

Success Stories of Watershed Projects under WDF

**PRESENTATION DURING WORKSHOP ON
SUCCESS STORIES IN WATERSHED
MANAGEMENT AT NEW DELHI- 02 & 03
February 2011**

NABARD, MUMBAI

PARTICIPATORY WATERSHED DEVELOPMENT PROGRAMME



. . . . Effective tool for sustainable natural resource management and livelihood opportunities in rainfed areas

Implementation Mechanism

- Selection of NGOs & their capacity building
- Invitation by villagers – mandatory shramadan
- Selection of watersheds
- Grama-sabha on convincing about participatory watershed forms Village Watershed Committee (VWC)
- Implementation by VWC and facilitated by NGO
- **Stages in watershed:**
 - Capacity Building Phase- pilots of 100 ha
 - Feasibility Study Report
 - Full Implementation Phase

Key Features Evolved By NABARD

- Net planning- plot wise with farmers' family
- Voluntary labour contribution - Shramdhan
- Women empowerment & Livelihood support
- Encourages flexibility & innovation
- Project cost to Village Committee and Management cost to NGO
- Close monitoring throughout the project period

Physical and Financial Parameters

(as on 31 Dec.2010)

.crore

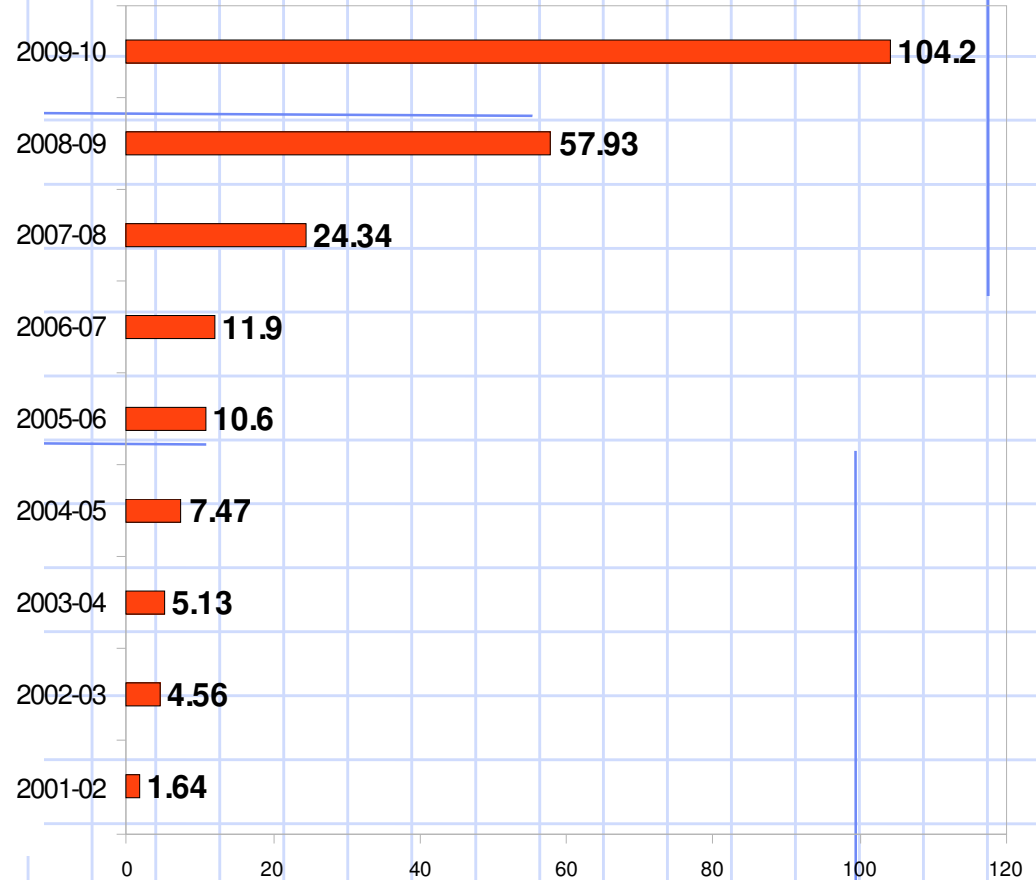
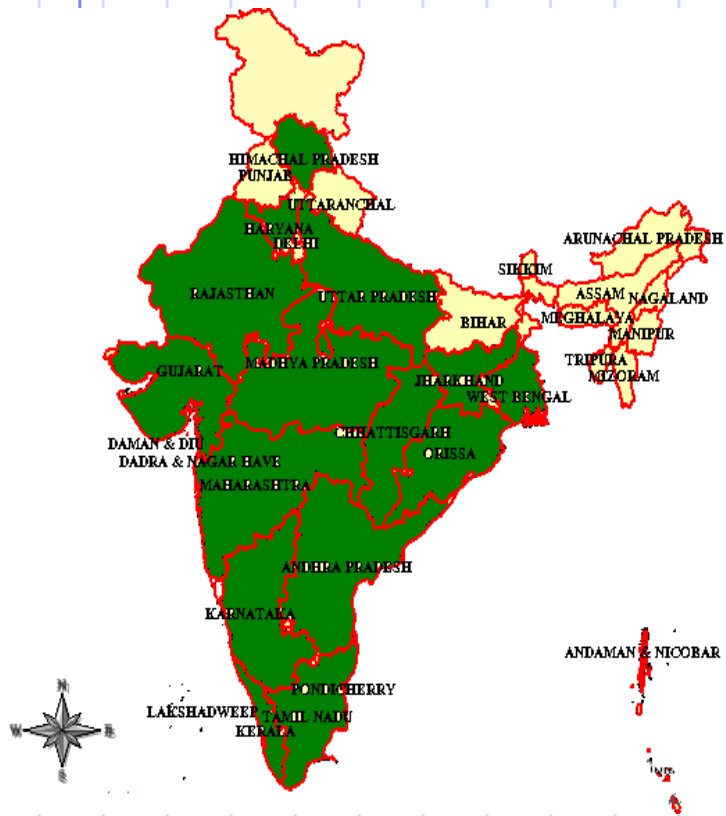
Programme	No of Projects	Area (m.ha)	Fund Committed	Cumulative release	%
IGWDP	211	0.21	266.57	106.46	40
PM's package	775	0.93	1023.00	191.21	19
WDF- Grant	181	0.14	76.04	42.99	57
WDF- Loan	344	0.35	132.44	54.21	41
IWDP	79	0.08	60.00	23.95	40
KDPP	10	0.01	3.55	2.90	82
Total	1600	1.72	1561.60	421.72	27

WDF Corpus

WDF Started in 2000-01 with a corpus of Rs.200.00 crore contributed equally by GoI and NABARD

- Projects under WDF are being implemented in 16 States
- In all, 1284 projects covering an area of about 1.42 million ha under implementation
- An amount of Rs.869.97 crore credited to WDF by way of RIDF interest differential.
- Total amount committed : Rs.1,386 crore

WATERSHED PROJECTS – States Covered & Disbursement

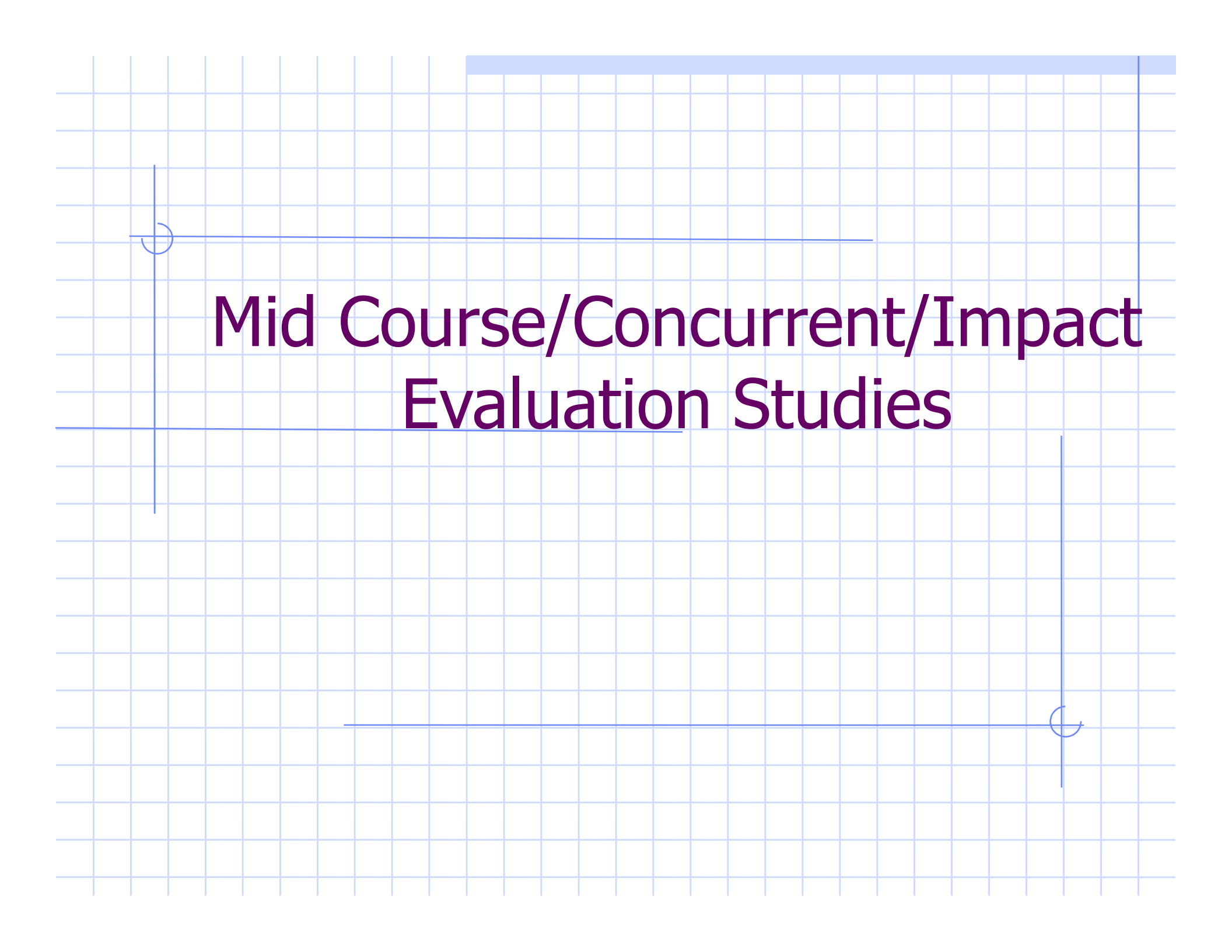


Disbursement (Rs. cr)



Overall Impact of Watershed Development (based on watersheds in 1.96 lakh ha which are over 5 yrs old)

- Rise in ground water level by 2 to 3 Meters
- Drinking water scarcity in villages has been overcome
- Local employment generation has improved, reducing off season migration
- Increase in agri. productivity and production - maize (28%), jowar/bajra(50%), ground nut (18%), pulses (36 - 42%)
- Dairy activity has received a fillip
- Demand for credit has gone up (est. potential - Rs.6,420 crore)
- Women empowerment and reduction in drudgery; large no. of women SHGs formed and credit linked (about 12840 SHGs)



Mid Course/Concurrent/Impact Evaluation Studies

Mid Course Evaluation Study of Chaitanya, Mabbugutta, GB Thanda, Gramajyoti watersheds in AP by CRIDA in June 2009 - Watershed Profile

Watershed	Area (ha)	No. of Families	Cost (Rs. Lakh)	Impl. Period
Chaitanya	1248	463	53.36	2005 onwards
Mabbugutta	924	363	47.93	-do-
GB Thanda	924	726	48.79	-do-
Gramajyoti	1372	650	71.55	-do-

Chaitanya, Mabbugutta, GB Thanda, Gramajyoti Watersheds in AP by CRIDA – Major Findings

Chaitanya watershed, Medak District

- **Significant yield increase for Jowar (33%), Black gram (32%) & Greengram (24%)**
- **Average water level increased by 2.0 m**

Mabbagutta watershed, Warangal Dist.

- **70 Acres of fallow/cultivable wastelands brought under cultivation**
- **Productivity increase in Green gram (36%) & red gram (42%) during Kharif; Bengal gram (45%) & Ground nut (18%) during rabi**

GB Thanda watershed, Warangal Dist

Milch animal population increased from nil to 294 –Area under horticulture increased from 2.50 to 16 ha

Gramajyoti watershed, Medak Dist.

- **Rabi cropped area increased from 136 ha to 404 ha (197%)**



Crop diversification- Commercial crops (chillies, brinjal, etc.)



Land use diversification & extensive use of sprinklers - Gramajyoti

Mid Course Evaluation Study by AFPRO in 2009 – Profile of Ongoing Projects in Andhra Pradesh

Watershed	Area (ha)	No. of Families	Cost (Rs. Lakh)	Impl. Period
Teliki	872	137	57.23	2006 onwards
Nethigutlapalli	953	284	57.24	-do-
Kothapalli	725	208	44.72	2005 onwards
Kosubaripalli	1382	428	76.58	

Teliki, Nethigutlapalli, Kothapalli, Kosuvaripalli watersheds in AP - Major findings

- Area under sweet orange has increased from 20 to 58 acre (Teliki).
- Reduction in distress migration from the area due to improved agricultural production and farm productivity (14 farmers earlier migrated to cities returned to villages in Teliki watershed)
- Milk production increased by more than 50% in Nethigutlapalli watershed & 27% in Kothapalli.
- Increase in Agriculture income – 19% in Teliki; 101% in Nethigutlapalli & 95% in Kosuvaripalli watersheds.



A well established mango orchard in Kothapalli
Date – 1/4/2009



A well constructed Stonebunding in Teliki –
2/5/2009



A well constructed earthen dam in
Badiselvanka village under CBP –
Date: 1/4/2009



Water storage seen in the renovated storage
pond – 3/5/2009

Impact Evaluation Study of Watersheds in Uttar Pradesh by Dhan Foundation in March 2010 – Watershed Profile

Watershed	Area (ha)	No. of Families	Cost (Rs. Lakh)	Impl. Period
Chipni- Bandhoni	689	256	42.1	2004-09
Lodhwara	795	228	37.35	2004-09

Impact Evaluation Study of Watersheds in Uttar Pradesh by Dhan Foundation in March 2010 - Major Findings

- Ground water levels in both the watersheds raised between 12 to 18 feet during monsoon season compared to pre-development works.
- Wheat area in Chipni-Bandhoni increased by 75 ha and 8.5 ha area was brought under vegetable cultivation.
- About 25 ha single cropped area was converted into double cropped area and 6 ha area was brought under vegetable and pulses cultivation in Lodhwara watershed.
- Yield from millets like bajra/jowar and pulses increased from 1.2 to 1.8 tonnes/ha in Chipni-Bandhoni (50%) . Paddy yield showed increase from 3.0 to 4.3 tonnes/ ha in Lodhwara(43%)
- Cross bred population of dairy animal increased from 12 to 37 (200%) in Chipni-Bandhoni whereas in case of Lodhwara watershed the corresponding increase was from 21 to 57 (170%)



Mr. Avdesh Singh, Chhipni Village, farm income increased from Rs.30000/- to 50000/- from 7.5 bigha of land due to crop diversification – mainly vegetable cultivation



Moongdhal



Brinjal

Rabi vegetable and pulses production on residual moisture due to SMC works created additional income opportunities



Agro-horticulture

Cultivable waste land brought under Agro-horticulture production

Mid Course Evaluation of On-going Thimmapur and Fazulgagar Watersheds in Andhra Pradesh by CRIDA in May 2010

Watershed Profile:

Watershed	Area (ha)	No. of Families	Cost (Rs. Lakh)	Impl. Period
Thimmapur	1661	384	70.46	2006 onwards
Fazulgagar	932	485	42.69	2006 onwards

- **Thimmapur watershed**
 - Cropping intensity increased by 10 %
 - Average water table increased by 25 %
 - Maize productivity increased from 35 to 45 q /ha (28% increase)
- **Fazulgagar watershed**
 - 122 ha of culturable waste land brought under cultivation
 - Maize productivity increased from 18 to 33 q / ha. (83% increase)
 - Cropping intensity increased from 106 to 121 %



CCT across the slope in ridge region



Mango plantation

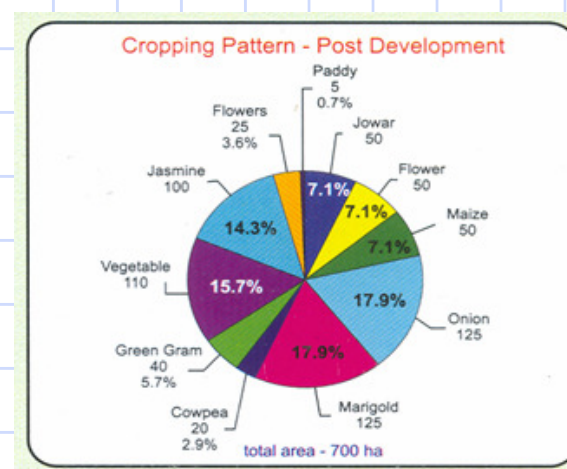
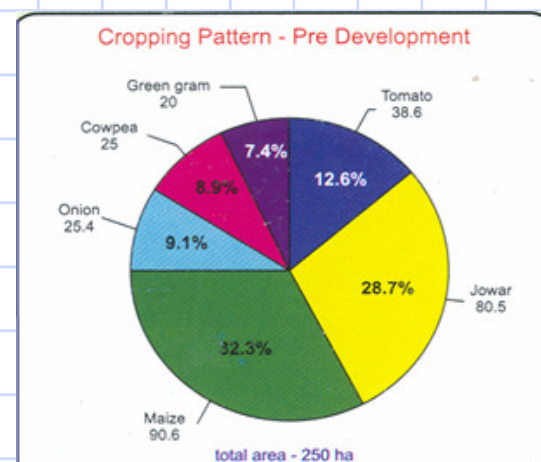


Top-view of Rock-fill Dam

Musavanuthu Watershed in Dindigul Dist. Tamil Nadu - Concurrent Evaluation

Watershed Profile: Area 1258 ha, 717 families, cost - Rs. 67.52.46 lakh, Implementation period - 2004 to 2009.

- Gross cropped area increased from 250 ha to 700 ha (300 ha under flower cultivation) – 180% increase
- Cross Bred cow population increased from 240 to 367 (53% increase)
- Reduction in the migration – average six months of employment for landless



Continuous contour Trench



Gunj Babalad Nala watershed, Gulabarga Dist. – Karnataka

Concurrent Evaluation Study

- ◆ Ground water level increased by 3 to 5.5 m.
- ◆ Rejuvenation of 8 defunct dug wells.
- ◆ Rabi area increased by 78.85 ha.
- ◆ Area under pulses shown substantial increase (72.33 ha to 174 ha – rabi green gram)
- ◆ The highest increase in the yield was recorded in respect of bengal gram (118 %), followed by green / black gram (80 % each) and red gram (71 %)
- ◆ CB cow population increased to 183 from 9.
- ◆ All the farmers covered under KCC

Gunj Babalad Nala Watershed

Pictures from Gunj Babalad Nala Watershed Project, Gulbarga



Pebble bunds help in soil conservation



Soil deposited near a boulder waste weir



Gully plug in Gunj Babalad Village

Pictures from Gunj Babalad Nala Watershed Project, Gulbarga



Farm Pond in village Narona



Silk worm rearing – Gunj Babalad Nala Watershed



Improved variety Tur demonstration plot in B Sangolagi village.



Silk worm rearing house constructed using locally available material



Silk worm rearing supported under livelihood support

Thummanahalli watershed, Chikkaballapur Dist. – Karnataka Concurrent Evaluation Study

- ◆ An area of 136.7 ha of fallow and uncultivable waste land brought under dryland horticulture crops like cashew and mango.
- ◆ Area under mango increased to 348 ha from 200 ha ; cashew to 182 ha from 50 ha; and forestry species to 158 ha from 58 ha. A total of 15094 man-days of employment generated due to the project.
- ◆ Federation of 9 SHGs have been formed in the watershed
- ◆ Income Generation Activities such as dairy animal (44 nos.), sheep (107 nos.), goat (33 nos.), chandrika for raising silk worms (50 nos.) were taken up by SHGs out of RFA.



Developed Area after 4 year



Full Grown 4 yrs old Cashew Plan

**Thummanahalli watershed,
Chikkaballapur Dist. –
Karnataka**



AH as income generation activities

Watershed : Future Strategy

- **Move towards holistic NRM approach by incorporating agronomic interventions, agriculture productivity enhancement, water resources management and livelihood interventions for sustainable development**
- **Move towards credit based development in the post watershed phase involving RRBs/ PACS/CBs**
- **Exploring involvement of subsidiaries of NABARD viz. ABFL/ADFT/ NABFINS for credit deployment.**
- **Use of technologies like IT, GIS, GPS for planning, monitoring and impact assessment**
- **Completion of watershed projects without time over run through adoption of techniques / methods such as "*Kaizen*
Lean *Sigma*"**

Issues

- Convergence with MGNREGS
- Convergence of programmes of GOI/ State Govt. like micro irrigation, farm pond, NHM, etc., in watersheds
- Problem in getting NOC from SLNA – Jharkhand, Uttarkhand
- Reservation of priority watersheds for Govt programmes up to XIV plan period
- Role of CBOs in the Post Watershed Phase
- Use of Maintenance Fund



Vermicompost



Hybrid Napier - Kasireddypal

Devarampally Watershed in AP



Vegetable cultivation

Laxmipur in AP



Tomato nursery in tray method



Vegetable - Ramachandraguden



SRI Paddy- Gurrallagondi



Increase in Ground Water thr' watershed activities



Sakeda, Settihadapanoor and Kohinoor



Sakeda, Settihadapanoor and Kohinoor



Seed Bank -Settihadnpur



Nursery Raising by SHGs



Pisciculture by Tribals- Kohinoor watershed



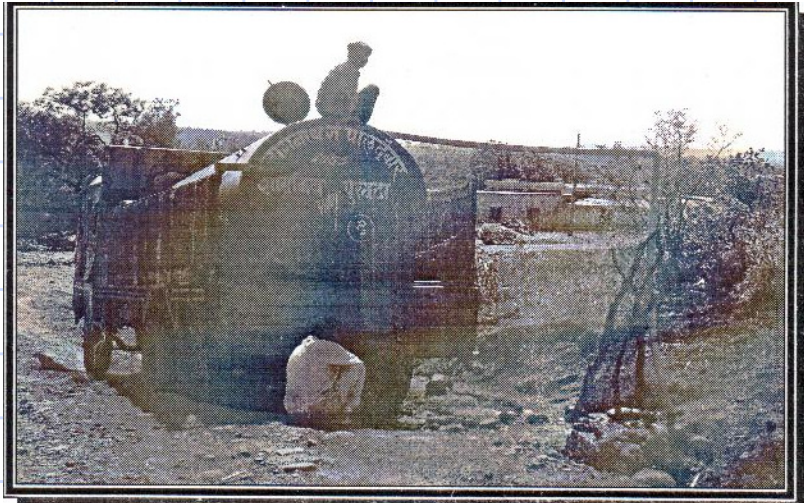
Sirohi goat - Devpura



Sustaining Commons- Baverikheda



Case Studies in Rajasthan



Bamani made Tanker Free



Demo of Turmeric Pasodi, IGWDP



Demo of Ginger, Pasodi, IGWDP

Watersheds in Maharashtra

The image features a light blue grid background. At the top, there is a solid blue horizontal bar. On the left side, there is a blue corner graphic consisting of a vertical line, a horizontal line, and a small circle at their intersection. The text "Thank You" is centered in a bold, purple font.

Thank You