Success Stories in WDP in Gujarat

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New Delhi, 2-3, Feb, 2011

Gujarat State Watershed Management Agency(GSWMA)

Scheme of Presentation

- Gujarat Perspective
- Gandhigram – Kutch
- Semla- Rajkot
- Learning from Gujarat

Importance of WDP for Gujarat

- About 70% of sown area is rain-fed
- Rainfall is highly erratic
- Nearly 20% of 19 districts is considered drought prone
- Kutch and Saurashtra regions are perennially dry
- Gujarat faces several types of land (soil) degradation

Rainfall Pattern: Gujarat

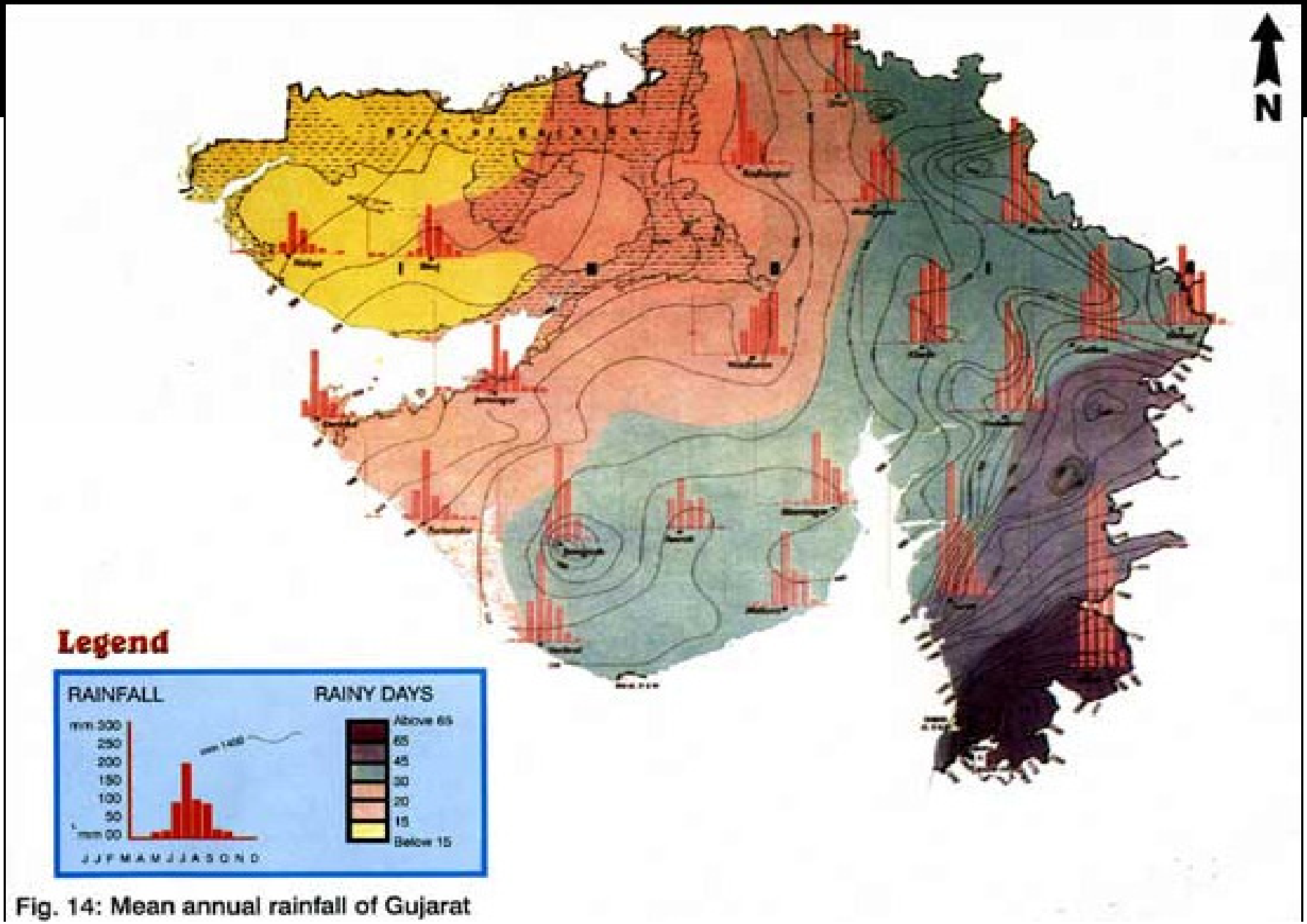
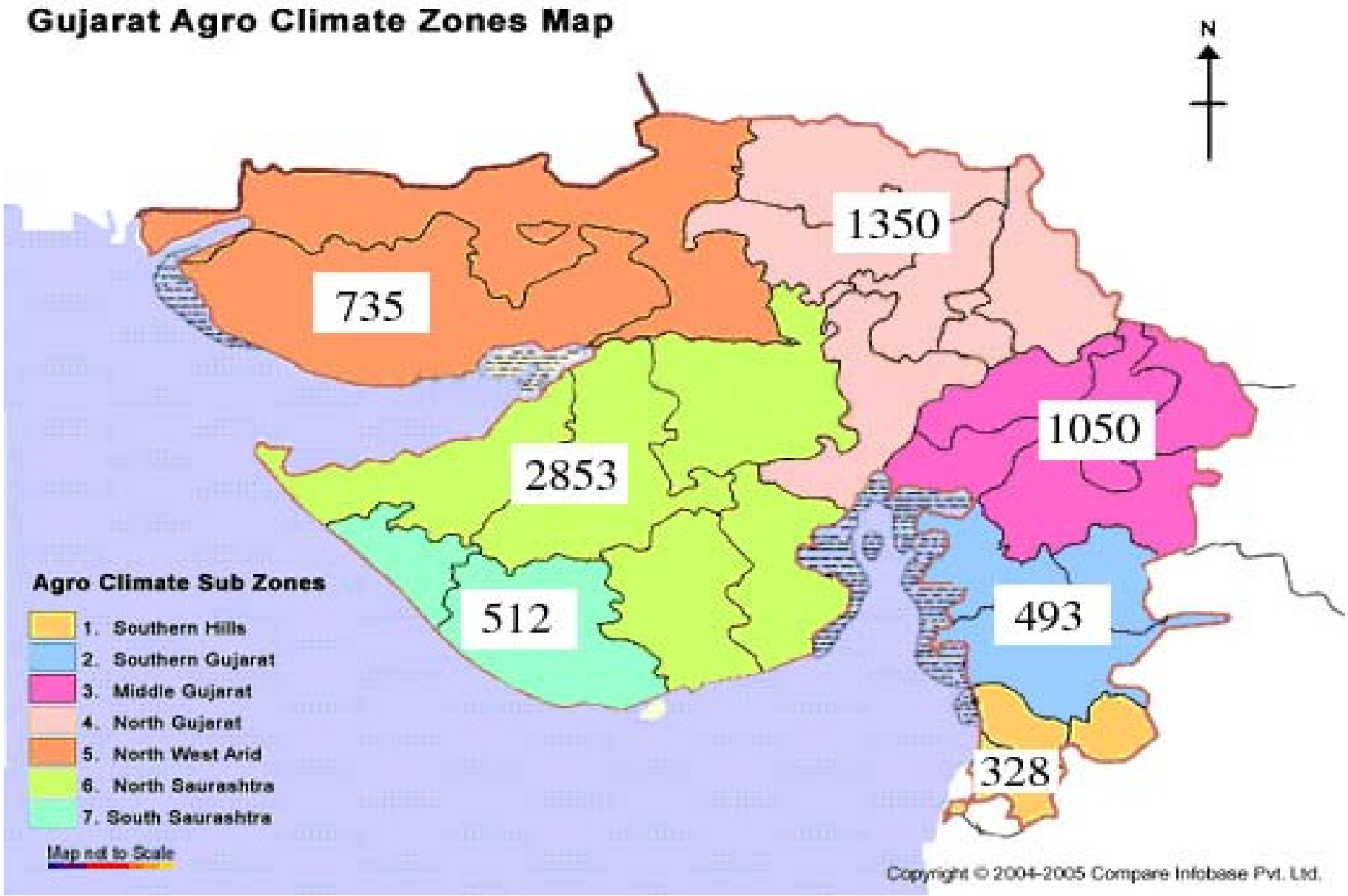


Fig. 14: Mean annual rainfall of Gujarat

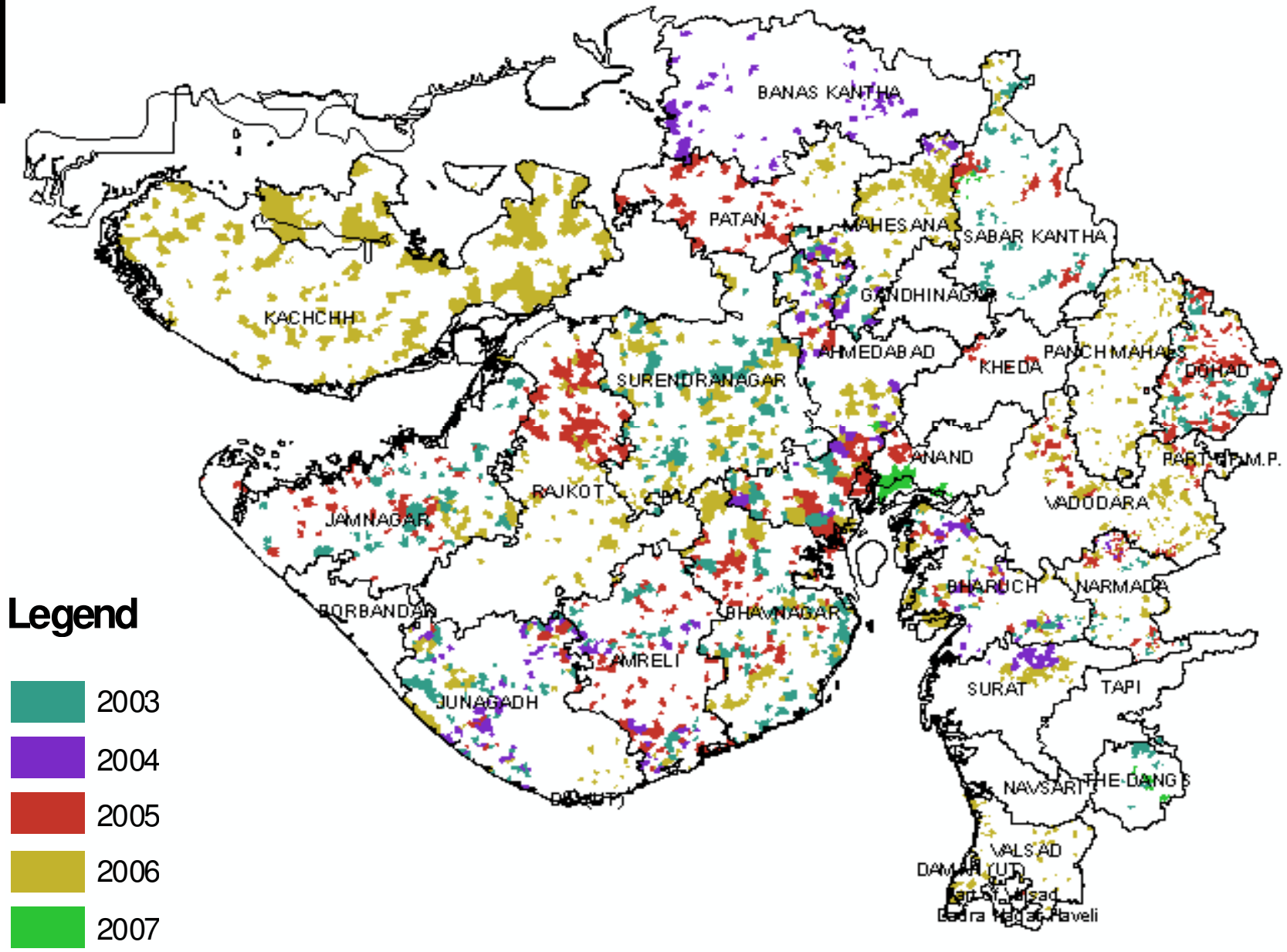
WDPs in Gujarat: Pre-Hariyali, Hariyali

Fund source	Scheme	No. of projects 8163	Area covered Ha-46 lakhs
MoRD	DPAP	2468	1234000
	DDP	3062	1531000
	IWDP	1047	523500
	EAS	546	273000
	SW	198	99000
	Total MoRD	7321	3660500
MoA	NWDPRA	741	674669
	RAS	60	153593.64
	RVP	6	39313
	Total MoA	807	867575.64
NABARD	WDF	28	29868.33
	IGWDP	7	8159.21
	Total NABARD	35	38027.54

Geographical Distribution of projects in Gujarat



WORKS CARRIED OUT IN WATERSHEDS UNDER HARYALI



Interventions undertaken under various programmes

Upto March 2010

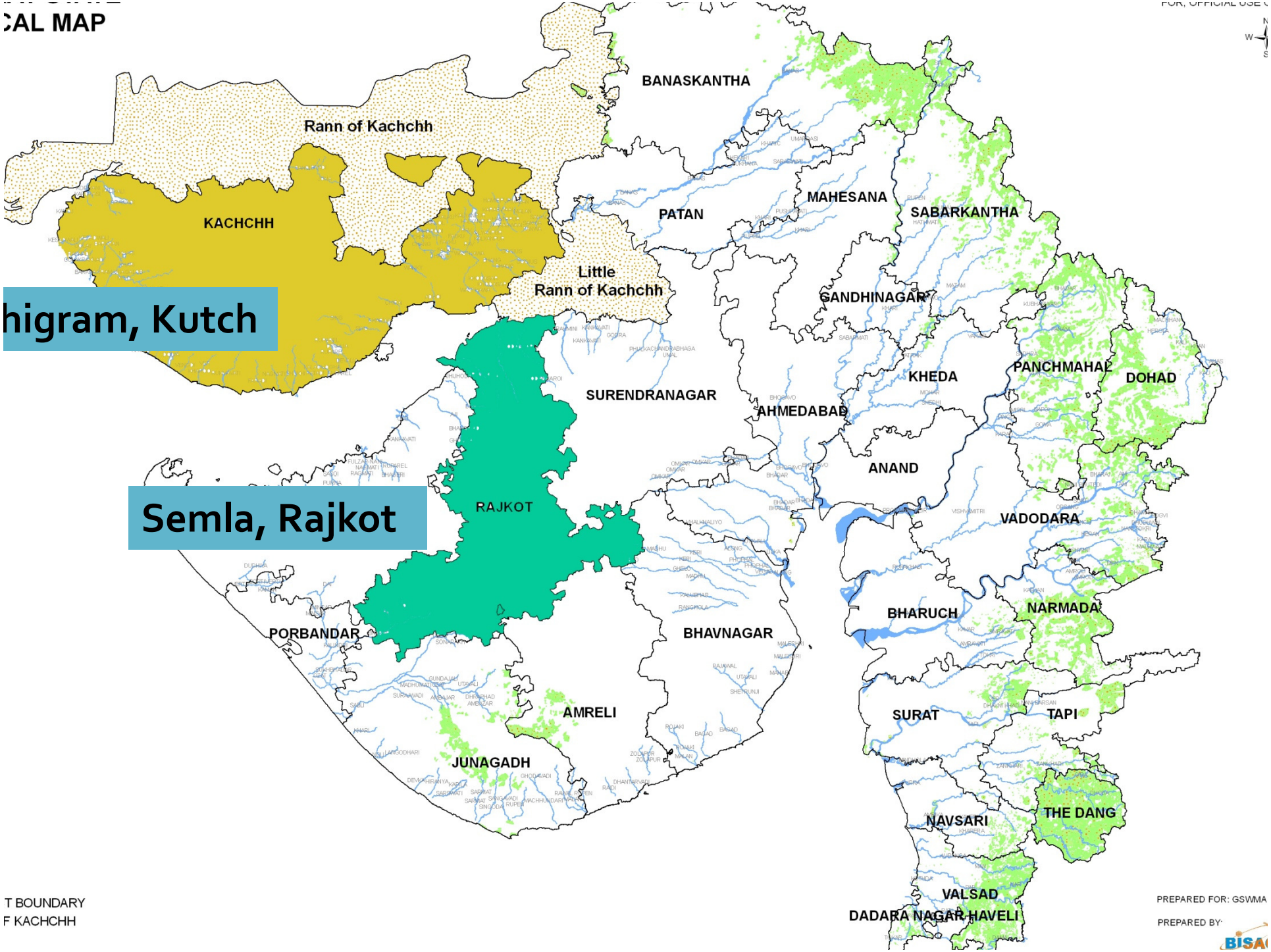
Sr No.	Works	Total Number
1	Checkdams	35414
2	Boribandhs	136121
3	Farm ponds	181123
4	Percolation tanks	3709
5	Nalla plugs	49941
6	Vermi compost units	10260
7	Drip irrigation systems	1638
8	Plantation in Ha.	94182

Total Investment – Rs. 1310.00 Crores

Success Stories

Some of the well-known cases in Gujarat

- Rajsamadhiyala, Rajkot district- BAIF (GRISERV)
- Mokasar, Chotila, Surendranagar- AKRSP(I)
- Vankaner, Rajkot- Sarvoday Seva Sangh
- Meghraj, Sabarkantha- Development Support Centre (DSC)
- Mespar, Rajkot- Vruksh Prem Seva Trust


CAL MAP
BANASKANTHA
Rann of Kachchh
KACHCHH
PATAN
MAHESANA
SABARKANTHA
Little
Rann of Kachchh
GANDHINAGAR
higram, Kutch
KHEDA
PANCHMAHAL
DOHAD
SURENDRANAGAR
AHMEDABAD
ANAND
Semla, Rajkot
RAJKOT
VADODARA
BHARUCH
NARMADA
PORBANDAR
BHAVNAGAR
AMRELI
SURAT
TAPI
JUNAGADH
THE DANG
NAVSARI
VALSAD
DADARA NAGAR HAVELI
T BOUNDARY
F KACHCHH
PREPARED FOR: GSWMA
PREPARED BY:

Semla watershed project

A Brief Overview

- Watershed codes :5G1B8c1a, 5G1B8c1b
- Taluka : Gondal
- District : Rajkot
- Total Geo. Area : 932.8Ha
- Project area : 500 Ha
- Program / Scheme : DDP; 2004-05
- PIA : Village Panchayat
- Population : 1498
- Average rainfall : 593mm
- Soil: : Shallow to medium deep cotton soil
- Average slope : 1-2%

Pre-Project Scenario

- Depleting water table
- Reduction of green cover
- Lack of water storage facilities
- Subsistence agriculture
- Absence of cash crops due to lack of irrigation even though climate supports
- Low cropping intensity and mono-cropping

Intervention

S.no	Type of work Quantum of work (in different units)	
1	Masonry Water harvesting structures(Check dams)	19
2	Cause way cum Checkdam	2
3	Village Garden	1
4	Bori bandh	2
5	Fodder Kits	15
6	Agro-Forestry/Horticulture plantation – No. of beneficiaries	35
7	Kitchen garden Kits – No. of beneficiaries	50
8	Vermi wash – No. of beneficiaries	2
9	Organic/Composting material– No. of beneficiaries	20

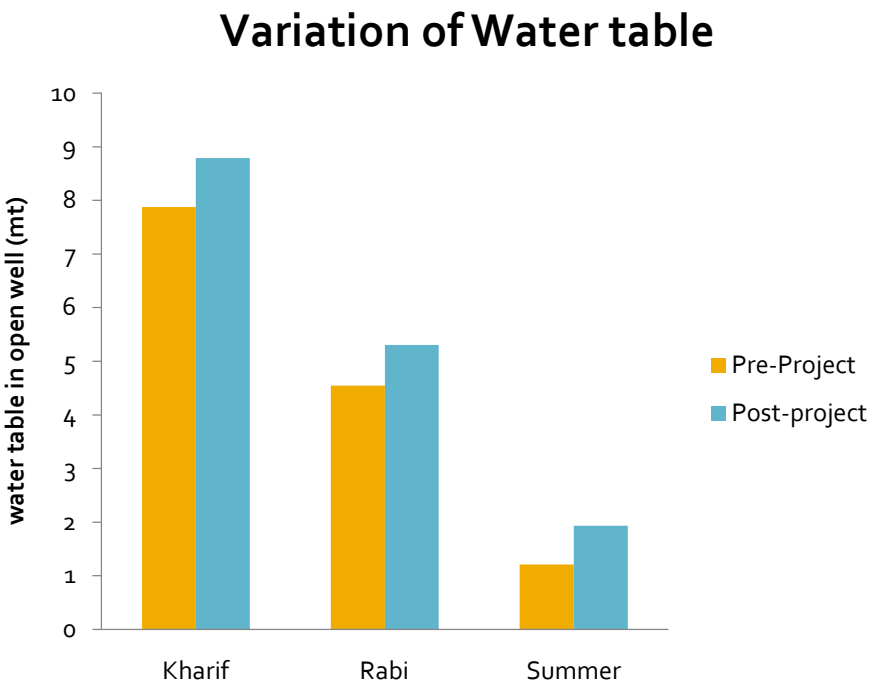
Check dam

A plantation site in the village

Outcome/Impact

- Increase in water table and irrigation
- Increase in crop productivity: cotton-27%, groundnut-36%, green fodder-29%
- Change in cropping pattern: jowar, maize, sesame to groundnut and cotton.
- Fodder availability in all seasons made dairy activity possible and has become a source of additional income.
- Genabhai Parmar took 2nd crop(wheat) for first time in his life in 2004, which he thought impossible before watershed intervention and by 2006 April he was growing vegetable and fodder as 3rd crop.
- Nirubhai Jadeja brought more land under cultivation from 2.4 ha to 3.2 ha in kharif and 0.5 ha to 2 ha in rabi.

Rise in water levels in wells



Upad Bhai Viradia in his Cotton field near Check dam

Gena bhai Parmar in his Cotton field

Gandhigram watershed project:
A Brief Overview

- District : Kutch
- Population : 400
- Total Geo. Area : 742.8 Ha
- Project area : 450 Ha (Twice)
- Funding Agency : GoI- DRDA
- Scheme : DDP; 1995-96
- PIA: Vivekananda Research and Training Institute (VRTI)
- Project Cost : 45 lakhs
- Average rainfall : 474 mm

Pre-project scenario

- Salinity ingress because of the vicinity to coast.
- Irrigation water was unfit for cultivation due to high salt content.
- Degradation in quality of land due to continuous irrigation with ground water.
- Acute shortage of potable water.
- Declining crop productivity
- Limited livelihood activities leading to migration.

Need Based Intervention

S. No	Particulars	Numbers
1	Check Dam	2
2	Storage Tank	1
3	Nala Plug	4
4	Renovation of percolation tank	1
5	Pond deepening	2
6	Land levelling	6 ha

A check dam in the village

An open well full of water which was laying unutilized

A big village pond supporting irrigation

A plantation site near the village

Outcome/Impact

- Irrigation is possible with conserved surface water.
- Two-fold Increase in yields with improved quality.
- More employment in agriculture and migration minimized.
- Availability of clean drinking water with almost neutral pH of 7·5
- Cropping in both the seasons and area brought under irrigation

	Ha of land under irrgation	
Seasons	Previous	After
Kharif	15	320
Rabi	0	140

- Shifting to cash crops from basic food crops.

Social Change

- Formulation of by-laws for water usage.
- Contribution up to 12 lakhs for construction of check dam of worth 27 lakhs.
- Water usage charges @Rs.100/ ha .
- New techniques such as "*Drip Irrigation"* is adapted

Learning from Gujarat

- Participatory projects have succeeded
- Focus on water conservation
- Land based interventions have been ignored
- Need for scientific planning
- Dry land agriculture promotion
- Focus on fodder production and animal husbandry
- Developing linkages
- Long term planning??? How??? (Institutional facilitation?)

Thanks!