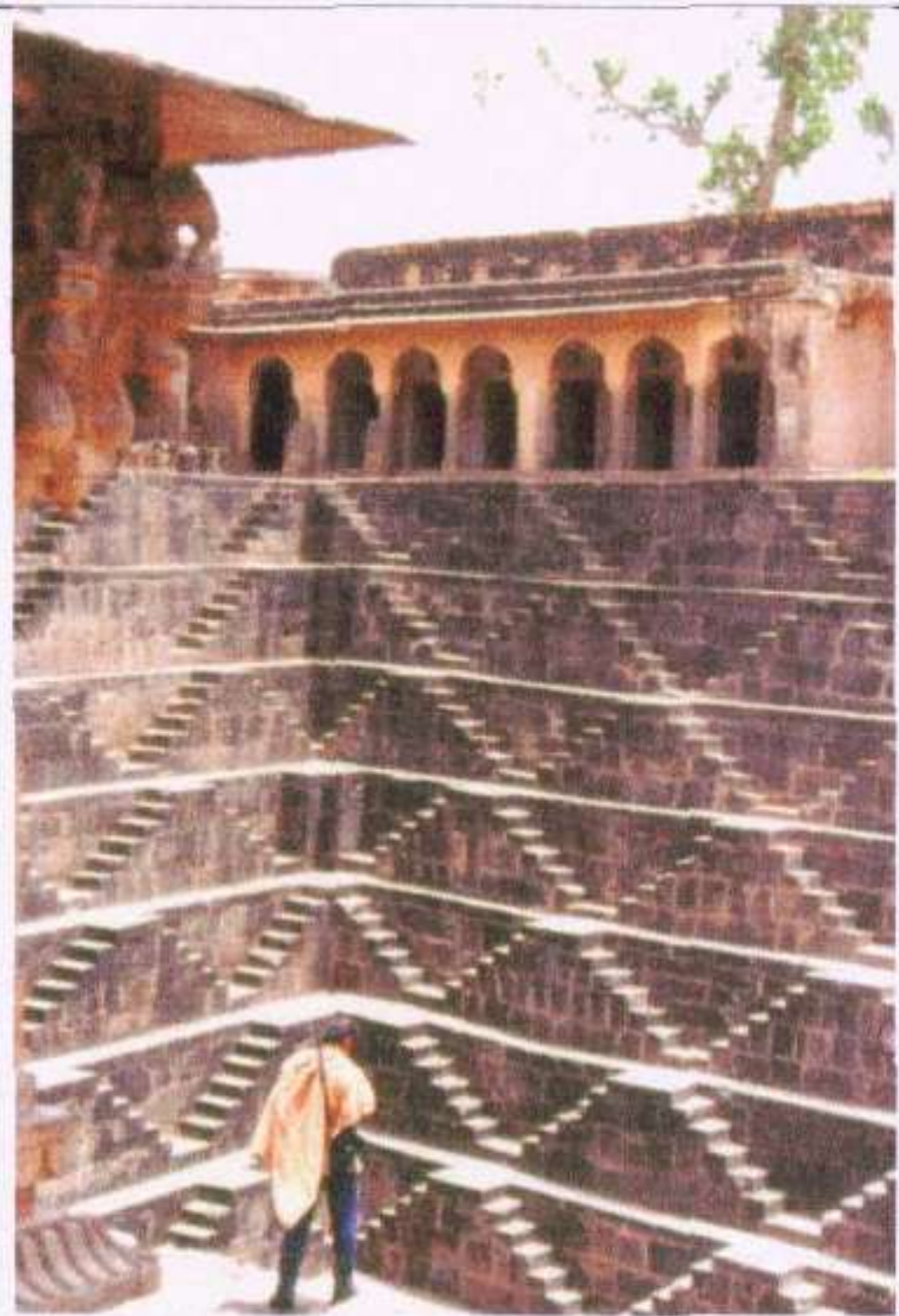
THE MAIN COMMON PECULARITIES
OF ALL SYSTEM ARE :

- USE OF LOCAL RESOURCES AND TECHNOLOGY
- COMMUNITY BASED OPERATION
- COMMUNITY DRIVEN DE-CENTRALISED WATER MANAGEMENT
- CONSERVATION AND DISCIPLINED USE OF NATURAL RESOURCES





.....*Since beginning*



..... **B**EAUTIFUL
& SUSTAINABLE



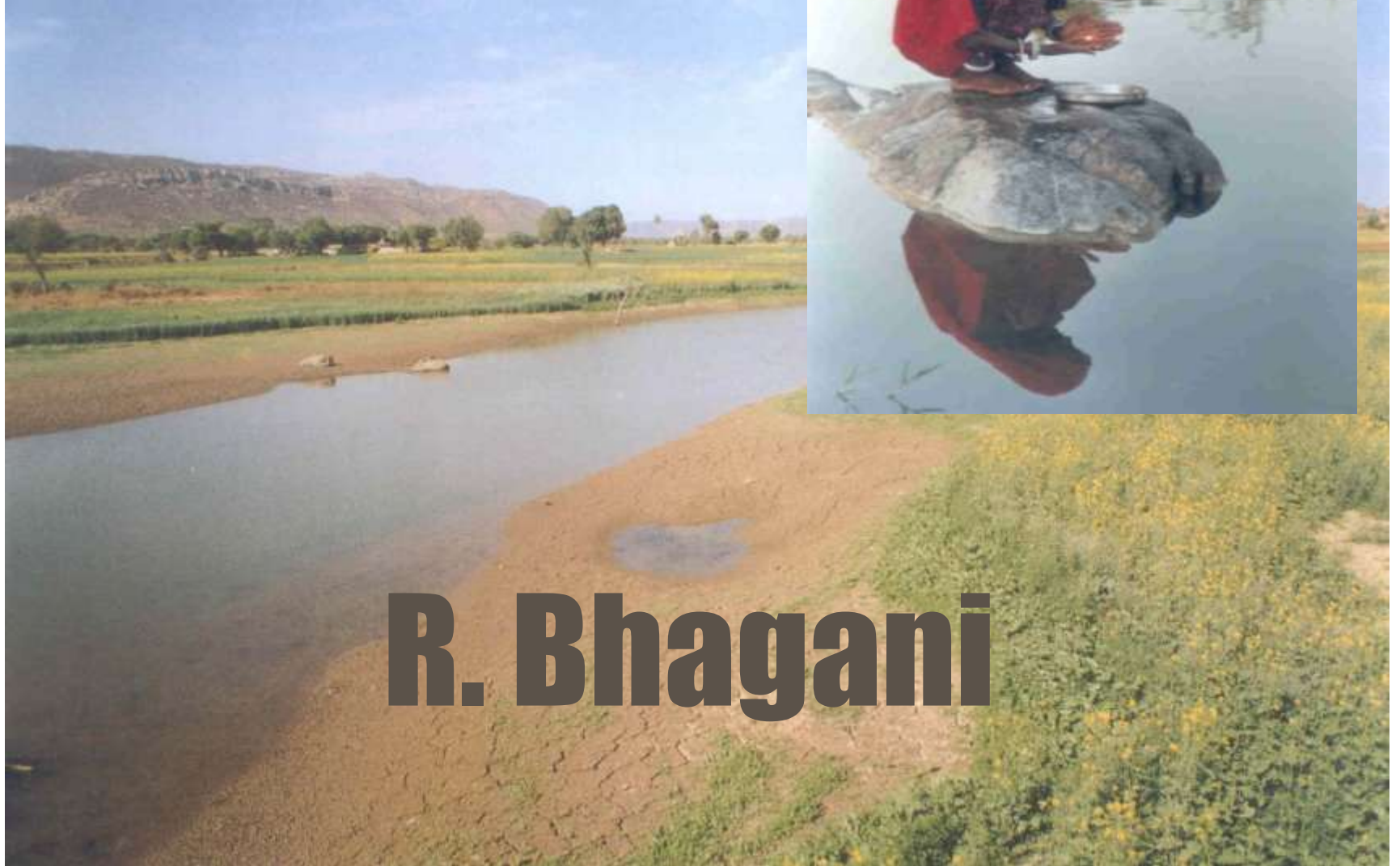


Why THEY WENT OUT OF USE?

- INCREASE IN HUMAN AND LIVESTOCK POPULATION
- WATER EXTRACTION TECHNOLOGY
- CHANGED PARADIGM OF DEVELOPMENT
- STATE TAKEOVER OF COMMUNITY FUNCTIONS
- CREATION OF DEPENDENCY SYNDROME
- DISINTEGRATION OF COMMUNITY INSTITUTIONS
- PEOPLE LOST INITIATIVES AND CREATIVITY
- NEGLECT OF TRADITIONAL SYSTEMS

REVIVAL OF SYSTEMS USING INDIGENIOUS KNOWLEDGE

- INTERVENTIONS UNDERSTANDING TRADITIONAL SYSTEMS AND USE OF INDIGENIOUS KNOWLEDGE
- MOBILISATION OF COMMUNITY AROUND LAND, WATER, AND FOREST
- PARTICIPATION IN REJUVENATING OLD STRUCTURES AND CONSTRUCTION OF NEW STRUCTURES
- CREATION OF NEW VILLAGE LEVEL AND RIVER BASIN INSTITUTIONS



R. Bhagani

THE SITUATION IN

1985



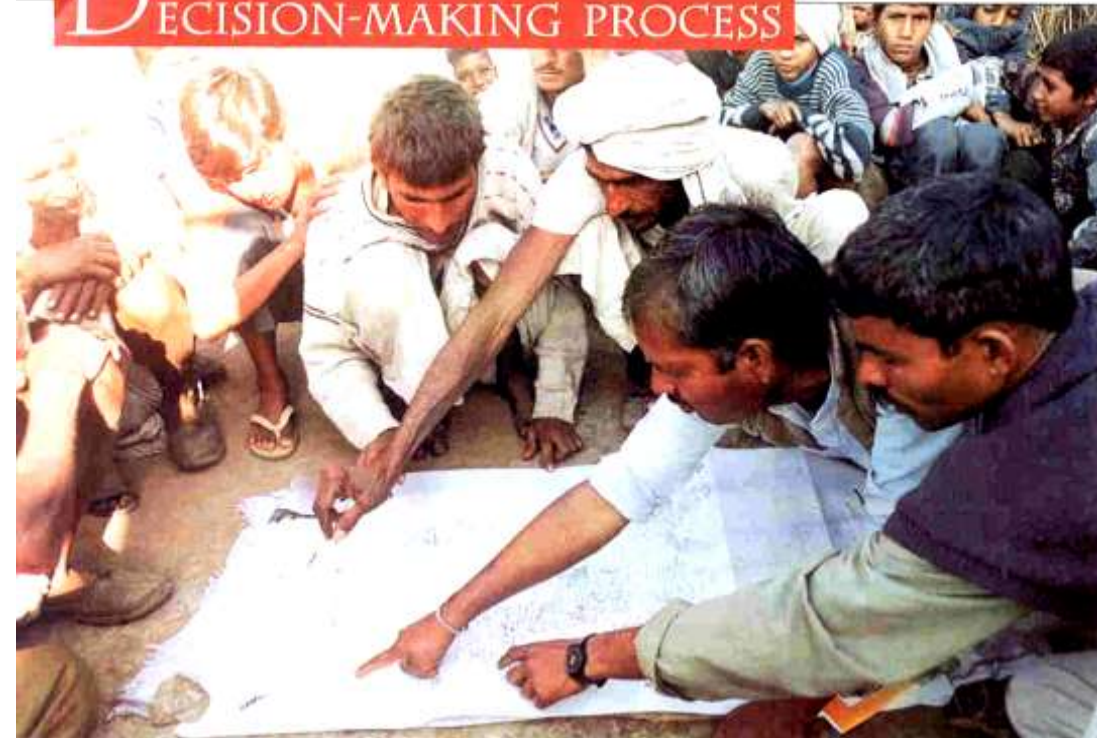


1985

*Degraded and barren land
in the catchment areas of Arvari river
& extended drought
had forced people to migrate
out of their villages.*



DECISION-MAKING PROCESS

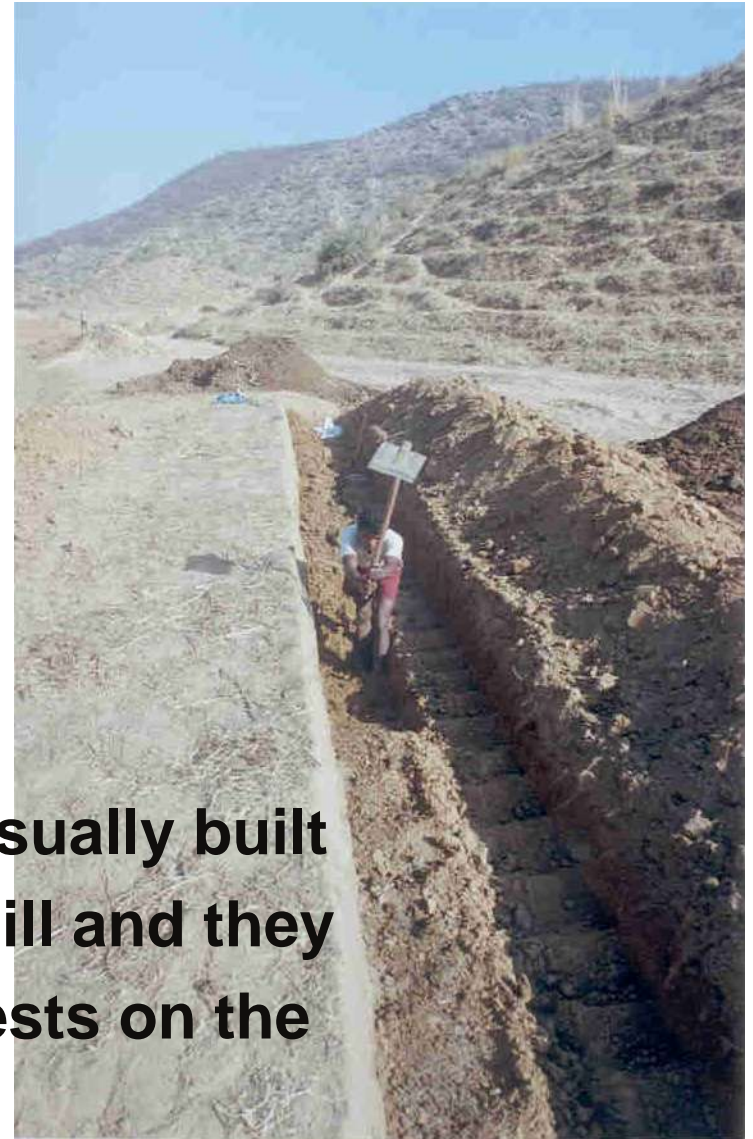


Maximum possible use was made of people's traditional technology and wisdom with the help and advice from engineers if needed.



Minimum 30% of total cost was to be contributed by community for each project – the rest was to come from financial support agencies through TBS

WATER harvesting structures taking shape



Johads and dams are usually built on small tributaries uphill and they directly benefit the forests on the hill.



.....*Ideas into reality*

BRINGING PEOPLE TOGETHER



Success of the first Johad inspired people to take up the building of more such structures – the connection between water and forests was made and this also led to the revival of traditional rules.

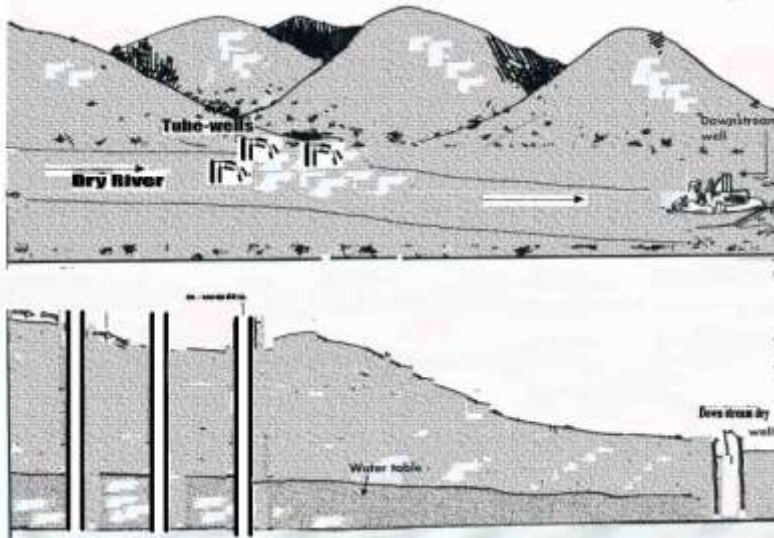
In the past, forest ownership had been taken over by the Forest Department, leading to alienation of the people and loss of traditions of conservation – making it difficult to bring people together again.



COMPLETED STRUCTURES ON Bhagani BASIN

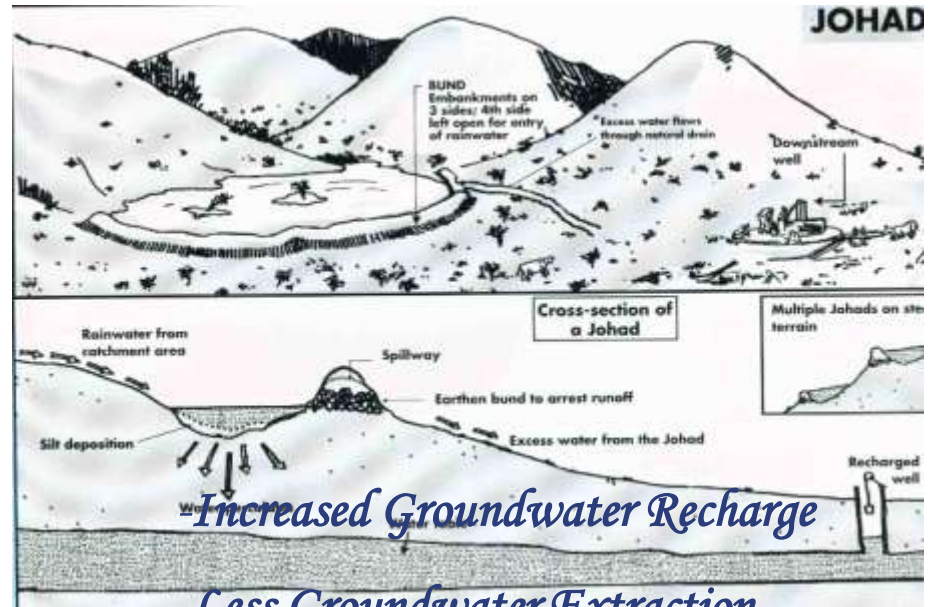


River Goes Dry:



Excess withdrawal of Groundwater

River is flowing:



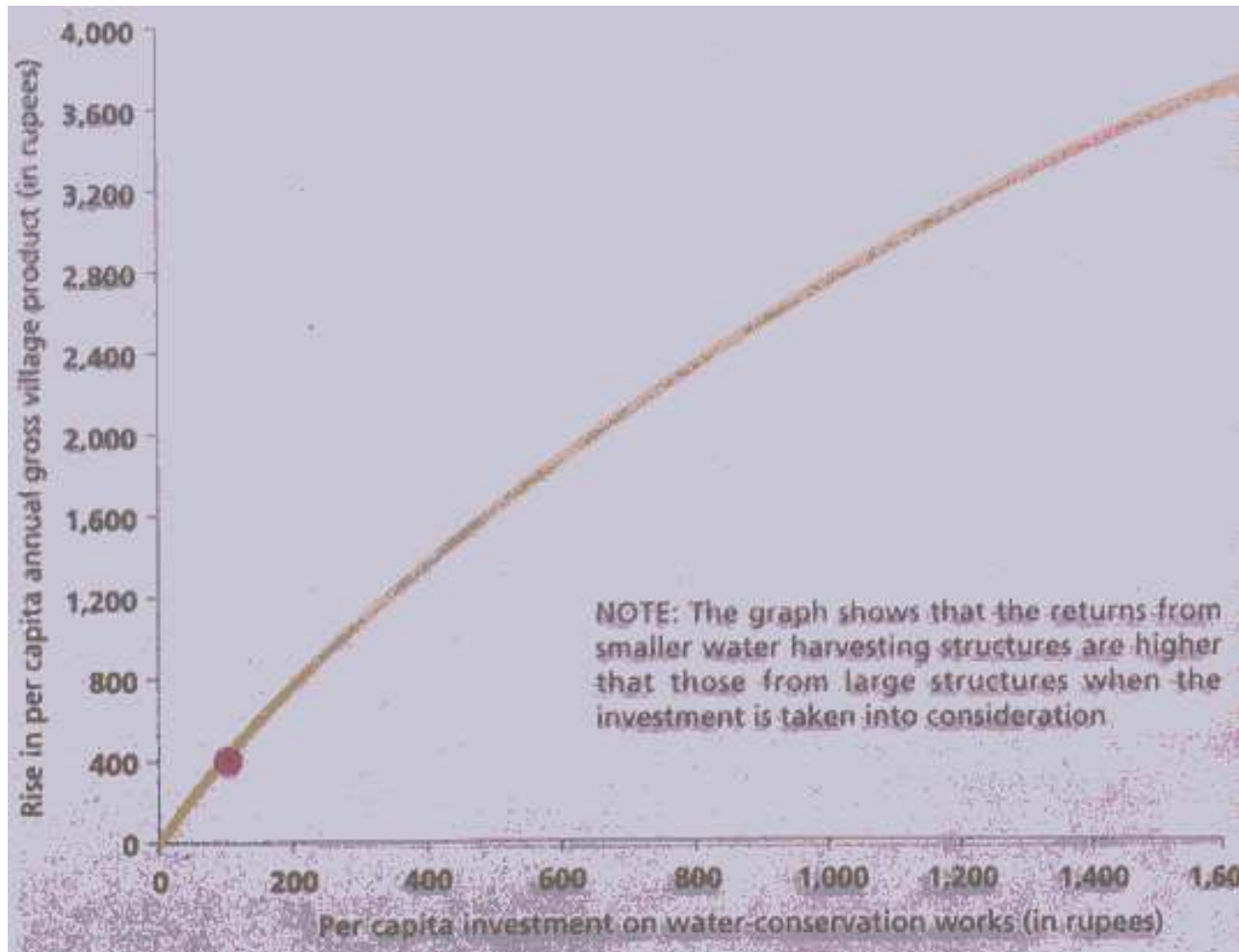




BENEFITS

- 1. Sustainable & Reliable water availability for Human beings and livestock**
- 2. Increase in agriculture and milk production ensuring food security**
- 3. Restoration of ecology and bio-diversity in the area as an adaptation to climate change**

SMALL INPUTS : GREAT RETURNS



Increasing investment on small water conservation works brings increasing economic returns.

An investment of Rs.100 per capita on Johad raises the economic production in the village by as much as Rs.400 per capita per annum.



The magic of Bhagani river over 12 years



The river had disappeared in
1940s, and was revived in
1997 through the efforts of
Tarun Bharat Sangh

The River Basin Organization

Water Demand side management



Rules are framed about issues of water conservation and utilization, and forest conservation.



11 ASPECTS OF The River Basin Org.

1. Framing of rules regarding direct irrigation from the Bhagani river and the wells.
2. Framing of rules regarding crops and cattle feed.
3. Rules to first fulfill local needs with crop production.
4. No sale of water and conservation of fishes in the river.
5. Restriction on the sale of land and the efforts to reduce the need to sell land.
6. Making the whole river area green, ban mining and restrict extended grazing by nomadic grazers.
7. Restrictions on hunting of animals and illegal cutting of trees.
8. Revive traditional methods of water and forest conservation.
9. Prevent over exploitation of water and promote water conservation work.
10. Establish an active system of the management of the river.
11. Define and redefine the role of the village communities.

USE OF INDIGENEOUS KNOWLEDGE IN TBS WORK

AWARENESS IN THE COMMUNITY

- Awareness of various aspects of water management
- Respect for culture, traditions and historical practices
- Will to work together for community's common interest

WORKING STRATEGY

- Constitution of Village Councils – Monthly meetings of all grown ups
- Maximum possible use of traditional technology with advice from engineers if needed
- All decisions including technical (siting, materials, design etc.) by Gram Sabha
- All decisions by consensus, and not majority
- Role of women in helping reach consensus
- Min. 30% of total cost contribution by community – rest from support agencies thru TBS

OPERATION AND MAINTENANCE

- Total responsibility assumed by the community

WATER – ABSTRACTION AND USE MANAGEMENT

- River Based Organization
- Responsible for planning & enforcing sustainable use of water, particularly in agriculture

BLUE *brought* GREEN



BLUE *brought* PROSPERITY



BLUE *brought* HAPPINESS



....That
is how

BLUE

brought

CHANGE

Thank you...