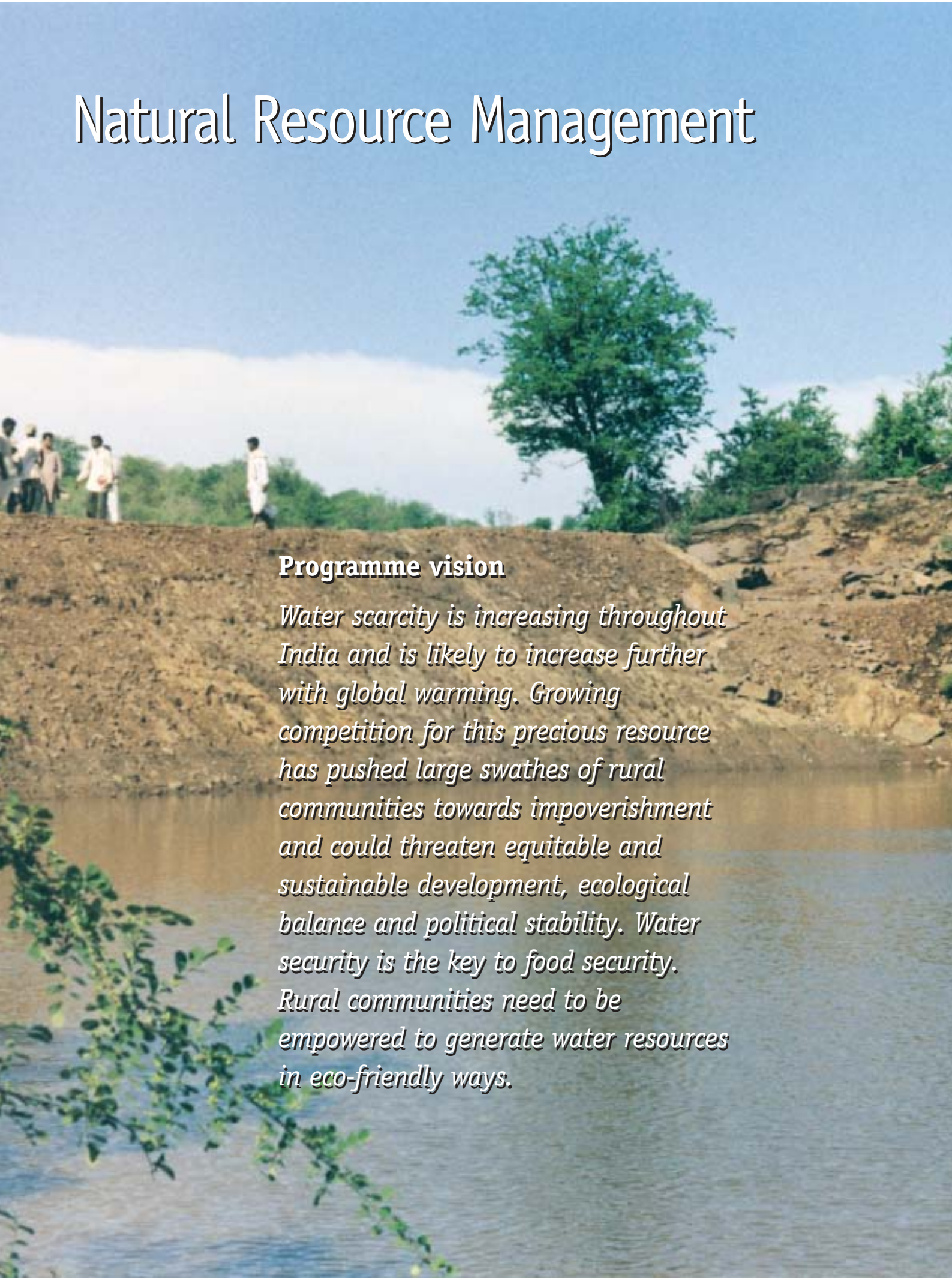
Natural Resource Management



Programme vision

Water scarcity is increasing throughout India and is likely to increase further with global warming. Growing competition for this precious resource has pushed large swathes of rural communities towards impoverishment and could threaten equitable and sustainable development, ecological balance and political stability. Water security is the key to food security. Rural communities need to be empowered to generate water resources in eco-friendly ways.

CHAPTER 3

HIGHLIGHTS 2006 – 2007

RAJASTHAN

- 26 water-harvesting structures completed, work in progress at seven others.

Jamwa Ramgarh

Project on 'Strengthening Local Governance of Natural Resources' commenced in three panchayats of Jamwa Ramgarh block, Jaipur district

- Two Cattle Development Centres established to serve the 28 villages of Jamwa Ramgarh block.
- 41 women SHGs formed and members trained.
- 139 members of 17 Jal Samitis were trained in collective decision making for management of local natural resources and effective record-keeping.

KARNATAKA

Watershed project in three villages of Aurad taluka, Bidar district in partnership with a local NGO OUTREACH completed

- 2000 hectares treated
- Water availability increased through ground water recharge from earlier 6 months to 10 months
- Agricultural productivity of Sorghum increased by 30 per cent
- The targeted small and marginal farmers' food security enhanced
- Rs.1.38 lakhs has been mobilized from the communities towards post-project maintenance fund (Watershed Maintenance Fund)

Natural Resource Management

Water is a prime natural resource, a basic human need and precious national asset. It is a vital component of our ecosystem and has to be conserved for sustaining all forms of life.

Rapid industrialization and urbanization coupled with decline in per capita water availability is putting a lot of pressure on the available water resources of the country. The increasing gap between water availability and demand in both urban and rural India highlights the need to conserve, utilize and manage this important resource in a sustainable manner.

Rainwater harvesting must be one of the key elements in responding to the growing water challenge. For India it has special relevance, as its weather and terrain are such that most rainwater runs off and gets lost as flash floods. About 50 per cent of the total rainfall is received in about 15 days and in less than 100 hours in a year. Capturing this rainwater and recharging rapidly depleting groundwater aquifers is vital to mitigate water stress and enhance rural livelihoods.

THE GREEN CORPS

It was with these objectives that RGF initiated its 'Green Corps' programme, a corps of rural volunteers dedicated to promoting rainwater harvesting in vulnerable areas of rural India. A group of rural youths was identified and capacitated in various aspects of water conservation and management and given the task of spreading awareness of the benefits of water harvesting and mobilizing community support and participation for it. During the last six years RGF has capacitated 71 volunteers to work energetically on water conservation in Rajasthan and Karnataka.

The objectives of the Green Corps are to:

- Assert the people's right to water.
- Spread awareness in rural areas of the benefits of water harvesting.
- Mobilize community support and community participation.
- Strengthen existing networks of water harvesters.
- Work towards poverty alleviation and

Bandre Ki Pokhar, Village Shayampura, Distt. Karoli. Cost Rs. 77,157

better health through environmental regeneration.

- Improve gender equity through participation of women as stake-holders.
- Promote volunteerism in the development sector, initially focused on water.

The Green Corps has spearheaded the construction of 208 water-harvesting structures in 115 villages with the active participation and support of the community. Each village community was involved throughout in the planning, implementation and monitoring of the programme. A noteworthy feature was securing a minimum contribution of 33 per cent (and in some cases more) from the community towards the cost of each structure, with RGF providing the balance.

The interventions in Rajasthan have primarily been in three geographical divisions namely Pali, Karoli and Dausa.

Karoli Division

Karoli is one of the most remote and backward districts of Rajasthan, with an undulating hilly terrain, degraded forests and low rainfall. Livestock rearing and subsistence agriculture are the main sources of livelihood. The area faces severe water scarcity during summer, resulting in substantial migration.

RGF began its interventions in 2002 in Sapotara and Mandarayal, two of the most vulnerable blocks of Karoli district. In 2006-07, 12 new water-harvesting structures were built in 9 villages at a total cost of Rs.14,60,573 to which the community contributed Rs. 5,56,838 (38 per cent). Altogether, RGF has supported the construction of 44 water-harvesting structures in 31 villages since 2002. The total cost involved is Rs. 59,02,207 including the community contribution.

This has created a visible impact on the lives of the people through enhanced water availability, increase in agricultural production and better awareness about water conservation and its management. (See Table 1)

Kalua Wali Pokhar. Village Teen Pokhar. Distt. Karoli. Cost Rs. 1,57,326

Planning meeting with Karoli team

Table 1
Water harvesting works during 2006-2007 in Karoli division

Village	Status	Benefits				
		No. of wells	Land (in Bigha)	No. of Families	Population	No. of cattle
Amreki	Completed	2	20	8	40	90
Albatki (3)	Completed	—	83	17	155	245
Ghasimgpura	Completed	2	08	3	30	50
Bahadurpur	Completed	4	22	5	70	200
Teen Pokhar	Completed	2	25	5	55	200
Rahir	Completed	3	45	10	100	200
Shyampura	Completed	2	20	4	50	100
Dhandhurat	Completed	4	21	9	55	150
Rajpur	Completed	2	15	6	60	100
Kot	Completed	—	15	10	90	400
Teen Pokhar	Ongoing	—		80	700	1500
Total		**21**	**274**	**157**	**1395**	**3235**

Top: Irrigation outlet in Rajoli Wali Pokhar, Village Rajpur, Distt. Karoli. Cost Rs. 1,69,036
Above: Irrigated fields down-stream of earthen dam in village Daulatpura, Distt. Karoli. Cost Rs. 1,33,167

Top: Aai Mata Talab, Village Chokadiya, Distt. Pali. Cost Rs. 1,63,359
Above: Bhadari Mamaji, Village Guda Soor Singh, Distt. Pali. Cost Rs. 1,02,265

Kissan Sammelan

To spread the message further, a Kisan Sammelan was organized in the remote and inaccessible villages of the Dang area. Its purpose was to share experience of water conservation in the area as well as to honour those energetic people who had done excellent work. Around 350 farmers belonging to 30 different villages participated. All shared their views not only regarding the importance of water-harvesting but also on conserving the other natural resources of the area. Since most of the area is covered by degraded forest, people willingly stepped forward to work on sensitizing the community in their respective villages towards conservation and regeneration of natural resources. The outcome of the Sammelan was very encouraging; many of the participants invited RGF to work in their villages.

One of the main economic activities is livestock rearing. A major part of the household income comes from livestock, but the breeds are not very productive and the management practices are unsustainable. Another major problem is the non-availability of timely veterinary services. In partnership with BAIF, we are planning to open a Cattle Development Centre in the area next year, which will provide services like artificial insemination, vaccination, deworming etc. at their doorsteps.

Kissan Sammelan, Karoli

Pali Division

In the year 2006-07, 12 new water-harvesting structures were built in 11 villages at a total cost of Rs. 18,08,316 towards which the community contributed Rs. 6,20,341 (34 per cent). Work is in progress at 1 other site. (See Table 2)

In the last six years, RGF has successfully supported the construction of 41 water-harvesting structures in 31 villages at a total cost of Rs 83,58,606 including the community contribution.

Table 2
Water harvesting works during 2006-2007in Pali division

Village	Status	Benefits				
		No. of wells	Land (in Bigha)	No. of Families	Population	No. of cattle
Guda Padam Singh	Completed	15	290	125	645	1170
Dewer ka Odha	Completed	9	190	35	245	415
Bansore (3)	Completed	19	370	83	508	2430
Ashapura	Completed	7	180	28	160	1990
Jhambuda	Completed	10	195	35	265	350
Choukadiya	Completed	9	215	42	260	315
Nimbli	Completed	11	500	55	400	300
Bogla	Completed	5	105	30	180	500
Dhal	Completed	6	125	25	155	105
Gudasoor Singh	Completed	25	550	95	500	950
Choukadiya	Ongoing	10	145	20	154	385
Total		**126**	**2865**	**573**	**3472**	**8910**

RGF-GTZ project

RGF initiated a new project in 2006 with GTZ support titled " Strengthening Local Governance of Natural Resources' in the Jamwa Ramgarh block of Jaipur district.

The aim of the project is to strengthen the local institutions for better governance and sustainable management of natural resources on which rural livelihoods depend. The project recognizes the critical role of panchayats in this regard. Efforts were put in to build their capacities to deliver their mandated responsibilities and help them to mobilize public and private funds and services to manage their natural resources. The project is being implemented in 28 villages of Jamwa Ramgarh block, carrying forward RGF's 3-year water-harvesting programme in the area. The duration of the project is three years; it has completed one year of implementation. During the period much emphasis was laid on building the capacities of different stakeholders, establishing new principles and policies and reorganizing institutions.

Capacity Building

A variety of training programmes and exposure visits were conducted:

- Training of Jal Sabha/Jal Samiti members was organized on effective management, collective decision-making for the management of local natural resources, maintenance of records and fund management. During the year 139 Jal Samiti members were trained covering 17 Jal Samitis in 6 batches.
- Awareness generation camps were held in 16 villages to spread the message of improved local governance through strengthened institutions including Panchayats, importance of education especially of girls, social evils such as alcoholism and child marriages etc. This was a medium to expand our reach to a more diverse audience in the villages. The awareness program was done through puppet shows, street plays and folk songs which attracted more than 2000 villagers including children of all age groups.
- The Panchayat members received concentrated orientation and we succeeded in establishing a working rapport with them. This was not easy as the Panchayats have their own biases and problems. The initial results should aid our further capacity building plans for them in the coming year.
- The training of our Green Corps volunteers has been an ongoing activity. A two-day training program was organized for them on various issues like SHG management and perspective planning. A training-cum-exposure visit was also organized to Himachal Pradesh Eco-Development Society (HPEDS) based in Palampur, Himachal Pradesh. The training was on Panchayat Micro Planning and Impact Chain Monitoring.

Jal Samiti members participating in the training

Awareness generation programme at a village

Top: Hari Singh Talab, Village Bogla, Distt. Pali. Cost Rs. 1,55,192
Above: Uparla Odha Anicut, Village Dhal, Distt. Pali. Cost Rs. 1,12,111

Top: Onchal Naka, Village Ladwa Dhani, Basore, Distt. Pali. Cost Rs. 2,05,255
Above: Gochar Nandi, Village Basore, Distt. Pali. Cost Rs. 62,973

Top: Saleri Wali Pokhar, Village Dhanduret, Distt. Karoli. Cost Rs. 1,14,436
Above: Teeram Wala Anicut, Village Amreki, Distt. Karoli. Cost Rs. 1,22,904

Top: Children in Shayampur, Distt. Karoli
Above: Downstream flow, Onchal Naka Anicut, Basore, Distt. Pali

DEVELOPING PERSPECTIVE PLANS

A perspective planning exercise was initiated to help the villagers articulate their development needs, prioritize them and either seek assistance or generate resources to achieve them. The notice from the state government to prepare village development plans to incorporate in the upcoming 11th Five Year Plan provided the ideal opportunity to initiate the village planning exercise. The village plans were prepared through a process of in-depth interaction with the community and panchayat members. These village plans were assimilated into the Panchayats drafts and submitted to officials for the ensuing 11th Plan. Sectoral elaborations were carried out at the village level and submitted to the Panchayat by the respective village institutions. The major components of the perspective plans were then incorporated into the Panchayat annual development plan in March 2007.

Women's Self Help Group in a training exercise

FORMATION & CAPACITY BUILDING OF WOMEN SHGS

Till now 41 women SHGs have been formed covering 514 women of the project villages. The process of establishing bank linkages for these SHG groups continued and 13 SHGs opened their bank account. During the period a total of 64 SHG members were trained on various functional issues. An exposure was also organized to Kripaniwas, an NGO working in Alwar district, for in-depth interaction with other SHG members involved in income generation activities.

Self Help Group meeting

In order to further strengthen the women SHGs, the project has begun work in identifying viable micro-enterprises in the project area in association with the Rural Non-Farm Development Agency (RUDA). RUDA has agreed to provide the necessary services and skills development trainings to SHGs.

A new Cattle Development Centre opened at village Deveneecha

LIVESTOCK DEVELOPMENT

Livestock plays a very important role in the lives of the rural poor in this area and there is considerable potential for improvement. After field studies and interaction with the different

stakeholders, two cattle development centres were established by RGF in Devineecha (Raisar Panchayat) and Neemla (Neemla Panchayat) villages, in March 2007. Arrangements were finalized with BAIF to operate and manage these centres for at least five years in order to achieve the desired results. The centres will focus on breed improvement of the cattle and provide veterinary services. In the first month 17 cows and 14 buffaloes were inseminated benefiting 31 farmers of 11 villages.

WATER HARVESTING STRUCTURES

During the period 2 new water-harvesting structures were constructed and one was repaired. Work is in progress at 5 other sites. We were able to generate approximately 1600 person-days of work through soil and water conservation measures. The project also supported construction of 2600 running metres of farm bunds benefiting 25 farmers.

WATERSHED PROJECT BIDAR, KARNATAKA

RGF's watershed project started in 2003 in partnership with OUTREACH, a local NGO, in Aurad taluka of Bidar district. The total watershed area was of 2000 hectares covering three villages Munganal, Boral and Tuljapur. The project was innovative in many ways. It introduced for the first time in the area, new approaches like implementation by Green Corps volunteers, a high level of community participation both in monetary terms and in kind and establishing village institutions for long-term sustainability. The project was intended to be of 3 years duration but due to the initial difficulties of organizing the communities to accept these new approaches, the project was extended for six more months to help it to achieve its objectives. The project ended on 30th September 2006. At the end of the project a Participatory Impact Assessment study (PIA) has been conducted to trace the impact of the project. Although soil and moisture conservation measures require a long period of time to yield their full benefits, the study was useful in bringing out the impact trends.

Work in progress at Kadiyal Wala Anicut, Darolai. Cost Rs. 1,83,850

Neemdi Wala Anicut, Bassi. Cost Rs. 1,95,723

Small field pond for rain water collection, Bidar

Reaching the beneficiaries, Bidar

Improved pasture

Villagers participating in PIA study, Bidar

Villagers participating in PIA study, Bidar

Boulder bund, Bidar

Gabion bund, Bidar

The key areas where benefits were observed are as follows:

Development of functional Community-Based Organizations

- The following CBOs have emerged in the three micro watersheds:
  1. Self Help Groups (SHGs) - 17 (all women)
  2. Cluster Level Association (CLAs) - 2
  3. Village Watershed Committees (VWCs) - 3
  4. Watershed Development Committee (WDC) - 1

- The SHGs have provided a platform to the poor women to come together with a 'Self Help' agenda and gain awareness on several issues of interest to them. In the process their confidence levels have gone up as reflected in their dealing with the banks. In Munganal village, members have developed enough confidence to articulate and present their village needs to the Gram Panchayat, Government Departments and Bank officials.

- Common Fund of the SHGs and Loans from the banks have enabled members to:
  a) Obtain loans for various needs on favorable terms: Rs. 3.65 lakhs was secured from the banks for the credit needs of its members.
  b) Reduce/avoid dependency on moneylenders.

- CLAs by virtue of being a federated body of the SHGs have evolved during the period to take up issues of resource mobilization from the banks and micro finance for the members SHGs. They however need to be capacitated further in building effective relationships with the Gram Panchayats and Banks so that development resources are accessed adequately and efficiently.

- A total of 10 Trained Book writers have emerged providing book writing and record-keeping services at a nominal cost to the SHGs, CLAs and VWCs. In some SHGs these book writers have also in turn trained other book writers from amongst the members.

- VWCs have come a long way from their inception in the year 2003. They have taken responsibility for planning and implementing watershed activities and mobilizing farmers' contribution (by way of labor and cash) both for treatments and for the post-project maintenance fund. An additional Rs.1.38 lakhs – 2 per cent of the treatment costs – has been contributed by the communities towards the post-project maintenance fund.

Stabilizing food security through participatory development of degraded watersheds

- As a result of watershed treatments

Impact on food security - Availability of food grains

9 January 2007 — Village: Tuljapur

Parameters (Main food grains)	Before Intervention (2002-03)	After watershed treatments (2006)	Outcome
Sorghum	4 months	6 months	The remaining days people survive taking loans from moneylenders, and loans from SHG for financing their requirement of food grains & groceries
Red Gram	3 Quintals	4 Quintals	Since the requirement for family consumption is relatively low, most of the farmers sell the produce
Green gram	0.5 Quintal	1 Quintal	Save for a small quantity rest of the produce is sold
Black gram	1 Quintal	0.5 Quintal	As rains have not been timely for this crop, very few farmers are growing black gram and in small patches. Because of negligible production, farmers have not been able to take advantage of the very good prices in the market
Groundnut	2 Quintals	3 Quintals	After keeping a small percentage for family needs, most of the produce is sold
Bengal gram	1 Quintal	1 Quintal	15 per cent of the farmers grow Bengal gram, with most of them selling the entire produce

Analysis:
The various watershed treatments taken up are beginning to impact positively on the food security of the watershed community. Food availability has improved by up to 30 per cent as far as the main crop of Sorghum is concerned. Increased production of the other crops like redgram, pulses, etc has enabled farmers to sell the produce for a good value, after meeting their consumption requirements.

during the period the targeted small and marginal farmer's food security has been enhanced from 4 to 6 months in a year.

- The various watershed treatments have facilitated:

  - Ground water recharge resulting in dry wells being rejuvenated and water availability increasing by up to 10 months
  - Increased residual moisture on account of soil and moisture conservation has meant that main crops can withstand moisture distress periods.
  - Agricultural productivity for main crops like sorghum to increase by 30 per cent.
  - Farmers of the 3 watersheds gaining significantly in knowledge of improved agricultural practices and technologies like introduction of new and improved crop varieties.
  - In Munganal village, the use of inorganic fertilizers has come down significantly as a result of increased use of organic manure.

Promotion and development of alternative livelihood systems

- From the point of view of availing microfinance assistance, the SHGs of the watershed were a little late in developing systems and skills for the purpose. Microfinance assistance of about Rs.1.5 lakhs was availed by SHGs in Munganal village.
- SHG members were able to take up several land-based and non-land-based micro enterprises, providing convenience of services and products within the village and enabling them to augment their household incomes by 10-20 per cent.

Developing and demonstrating the concept of volunteers in watershed development

- Fifteen volunteers after training and exposure during the period have emerged as confident youth with skills and experience, in community organization, watershed delineation and treatments, and micro planning.
- These skills and experience have enabled 50 per cent of the volunteers to be employed including some in the development sector. The other 50 per cent are seeking ways and means of putting what they have learnt into practice in their own agricultural lands and contributing to the development of their villages.
- The volunteers, however, still need training on post-project management, conflict resolution and resource mobilization from banks and Gram Panchayats.

CASE STUDIES FROM BIDAR

EXPLORING EMPOWERMENT
Enhancing income through entrepreneurship

Not long ago, Kamalabai was a wage labourer working away under the sun all day. The income of her husband, a mason by profession was not enough to feed a family of six. This only increased the despair of the otherwise socially secluded family belonging to a scheduled community. After repeated coaxing by RGF volunteers, Kamalabai finally decided to join the Bhagyalakshmi self help group in November 2003. Things began to change slowly thereafter.

As an SHG member, she was a regular in the group meetings and punctual in saving money. After a training programme on entrepreneurship. Kamalabai decided she would buy a flour mill and run it with the help of her daughter-in-law. She invested Rs.15,000 of her own and sought the help of her SHG for the balance. Though her SHG did not have sufficient funds to meet her loan request, they mobilized Rs.15,000 from Jyothi Cluster Level Association and supported Kamalabai.

The flour mill was a success. It provided an additional average income of Rs.2000 – 3000 per month. After a period of 7 months, Kamalabai bought a chilli-powdering machine and vermicelli machine costing Rs.12,500 and Rs.17,000 respectively. These machines provided substantial additional income, especially during the summer months.

"From starvation to having two square meals a day, I have struggled hard to get here. But this confidence to fight poverty was because of the support given by my SHG through microcredit" says a determined Kamalabai. After repaying these loans, she plans to take another loan of Rs.20,000 to start a mechanical garage, which her two sons will manage. From being a wage labourer, Kamalabai has come a long way.

SEEING IS BELIEVING
Impact of an Exposure Visit

Govind Ingle, a poor farmer in Mungnal village was like any of his neighboring farmers. In 2003, when OUTREACH began work in Mungnal under the RGF supported watershed development program, Govind was least interested in taking part. He did not show any enthusiasm in taking up soil and water conservation measures on his land. "I could not understand how a bund could control soil erosion, but after reluctantly participating in an exposure visit to a watershed treated area in March 2005, I saw how it worked" says a changed Govind.

Until 2003, he used chemical fertilizers to raise two crops of red gram and jowar on his four acres of dry land. The total yield used to about 6 quintals of jowar and 2.5 quintals of red gram every year. He grumbled about the diminishing productivity of his land year after year.

An exposure visit to Kedargaon watershed area in Nanded, Maharashtra was the beginning of a new hope to this farmer. He interacted with other farmers there and saw the impact of conserving soil and water including the increased productivity, increased water table and enhanced scope to take up irrigated crops. This convinced Govind to contribute Rs.2000 and construct earthen bunds on 3 acres of land and reclaim another acre of land.

Soon after, he participated in another training program on organic farming. The resource person, Satyavan Patil, a progressive farmer, shared his experience with the farmers of Mungnal. This information inspired many farmers like Govind to stop using chemical fertilizers and start using farm yard manure instead. He began using biological pest control measures like jaggery solution for pest control. By the end of 2005 Govind harvested 8 quintals of jowar and 3 quintals of red gram. The results had already begun to show. "The methods and concepts were so simple and inexpensive I wondered why I did not participate in the programme earlier. I would have been better off by now" reflects Ingle.

Exposure visits and sharing experiences with other progressive farmers changed the mindset of many poor farmers like Govind.

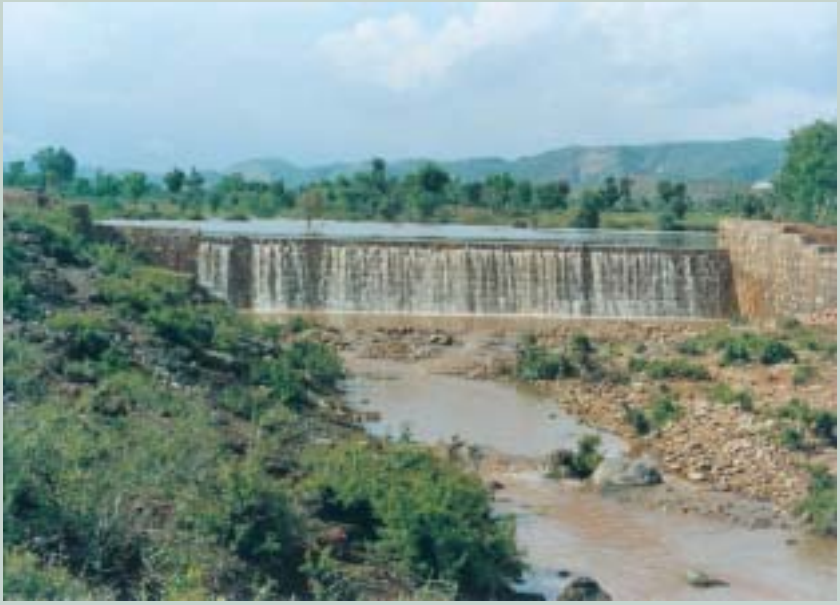
COMPLETED WATER HARVESTING WORKS IN RAJASTHAN

S. No.	District	Village	Water Structure	Status	Year of completion	Total Cost (Rs.)
BIKANER DIVISION						
1	Bikaner	Beethnokh	Tanka	Completed	2002-03	23420
2	Bikaner	Desalser	Pond	Completed	2002-03	180981
3	Bikaner	Deshnoke	Pond	Completed	2002-03	98525
4	Bikaner	Gadvala	Pond	Completed	2002-03	291407
5	Bikaner	Himtaser	Pond	Completed	2002-03	130452
6	Bikaner	Jangloo	Pond	Completed	2002-03	196887
7	Bikaner	Lakhuser	Pond	Completed	2002-03	305563
8	Bikaner	Rekhranasar	Pond	Completed	2002-03	533030
9	Bikaner	Surjeda	Tanka	Completed	2002-03	18734
DAUSA DIVISION						
10	Dausa	Dilawarpura/ Dalpatpura	Anicut	Completed	2002-03	153935
11	Alwar	Samra	Anicut	Completed	2002-03	498000
12	Alwar	Baghor	Anicut	Completed	2004-05	209945
13	Dausa	Dilawarpura/ Dalpatpura	Johad	Completed	2004-05	134820
14	Alwar	Khardata	Pond	Completed	2004-05	33935
15	Jaipur	Kuda	Johad	Completed	2004-05	166958
16	Alwar	Lothawas	Johad	Completed	2004-05	308241
17	Alwar	Macha	Anicut	Completed	2004-05	121678
18	Alwar	Panchbadhi	Johad	Completed	2004-05	60741
19	Jaipur	Phutala	Johad	Completed	2004-05	205419
20	Jaipur	Samred	Johad	Completed	2004-05	48259
21	Alwar	Toda	Johad	Completed	2004-05	55994
22	Alwar	Piplai	Anicut		2005-06	Halted*
PALI DIVISION						
23	Pali	Aneva	Anicut	Completed	2002-03	122536
24	Barmer	Ballu	Johad	Completed	2002-03	79200
25	Jalore	Bhadrajun	Anicut	Completed	2002-03	123000
26	Pali	Chokadia	Anicut	Completed	2002-03	630000
27	Pali	Dhanla	Anicut	Completed	2002-03	172375
28	Pali	Golanki	Anicut	Completed	2002-03	216000
29	Pali	Guda Premsingh	Anicut	Completed	2002-03	47517
30	Pali	Jodkeyaa	Anicut	Completed	2002-03	361500
31	Pali	Jojawer	Anicut	Completed	2002-03	87207
32	Pali	Mataji Ka Guda	Anicut	Completed	2002-03	390000
33	Barmer	Raakhi	Anicut	Completed	2002-03	221940
34	Pali	Thakurji Ka Guda	Anicut	Completed	2002-03	282275
35	Pali	Bharri	Earthen Dam	Completed	2003-04	756718
36	Pali	Guda Soor Singh	Anicut	Completed	2003-04	504016
37	Pali	Kundal	Pond	Completed	2003-04	101663
38	Pali	Siriyari	Anicut	Completed	2003-04	198135
39	Pali	Sumer	Pond	Completed	2003-04	404526
40	Pali	Bogala	Pond	Completed	2004-05	120665
41	Pali	Guda Prem Singh	Anicut	Completed	2004-05	138050

*Becuase of disagreements in the community

S. No.	District	Village	Water Structure	Status	Year of completion	Total Cost (Rs.)
42	Pali	Nai Sansari	Earthen Dam	Completed	2004-05	117218
43	Pali	Nava Kuda	Pond	Completed	2004-05	213916
44	Pali	Sinchana	Anicut	Completed	2004-05	91796
45	Pali	Bagol	Anicut	Completed	2005-06	260419
46	Pali	Bagol	Pond	Completed	2005-06	186716
47	Pali	Bansor	Anicut	Completed	2005-06	146403
48	Pali	Chokadia	Pond	Completed	2005-06	188992
49	Pali	Guda Prem Singh	Anicut	Completed	2005-06	152993
50	Pali	Kheda Ki Maidi	Pond	Completed	2005-06	135957
51	Pali	Nai Sansari	Anicut	Completed	2005-06	98607
52	Pali	Guda Padam Singh	Earthen Dam	Completed	2006-07	132141
53	Pali	Dewewr Ka Odha	Anicut	Completed	2006-07	249204
54	Pali	Ladwa Dhani	Anicut	Completed	2006-07	205255
55	Pali	Ashapura	Earthen Pond	Completed	2006-07	125028
56	Pali	Jhambuda	Earthen Pond	Completed	2006-07	100418
57	Pali	Chokadia	Earthen Pond	Completed	2006-07	163359
58	Pali	Nimbli	Anicut	Completed	2006-07	313270
59	Pali	Bogala	Earthen Pond	Completed	2006-07	155192
60	Pali	Dhal	Anicut	Completed	2006-07	112111
61	Pali	Bansor-I	Spillway	Completed	2006-07	87100
62	Pali	Bansor-II	Earthen Pond	Completed	2006-07	62973
63	Pali	Guda Soor Singh	Anicut	Completed	2006-07	102265
SAWAI MADHOPUR DIVISION						
64	Dausa	Bairvao Ka baas	Pond	Completed	2002-03	188015
65	Karoli	Dolatiya	Pond	Completed	2002-03	79414
66	Karoli	Gidani	Pond	Completed	2002-03	94125
67	Sawai Madh.	Gurjar Baroda	Anicut	Completed	2002-03	63400
68	Sawai Madh.	Kadai Gawadi	Anicut	Completed	2002-03	41875
69	Dausa	Kishore Pura	Pond	Completed	2002-03	163627
70	Sawai Madh.	Ranoli	Anicut	Completed	2002-03	47139
71	Karoli	Amreki	Anicut	Completed	2003-04	212436
72	Karoli	Amreki (Semri)	Johad	Completed	2003-04	126802
73	Karoli	Chainpura*	Johad	Completed	2003-04	222704
74	Karoli	Doyaley Pura	Pond	Completed	2003-04	132055
75	Karoli	Ghasinghpura	Pond	Completed	2003-04	161805
76	Karoli	Ghasinghpura	Anicut	Completed	2003-04	253183
77	Karoli	Raibelli	Johad	Completed	2003-04	123654
78	Karoli	Rampura	Johad	Completed	2003-04	172514
79	Karoli	Rampura	Johad	Completed	2003-04	232465
80	Karoli	Shyampur	Pond	Completed	2003-04	77157
81	Karoli	Shyampura Pator	Johad	Completed	2003-04	102792
82	Karoli	Gurja	Pond	Completed	2004-05	109656
83	Karoli	Shyampura Pator	Pond	Completed	2004-05	156791
84	Karoli	Teen Pokhar	Pond	Completed	2005-06	139621
85	Karoli	Chainapura - II	Earthen Dam	Completed	2005-06	90326
86	Karoli	Amreki	Pond	Completed	2005-06	194132
87	Karoli	Bada Shyampur	Pond	Completed	2005-06	69508
88	Karoli	Chainapura - I	Earthen Dam	Completed	2005-06	260039

S. No.	District	Village	Water Structure	Status	Year of completion	Total Cost (Rs.)
89	Karoli	Choubeki - I	Earthen Dam	Completed	2005-06	174352
90	Karoli	Choubeki - II	Pond	Completed	2005-06	135466
91	Karoli	Choubeki - III	Pond	Completed	2005-06	149968
92	Karoli	Daulatpura	Earthen dam	Completed	2005-06	133167
93	Karoli	Doyalepura	Pond	Completed	2005-06	68420
94	Karoli	Rahir	Earthen dam	Completed	2005-06	240766
95	Karoli	Ghasingpura	Anicut	Completed	2005-06	24260
96	Karoli	Ghasingpura	Pond	Completed	2006-07	25760
97	Karoli	Dhandhurat-I	Pond	Completed	2006-07	180271
98	Karoli	Bahadurpur	Pond	Completed	2006-07	114436
99	Karoli	Albatki-I	Pond	Completed	2006-07	142376
100	Karoli	Albatki-II	Retg. Wall	Completed	2006-07	112203
101	Karoli	Albatki-III	Retg. Wall	Completed	2006-07	34468
102	Karoli	Shayampur	Pond	Completed	2006-07	76127
103	Karoli	Amreki	Anicut	Completed	2006-07	122904
104	Karoli	Rajpur	Pond	Completed	2006-07	169036
105	Karoli	Kot	Johad	Completed	2006-07	89067
106	Karoli	Teen Pokhar	Pond	Completed	2006-07	157326
107	Karoli	Rahir	Pond	Completed	2006-07	236599
JAMWA RAMGARH, JAIPUR						
108	Jaipur	Barana Dhani	Pond	Completed	2002-03	45074
109	Jaipur	Barana Dhani	Pond	Completed	2002-03	126786
110	Jaipur	Bassi	Pond	Completed	2002-03	65784
111	Jaipur	Behlod	Pond	Completed	2002-03	28269
112	Jaipur	Dagota	Pond	Completed	2002-03	107959
113	Jaipur	Gathajari	Pond	Completed	2002-03	102636
114	Jaipur	Gathajari	Earthen Dam	Completed	2002-03	180178
115	Jaipur	Kusalpura	Pond	Completed	2002-03	53085
116	Jaipur	Lunetha	Pond	Completed	2002-03	108650
117	Jaipur	Neemla	Pond	Completed	2002-03	87996
118	Jaipur	Neemla	Pond	Completed	2002-03	172878
119	Jaipur	Ramyala	Pond	Completed	2002-03	78787
120	Jaipur	Srinagar	Pond	Completed	2002-03	118922
121	Jaipur	Sriram Gopalpura	Pond	Completed	2002-03	42496
122	Jaipur	Tirlokpura	Pond	Completed	2002-03	88745
123	Jaipur	Barana Dhani	Pond	Completed	2003-04	53224
124	Jaipur	Barana Dhani	Pond	Completed	2003-04	59219
125	Jaipur	Barana Dhani	Anicut	Completed	2003-04	155980
126	Jaipur	Bhopala	Pond	Completed	2003-04	83846
127	Jaipur	Bhopala	Pond	Completed	2003-04	109320
128	Jaipur	Bhopala	Pond	Completed	2003-04	122697
129	Jaipur	Darolai	Pond	Completed	2003-04	8537
130	Jaipur	Darolai	Pond	Completed	2003-04	28846
131	Jaipur	Darolai	Pond	Completed	2003-04	30150
132	Jaipur	Darolai	Anicut	Completed	2003-04	70485
133	Jaipur	Darolai	Anicut	Completed	2003-04	109620
134	Jaipur	Darolai	Anicut	Completed	2003-04	148531
135	Jaipur	Gathajari	Pond	Completed	2003-04	161014



S. No.	District	Village	Water Structure	Status	Year of completion	Total Cost (Rs.)
136	Jaipur	Gathajari	Anicut	Completed	2003-04	182861
137	Jaipur	Jhojharwala	Earthen Dam	Completed	2003-04	145817
138	Jaipur	Raksya Jagatsar	Pond	Completed	2003-04	127415
139	Jaipur	Singhpuri	Pond	Completed	2003-04	49089
140	Jaipur	Srinagar	Pond	Completed	2003-04	95977
141	Jaipur	Srinagar	Pond	Completed	2003-04	132659
142	Jaipur	Sriram Gopalpura	Pond	Completed	2003-04	48954
143	Jaipur	Thali	Anicut	Completed	2003-04	225974
144	Jaipur	Tirlokpura	Pond	Completed	2003-04	40255
145	Jaipur	Barana Dhani	Pond	Completed	2004-05	177159
146	Jaipur	Bassi	Earthen Dam	Completed	2004-05	131018
147	Jaipur	Bassi	Pond	Completed	2004-05	156258
148	Jaipur	Bassi	Earthen Dam	Completed	2004-05	178597
149	Jaipur	Bassi	Anicut	Completed	2004-05	1104813
150	Jaipur	Behlod	Earthen Dam	Completed	2004-05	35043
151	Jaipur	Behlod	Earthen Dam	Completed	2004-05	38941
152	Jaipur	Behlod	Earthen Dam	Completed	2004-05	54962
153	Jaipur	Behlod	Pond	Completed	2004-05	84804
154	Jaipur	Behlod	Earthen Dam	Completed	2004-05	178646
155	Jaipur	Bhopala	Earthen Dam	Completed	2004-05	10368
156	Jaipur	Bhopala	Earthen Dam	Completed	2004-05	13876
157	Jaipur	Bhopala	Pond	Completed	2004-05	226038
158	Jaipur	Chainpura	Anicut	Completed	2004-05	273766
159	Jaipur	Dagota	Pond	Completed	2004-05	17168
160	Jaipur	Dagota	Pond	Completed	2004-05	92926
161	Jaipur	Dagota	Anicut	Completed	2004-05	893361
162	Jaipur	Darolai	Johad	Completed	2004-05	41671
163	Jaipur	Darolai	Anicut	Completed	2004-05	141155
164	Jaipur	Devineecha	Pond	Completed	2004-05	11911
165	Jaipur	Devineecha	Pond	Completed	2004-05	19883
166	Jaipur	Devineecha	Anicut	Completed	2004-05	104813
167	Jaipur	Devineecha	Anicut	Completed	2004-05	366791
168	Jaipur	Gathajari	Pond	Completed	2004-05	63485
169	Jaipur	Guwada	Johad	Completed	2004-05	46369
170	Jaipur	Jhojharwala	Earthen Dam	Completed	2004-05	22552
171	Jaipur	Khanya	Pond	Completed	2004-05	12652
172	Jaipur	Khanya	Pond	Completed	2004-05	18252
173	Jaipur	Khanya	Pond	Completed	2004-05	19353
174	Jaipur	Khanya	Pond	Completed	2004-05	27034
175	Jaipur	Khanya	Earthen Dam	Completed	2004-05	34083
176	Jaipur	Khanya	Earthen Dam	Completed	2004-05	90267
177	Jaipur	Khanya	Anicut	Completed	2004-05	104237
178	Jaipur	Khanya	Anicut	Completed	2004-05	128735
179	Jaipur	Khanya	Anicut	Completed	2004-05	470844
180	Jaipur	Kilatpuri	Pond	Completed	2004-05	70531
181	Jaipur	Kusalpura	Pond	Completed	2004-05	19277
182	Jaipur	Kusalpura	Earthen Dam	Completed	2004-05	72217
183	Jaipur	Kusalpura	Pond	Completed	2004-05	133811

S. No.	District	Village	Water Structure	Status	Year of completion	Total Cost (Rs.)
184	Jaipur	Kusalpura	Earthen Dam	Completed	2004-05	340201
185	Jaipur	Lunetha	Pond	Completed	2004-05	298112
186	Jaipur	Manhgor	Earthen Dam	Completed	2004-05	370228
187	Jaipur	Raisar	Johad	Completed	2004-05	30817
188	Jaipur	Raisar	Anicut	Completed	2004-05	922063
189	Jaipur	Ramyala	Pond	Completed	2004-05	102793
190	Jaipur	Ramyala	Pond	Completed	2004-05	118024
191	Jaipur	Ramyala	Pond	Completed	2004-05	136010
192	Jaipur	Ramyala	Pond	Completed	2004-05	158118
193	Jaipur	Ramyala	Pond	Completed	2004-05	240772
194	Jaipur	Ramyala	Pond	Completed	2004-05	262573
195	Jaipur	Singhpuri	Pond	Completed	2004-05	57936
196	Jaipur	Singhpuri	Pond	Completed	2004-05	80438
197	Jaipur	Srinagar	Earthen Dam	Completed	2004-05	7658
198	Jaipur	Srinagar	Earthen Dam	Completed	2004-05	16079
199	Jaipur	Sriram Gopalpura	Anicut	Completed	2004-05	11675
200	Jaipur	Thali	Pond	Completed	2004-05	41896
201	Jaipur	Thali	Pond	Completed	2004-05	67922
202	Jaipur	Thali	Pond	Completed	2004-05	109268
203	Jaipur	Thali	Pond	Completed	2004-05	114714
204	Jaipur	Thali	Earthen Dam	Completed	2004-05	424134
205	Jaipur	Tirlokpura	Pond	Completed	2004-05	67825
206	Jaipur	Tirlokpura	Pond	Completed	2004-05	74696
207	Jaipur	Tirlokpura	Pond	Completed	2004-05	341531
208	Jaipur	Darolai	Anicut	Completed	2006-07	183850
209	Jaipur	Bhopala	Earthen Dam	Completed	2006-07	104420

SUMMARY

Division	No. of structures	Total cost
Bikaner	9	1778999
Dausa	12	1997925
Pali	41	8358656
Sawai Madhopur	44	5902207
Jamwa Ramgarh	102	13970135
Total	**208**	**32007922**

Note

1. Total cost includes at least 33 per cent community contribution.
2. Funding support for the water harvesting structures was received from the Ford Foundation, DANIDA, Ireland Aid, Deutsche Bank and GTZ supplemented by RGF.

NATURAL RESOURCE MANAGEMENT

HIGHLIGHTS 2001 — 2007

2001-2002

- RGF's first step into direct project implementation.
- "A Green Corps" of rural volunteers for water harvesting established with recruitment of 41 volunteers
- Capacity building of volunteers through residential as well as on the job training
- Community action mobilised for water harvesting
- Work initiated for construction of water harvesting structures in 33 villages in 9 districts of Rajasthan
- Village communities contribute at least one third of the cost.

2002-2003

- A more challenging programme of watershed development initiated in Jamwa Ramgarh block of Jaipur district
- Green Corps expanded to 59 volunteers
- 46 water harvesting structures completed
- Work in progress at 15 more sites
- About 93000 people and 239000 livestock benefited

2003-2004

- 38 water harvesting structures completed in Rajasthan
- Work in progress at 47 more sites in Rajasthan
- Approximately 80,000 person days of wage employment generated in Rajasthan
- The 'Green Corps' project expanded to Bidar, one of the poorest district of Karnataka
- Strength of Green Corps increased to 67 (50 as on 31 March 2003)
- Capacity building of the volunteers as well as the village communities continues
- Micro plan prepared for 2000 hectare watershed development in Bidar; treatment work initiated
- 11 Self Help Groups formed in Jamwa Ramgarh, Jaipur district and 15 in Bidar

2004-2005

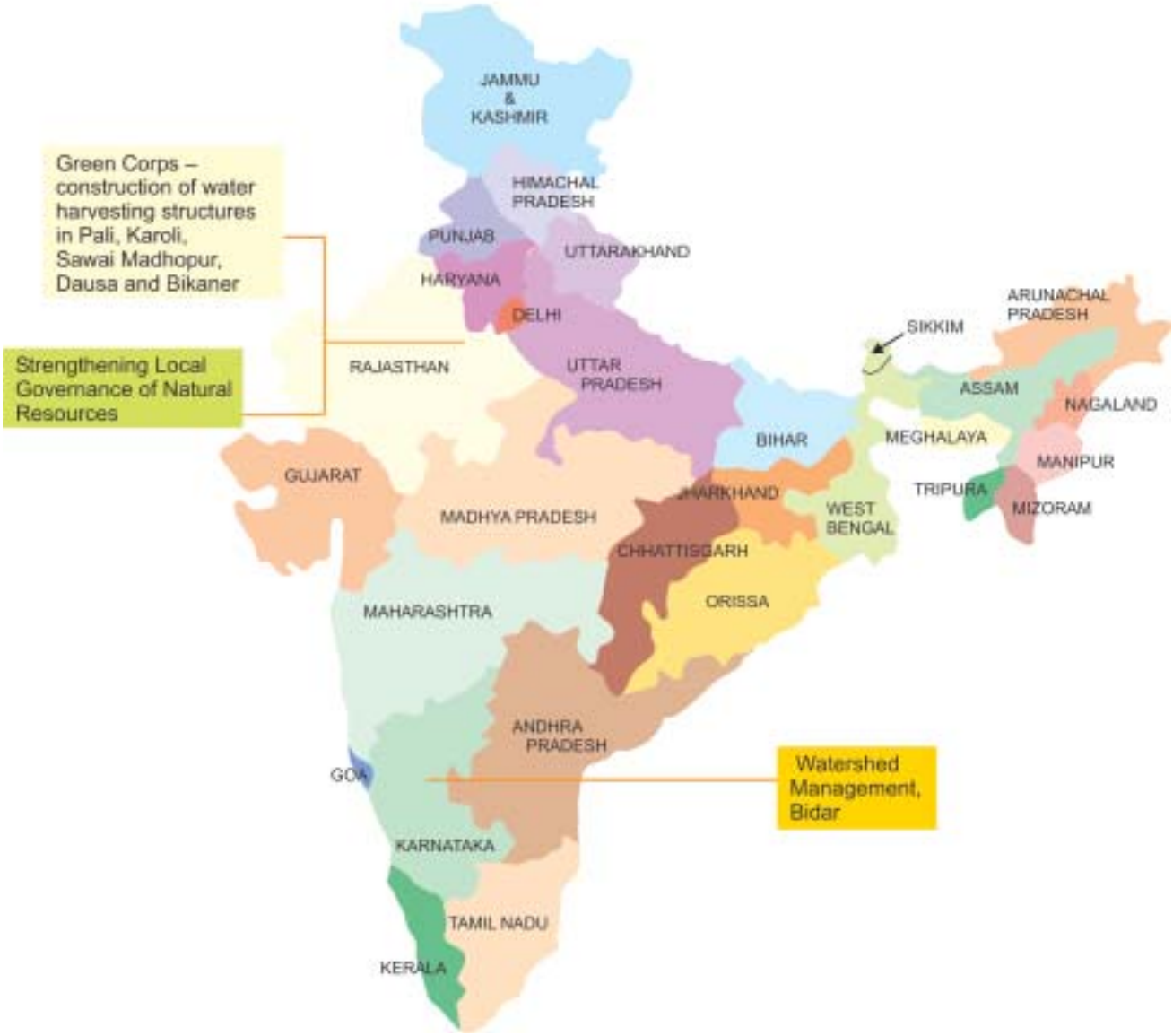
- 79 water harvesting structures completed in Rajasthan
- Work in progress at 19 more sites in Rajasthan
- Capacity building of volunteers through regular monthly meetings, residential and on the job trainings

- Village water fund (jal kosh) created in 11 villages, having a total amount of Rs. 22260
- Ten Self Help groups formed in Rajasthan
- Rs. 1,40,000 worth of bank loans mobilised by Self Help Groups in Karnataka
- Total common fund (including savings) of Rs. 2,01,432 created by Self Help Groups in Karnataka
- Two cluster level associations of Self Help Groups formed in Karnataka
- Successful trial of red seed grams variety ICPL – 85063 conducted in Karnataka

2005-2006

- 19 water harvesting structures completed in Rajasthan, making a cumulative total of 182.
- Two training manuals on watershed development developed for grass-root level organizations and for workers of NGOs/ CBOs.
- 18 training and exposure visits organized for field workers and community members.
- Five new Cluster Level Associations (CLA) of SHGs formed in Bidar, linked up with banks.
- Watershed Maintenance Fund (WMF) built in Bidar with cash contributions from farmer's of Rs. 1.11 lakhs.
- Cumulative total common fund (including savings) of Rs. 13,20,129 mobilized by SHG members in Bidar and inter loaning of Rs. 40,47,534 carried out by the groups.

2006-2007

- 26 water-harvesting structures completed in Rajasthan, work in progress at 7 other sites.
- Since 2001, a total of 208 structures completed in Rajasthan at a total cost of Rs. 3.2 crores, including at least 33 per cent community contribution.
- Two Cattle Development Centres established to serve the 28 villages of Jamwa Ramgarh block.
- 41 women SHG's formed in Jamwa Ramgarh and members trained.
- 139 members of 17 Jal Samitis trained on collective decision-making for management of local natural resources.
- Water availability increased in Bidar through ground water recharge from earlier 6 months to 10 months.
- Rs.1.38 lakhs contributed by the communities towards post project Watershed Maintenance Fund.

RGF'S NATURAL RESOURCE MANAGEMENT PROGRAMMES IN INDIA