

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

# **FLOW: AN EXPERIENCE OF TBS**



**By:  
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# Why THEY WENT OUT OF USE?

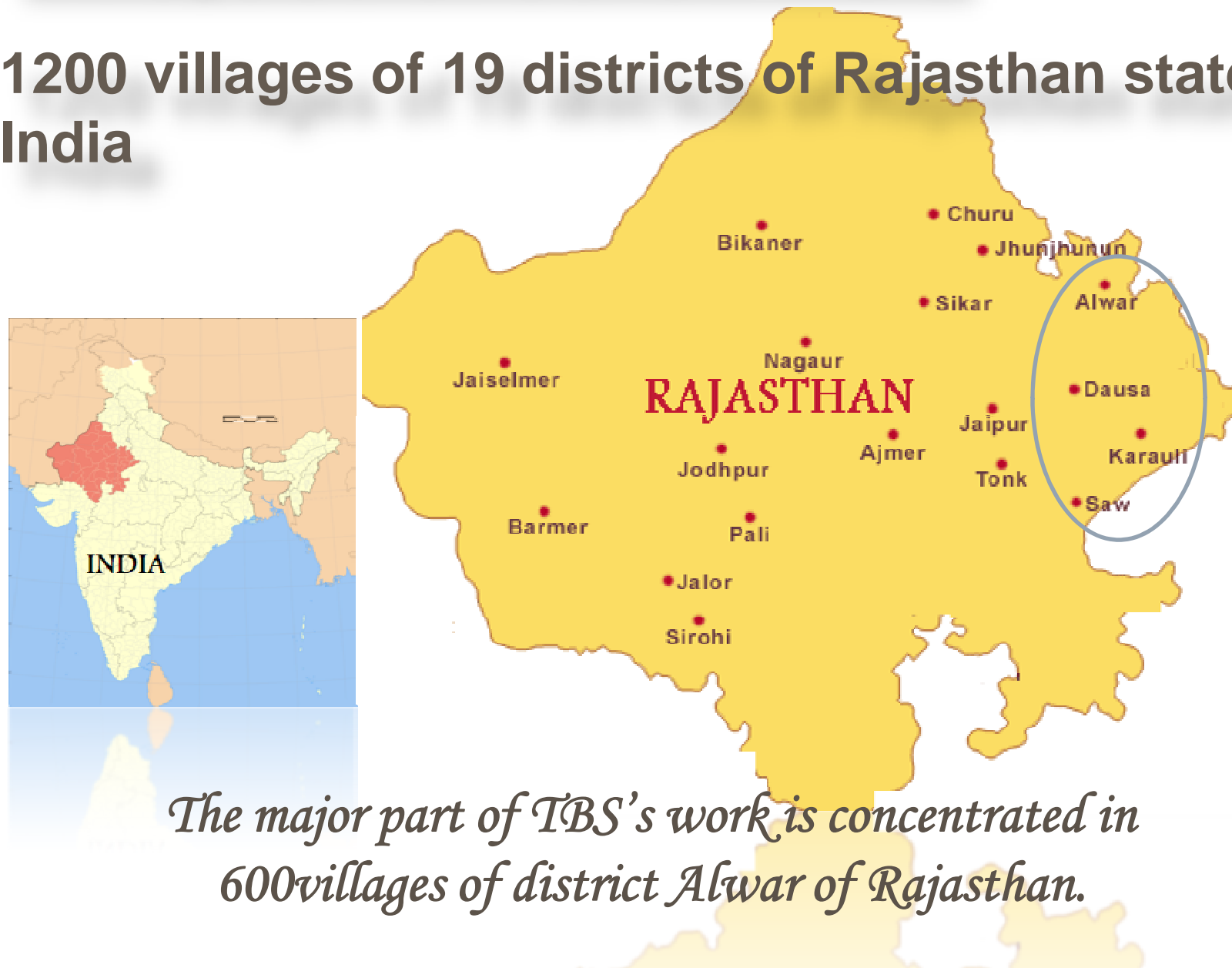
- INCREASE IN HUMAN AND LIVESTOCK POPULATION
- WATER EXTRACTION TECHNOLOGY
- CHANGED PARADIGM OF DEVELOPMENT
- STATE TAKEOVER OF COMMUNITY FUNCTIONS
- CREATION OF DEPENDENCY SYNDROME
- DISINTEGRATION OF COMMUNITY INSTITUTIONS
- PEOPLE LOST INITIATIVES AND CREATIVITY
- NEGLECT OF TRADITIONAL SYSTEMS

# **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

# Project area of TBS

1200 villages of 19 districts of Rajasthan state of India



*The major part of TBS's work is concentrated in 600 villages of district Alwar of Rajasthan.*





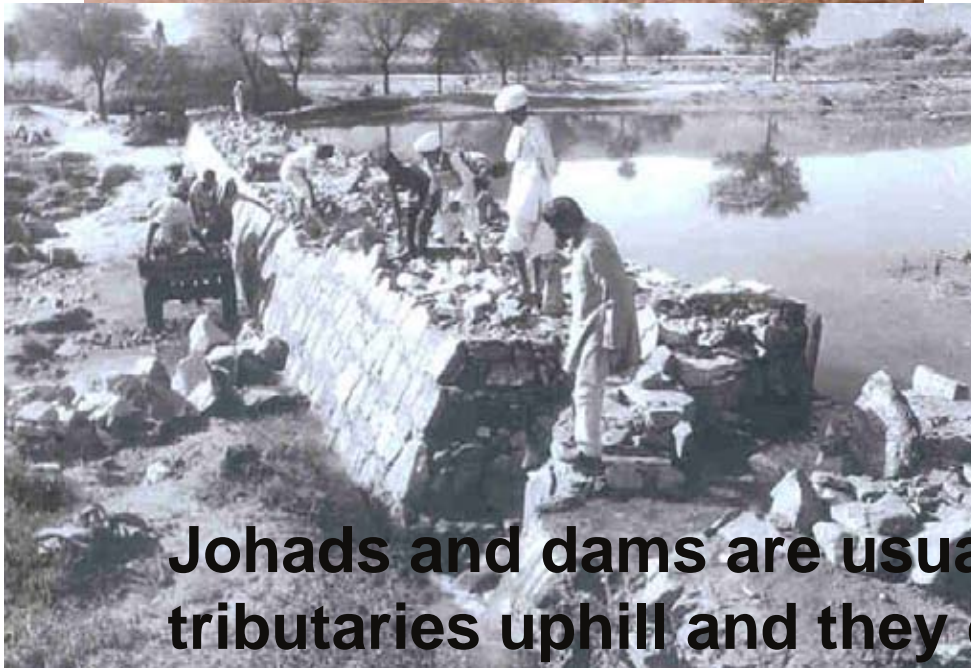
1985

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





# **WATER** harvesting structures taking shape



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

# 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.





.....*Ideas into reality*





## COMPLETED STRUCTURES ON Bhagani BASIN



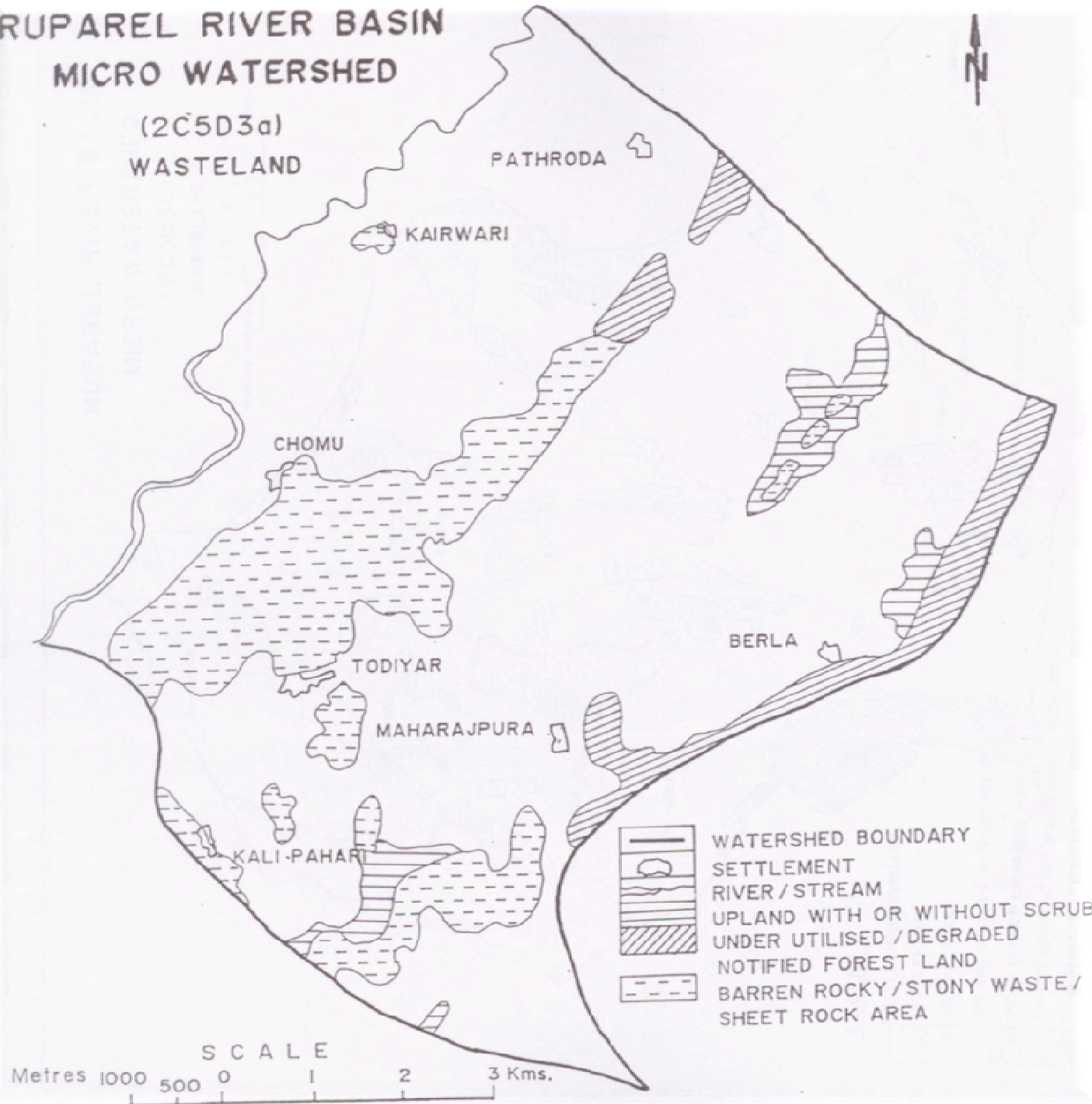


*Increased water-level in a well*



# RUPAREL RIVER BASIN MICRO WATERSHED

(2C5D3a)  
WASTELAND



*Waste land in  
Ruparel River  
Basin*

*Micro-watershed:  
2C 5D 3a*

*In 1993*

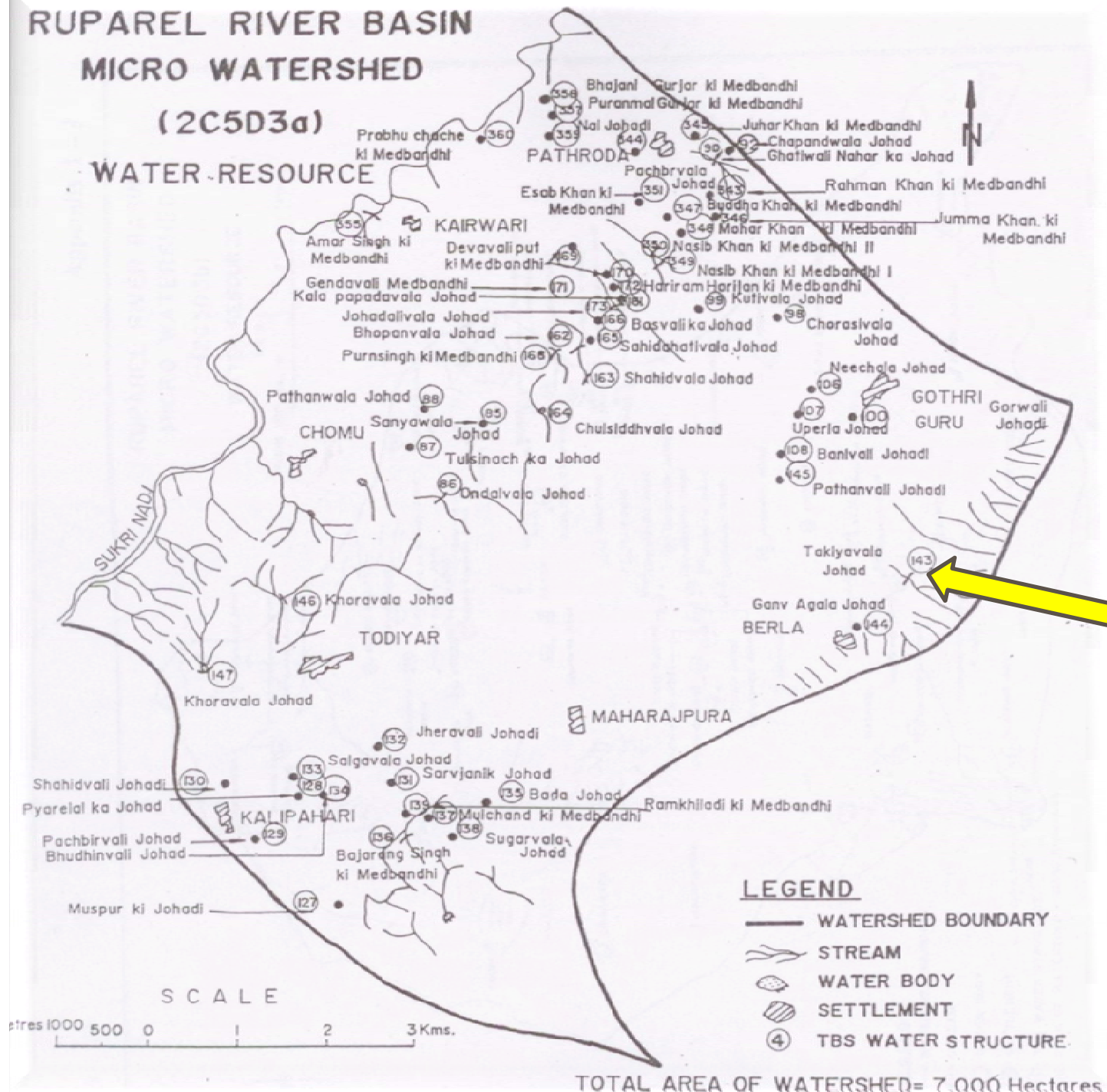
*Total wasteland:  
1057.5 ha*

*Reference: A study  
on TBS's works in  
40 villages  
undertook by Dr.  
K.N.Joshi, Inst. of  
Development  
Studies, Jaipur*

# RUPAREL RIVER BASIN MICRO WATERSHED

(2C5D3a)

## WATER RESOURCE



*Water Resource in  
Ruparel River  
Basin  
Micro-watershed:  
2C5D3a*

*After 1993  
55 RWH  
structures have  
been built by TBS  
in the micro-*

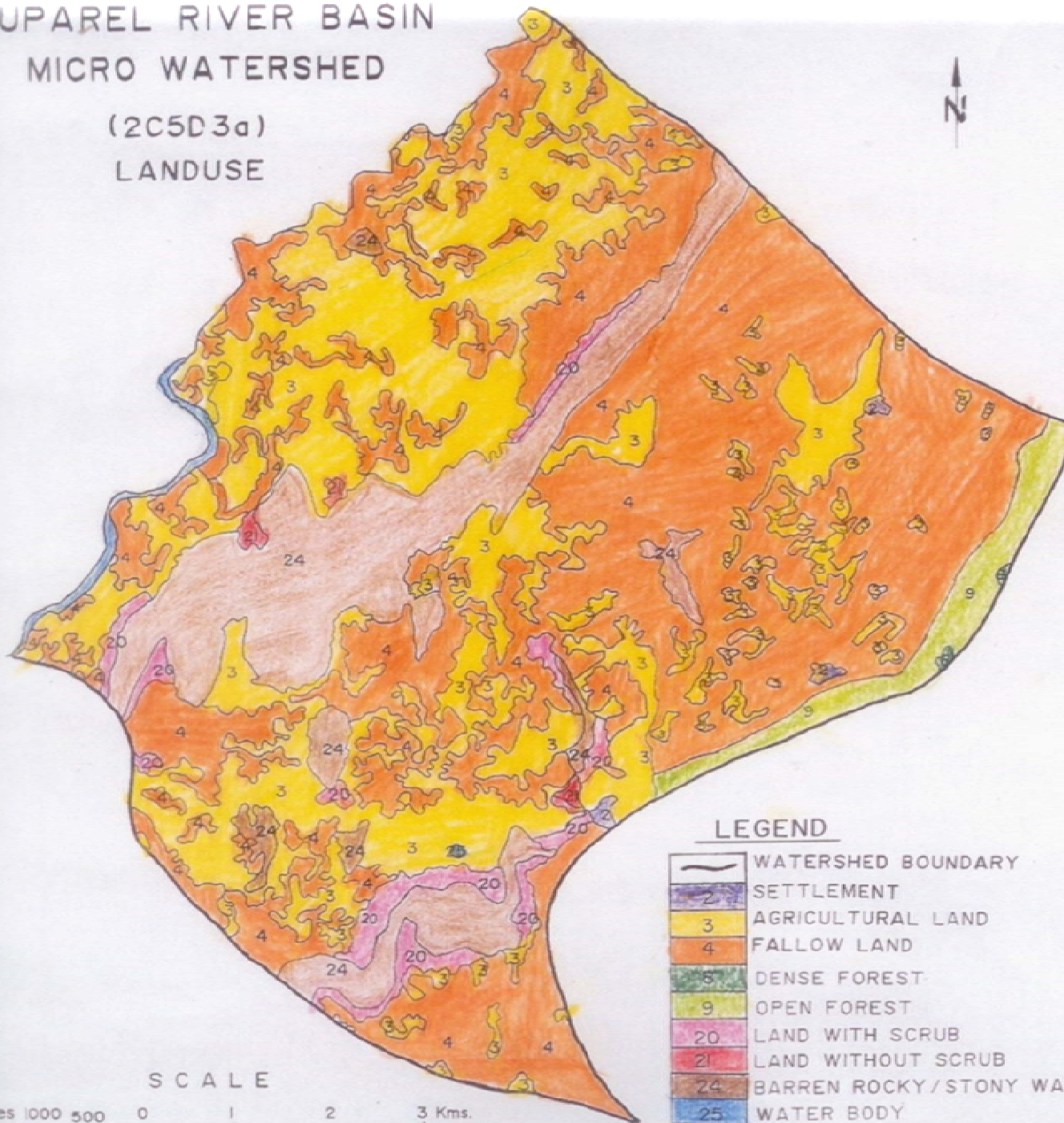
*watershed.  
Reference: A study  
on TBS's works in  
20 villages  
undertook by Dr.  
K.N.Joshi, Inst. of  
Development  
Studies, Jaipur  
RWH marked in  
the Picture.*



# RUPAREL RIVER BASIN MICRO WATERSHED

(2C5D3a)

LANDUSE



## LEGEND

|  |                          |
|--|--------------------------|
|  | WATERSHED BOUNDARY       |
|  | SETTLEMENT               |
|  | AGRICULTURAL LAND        |
|  | FALLOW LAND              |
|  | DENSE FOREST             |
|  | OPEN FOREST              |
|  | LAND WITH SCRUB          |
|  | LAND WITHOUT SCRUB       |
|  | BARREN ROCKY/STONY WASTE |
|  | WATER BODY               |
|  | RIVER / STREAM           |

## SCALE

Metres 1000 500 0 1 2 3 Kms.

*Land Use in  
Ruparel River  
Basin*

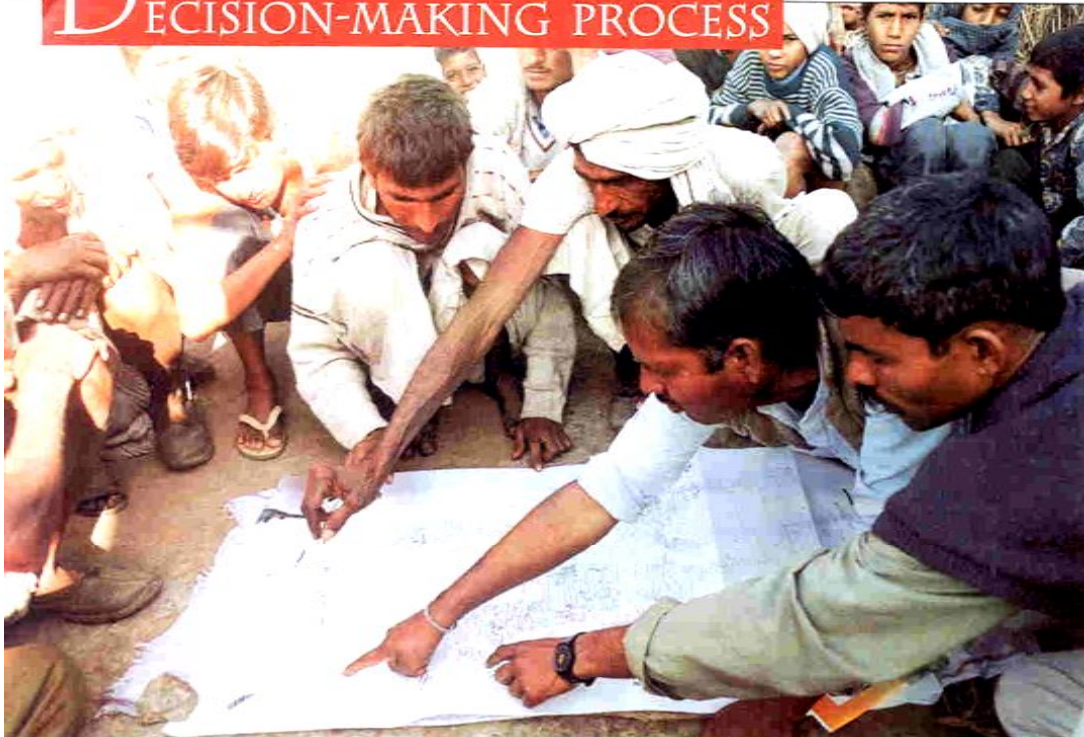
*Micro-watershed:  
2C 5D 3a*

*In 2001  
Total wasteland:  
Nil*

*Most part of the  
land has been  
converted into  
agricultural land or  
seen as fallow land*

*Reference: A study  
on TBS's works in  
40 villages  
undertook by Dr.  
K.N. Joshi, Inst. of  
Development  
Studies, Jaipur.*

## DECISION-MAKING PROCESS



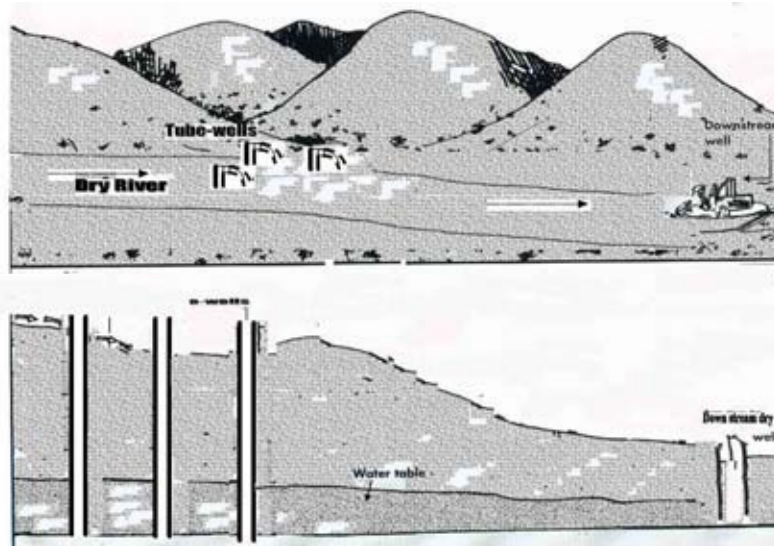
Maximum possible use was made of people's traditional technology and wisdom with the help and advice from engineers if needed.



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

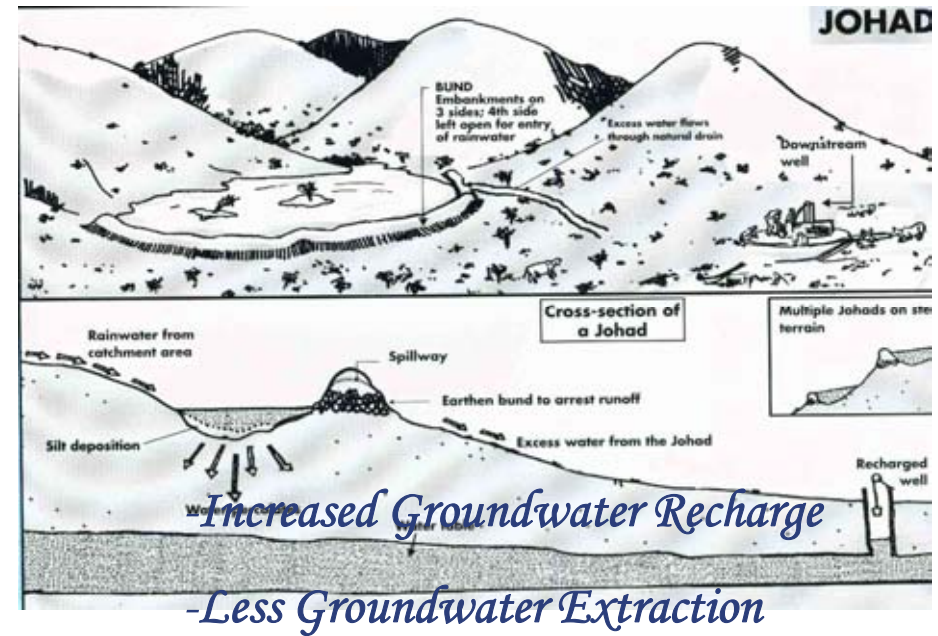


## River Goes Dry:



*Excess withdrawal of Groundwater*

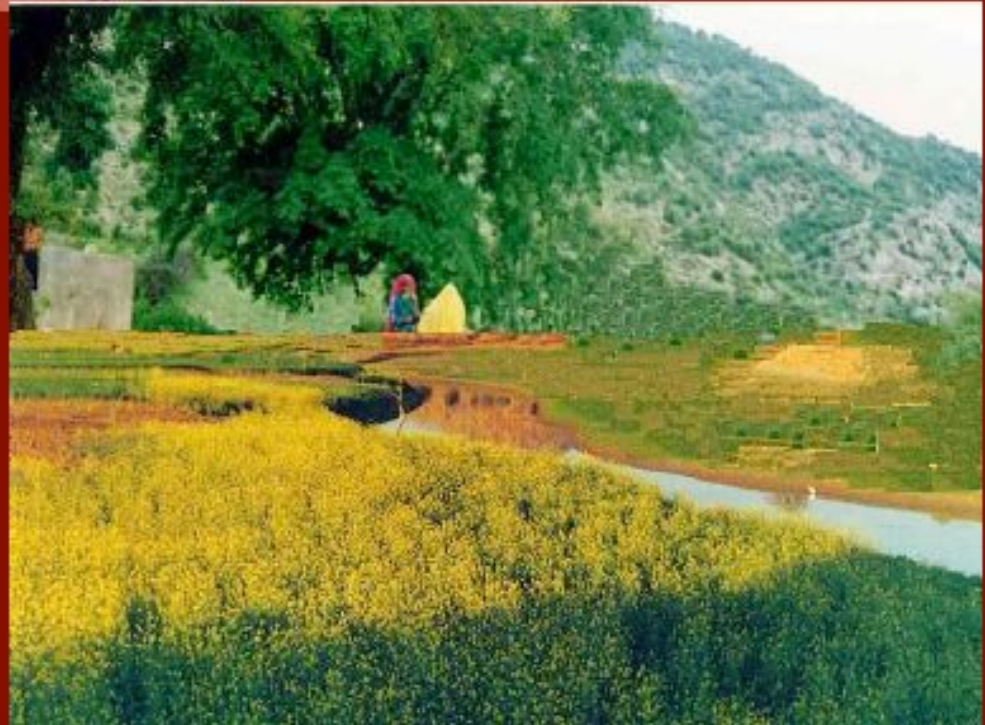
## River is flowing:





The river in 1985

The river in 2000



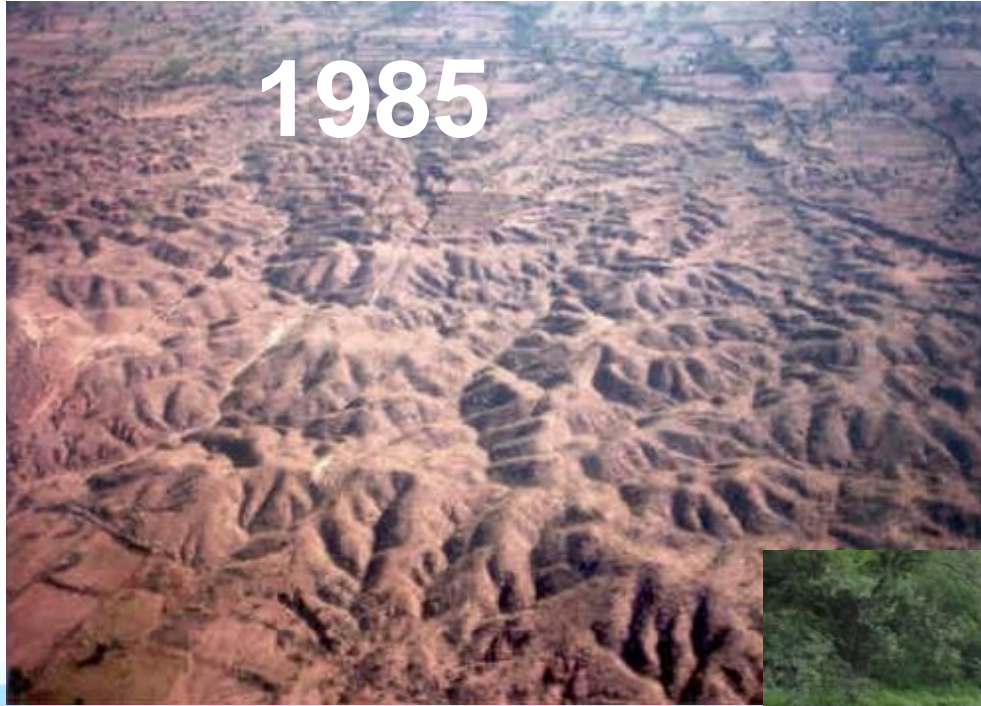






## THE SITUATION IN

1985



2012





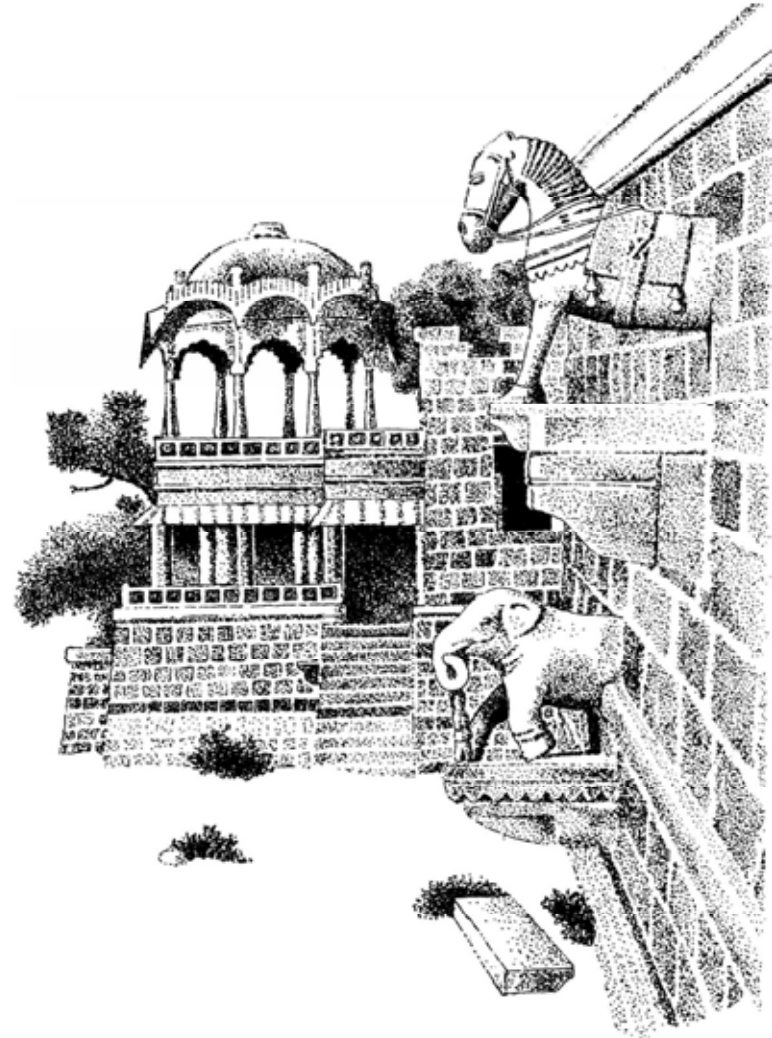
# *Traditional*

## 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





## 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.

BLUE *brought* HAPPINESS



....That  
is how

BLUE

brought

CHANGE

# Processes for flow revival





# Water interventions and bodies revived & built by the Villagers – over 10,000 such structures to date



**In these civil water harvesting movements, there is the creation of a deeper understanding that restoration of flow is required for all life to maintain the balance between man and nature. Without this flow and balance, all life will eventually die.**

Thank you...