

# COLLABORATIONS FOR FOREST LAND TREATMENT IN FOREST FRINGE WATERSHEDS

Towards enhancing ecosystem services of watershed projects

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## INTRODUCTION

Watershed management principles firmly espouse the “ridge to valley” approach. When interventions for treating watershed areas begin at the ridge portion of the watersheds, these structures/measures serve their purpose more comprehensively, efficiently, and for a longer period, as they are actually an inalienable part of the watershed system in its entirety. Such an approach also ensures project-design economy and appropriate land use at various levels of the watershed area. It is common knowledge that forest lands are invariably excluded from watershed plans, owing to the rift between the Forest and Rural Development Departments, where the Forest Department does not allow the Rural Development Department to enter the forest for treatment and the Rural Development Department is not willing to share the financial resources for treatment of forest land with the Forest Department. It is also a known fact that such exclusion

results in damage to the watershed treatment-related interventions/structures or condemns them to a short life, since appropriate complementary treatment of some linked levels is neglected.

Besides, the divide between forest lands and watershed programme areas has some major implications, such as:

- i) The watershed treatment is incomplete as upper reaches of the watershed are left untreated.
- ii) Watershed programmes tend to ignore the need to work with the product flows that link forests, agriculture, and livestock.
- iii) Opportunities are left unexplored to strengthen forest-based livelihoods for communities that live in close proximity to forests, and to create additional buffer resources (particularly fodder) within revenue lands so that the pressure on forests reduces.





## COLLABORATIONS TO BRING CHANGE

Centre for People's Forestry (CPF) and WASSAN<sup>1</sup> have been working actively in this field since 1996. While CPF has been working with forest communities in general, and with the Vana Samrakshana Samithis (VSSs) in particular, WASSAN has been working with watershed projects. The two organisations have, respectively, good rapport with the Forest Department (CPF) and the Rural Development Department (WASSAN). When both the organisations had discussions on the issue of forest land treatment in 2008, it was felt that there was a strong need to work in collaboration and explore the possibility of working through the communities of VSS and watershed committees, in a bottom-upwards approach because it is feasible, practical, and the best means to bring in convergence among the communities at the grass-root level, as they all live in the same village, often with overlapping memberships in different community institutions. It was proposed to bring in convergence at the community level in the first place and then approach the respective departments through the concerned community institutions. The plan was to sensitise both watershed committees and VSS members on the need to carry out treatment in the forest land adjacent to the watershed. The next step would be to develop forest treatment plans in consonance with the watershed treatment plans on the one hand, and to seek cooperation of the officials at various levels of the Forest and Rural Development Departments on the other, so that both watershed and forest treatment plans could be integrated.<sup>2</sup> For the Forest Department, it would be acceptable to work with the VSS communities with respect to approving the treatment plans and allowing the community to execute the approved plans.

<sup>1</sup> WASSAN – Watershed Associated Services and Action Network

<sup>2</sup> There were instances earlier, where the Forest Department agreed to treat the forest lands on its own (where watershed projects are in the fringe areas), but such independent efforts could not yield desired results as there was no integration of the treatment plans of the watershed and the forest land.

## THE INTERVENTION

In the above context, CPF approached the Ford Foundation for support<sup>3</sup> to facilitate action using this new explanatory approach in a few watersheds of Adilabad and Karimnagar districts. These watershed projects were supported by NABARD (National Bank for Agriculture and Rural Development), and local NGOs have been implementing them. WASSAN acts as a resource support agency, commissioned by NABARD, to these local NGOs. Both CPF and WASSAN agreed on a few modalities of collaboration, namely, CPF would work with VSS communities and coordinate with the Forest Department, while WASSAN worked with watershed committees and coordinated with Rural Development Department and NABARD; both CPF and WASSAN would together facilitate development of forest treatment plans in consonance with the watershed plans; and CPF would facilitate the execution of such plans by the VSSs, and the action plan and modalities were discussed with the concerned senior official of the Forest Department. The Forest Department has agreed to the idea in principle and stated that permissions for treatment will be accorded on a case-by-case basis, after receiving a formal request.

<sup>3</sup> The activity has been initiated in 2009 with the support of the Ford Foundation..





## PILOT WORK IN THREE WATERSHEDS

Initially, the CPF and WASSAN teams jointly identified the forest lands that formed the ridge to three watersheds in Adilabad district (details are provided in Table 1). With the help of the local NGO PIAs (Project Implementing Agencies) and the Forest Department, the VSSs associated with these forests were identified. After this, CPF sought the cooperation of the Forest Department to advise its field functionaries to extend necessary support to the CPF team, for developing forest

treatment plans. The officials of the Forest Department head office issued instructions to their field officers. Once the plans were developed and technical approval sanctioned by the concerned DFO (District Forest Officer), and a resolution passed by the VSS to do the work, a formal request was submitted to the Forest Department, seeking permission to allow the VSSs to take up treatment of forest land, accessing MNREGS (Mahatma Gandhi Rural Employment Guarantee Scheme) funds earmarked for forestry work. This permission was duly granted.

Table 1

Name of the watershed	Extent in ha	Forest land extent in ha	Associated VSS and number of members	Works carried out in forest area during 2010–2012
Settihadapnoor	974.73	482.56	Kohinoor–K, 410	CCT* – 1667.64 cmt <sup>†</sup> , plantation of 2000 seedlings in CCT
Kohinoor–B	915.75	164.00	Ragapur, 120	CCT – 1418.58 cmt, plantation of 2000 seedlings in CCT, bush clearance in 10 ha
Yamaikunta	848.50	112.00	Yamaikunta, 82	CCT – 1257 cmt, plantation of 4000 seedlings in CCT

\*Continuous Contour Trench

<sup>†</sup>Cubic metre

# PROCESS STEPS

- 1 Identification of watersheds and local implementing agencies in forest fringe areas
- 2 Collaborative meeting with Forest Department, NABARD, Agriculture Department, Animal Husbandry Department, NGOs, and community
- 3 Obtaining details of VSSs and their forest, and of works executed and sanctioned in forest area
- 4 Awareness meetings with VSS and VWDC (Village Watershed Development Committee)
- 5 Grooming of VSS field volunteers
- 6 Developing treatment plans involving VSS, VWDC, NGOs, and forest staff
- 7 Passing resolutions (regarding forest treatment) in the Gram Sabha,<sup>4</sup> in the presence of forest staff
- 8 Submission of forest treatment plans to Forest Range Officer (FRO) for processing
- 9 Technical training (in types of work such as CCTs, LBs, etc., and measurement of technical specifications such as dimensions of proposed structures, etc.) to wage-seekers of the particular forest village involved
- 10 Capacity-building activities for VSS members (training on production enhancement, exposure visits)
- 11 Follow up by VSSs with FRO (Forest Range Officer) for receipt of sanctions
- 12 Meetings for sharing information on work sanctions, and to drive motivation among members
- 13 Preparation of action plan for execution, allowing for integration of forestry works with watershed works
- 14 Facilitate formation of VSS/VWDC wage-seekers' groups
- 15 Intimating the Forest Department about the execution of work
- 16 Book-keeping of works and measurements by field volunteers
- 17 Participation of VSS members and VSS field volunteers during check measurement by Forest Department officials
- 18 Assisting VSSs by facilitating follow-up for receiving their wages on time
- 19 Review meetings with field volunteers and VSS members on progress of works
- 20 Documenting the impacts (ground water recharge, net area irrigated, and crop yield)

<sup>4</sup> Since funds are sought from MNREGS, a Gram Sabha resolution is needed.

## REPLICATION OF THE WORK IN TEN OTHER WATERSHEDS

The work has been replicated in 10 other watersheds of Adilabad and Karimnagar districts. Details of these watersheds are provided in Table 2.

Table 2

S. No.	Name of the watershed	Extent in ha	Forest land extent in ha	Associated VSS and number of members	Works carried out in forest area during 2010–2012 <sup>5</sup>
1	Dignur	1343	186	Gubba, 106	CCT – 593 cmt, plantation of 2000 seedlings
2	Rampur	1468	286	Rampur, 124	CCT – 601 cmt, plantation of 2000 seedlings
3	Brammeswar	1000.5	570	Brammeswar, 286	CCT – 352 cmt, plantation of 2000 seedlings
4	Belgaon	1980	395	Belgaon, 114	CCT – 1882 cmt, plantation of 2000 seedlings
5	Virgaon	1078	424	Nandhupadu, 265	CCT – 1058 cmt
6	Nizambad	1456.14	132.71	Nizambad, 2000	CCT – 850 cmt, SLT* – 51.25 cmt
7	Namiligundupalli	1247.79	222.18	Nukalamarri, 1148	CCT – 528 cmt
8	Surampeta	2016	1100	Surampeta, 332	CCT – 188.37 cmt
9	Bathulapalli	1055.25	310	Bathulapalli, 176	CCT – 177.87
10	Bayyaram	2124.25	533.75	Ankushapur, 168	CCT – 299.4 cmt

<sup>5</sup> Some of the sanctioned works could not be executed in forest lands due to the delay in payments from the Forest Department under MNREGS leading to non-participation of VSS wage seekers. It was noted by CPF that there are many differences in the implementation of regular MNREGS and Forest MNREGS. Unless changes are brought in the way the Forest MNREGS is functioning currently, it will be difficult to take up this kind of work. CPF has been undertaking an independent study in other locations too, to understand the nature of, and reasons for, these gaps, and to come up with practical suggestions.

\* Semi Lunar Trench

*Kumar Gangaram*, a farmer in Kohinoor–K VSS, Settihadapnoor watershed, says, “Our farm lands are adjacent to the forest. In these lands, we carried out CCT works, watershed works, and the building of bunds. By doing this, a lot of rainwater is contained and agricultural production is increased. Earlier, when there was a lot of rainwater flowing over our lands, seeds and manure would get washed away and destroyed. By building these structures in the forest we are able to protect our seeds and manure. Agriculture is good and we are able to sow for two seasons. Now we cultivate during both *rabi* and *kharif*, growing crops such as cotton, *jowar*, green gram, *urad dal*, and maize two to three times a year.”



*Mesram Atram*, VSS president, Kohinoor–K, Settihadapnoor watershed, says, “At present, there are watershed works in the forest and in our agriculture lands; that is helping to stop rain water from flowing onto our farmlands. We are benefitting a lot from this change and are harvesting twice a year now.”

### **Pilot work in IWMP watersheds of Andhra Pradesh**

When CPF approached the State Level Nodal Agency (SLNA), which is responsible for implementation of IWMP projects, of Andhra Pradesh in 2013, to consider mainstreaming this initiative in the ongoing IWMP programme, SLNA responded very positively. It turned out that SLNA, too, had been working on such an idea and had done all the preparatory work of identifying the watersheds from among the 2009–10 batch of watersheds selected for treatment, which have forests as a ridge, preparing the maps, etc. As CPF has prior experience in facilitating the treatment of forest land that forms ridge to the watersheds, it was asked to collaborate with SLNA. After a multi-stakeholder consultation, the Forest Department agreed to extend cooperation and participate in the initiative. Guidelines were issued by the SLNA about the modalities of collaboration clearly defining the roles of SLNA, PIAs, the Forest Department, and CPF. It has been proposed to initially work in five watersheds from three districts. The details about these watersheds and the PIAs were shared by SLNA with the Forest Department, and they in turn issued instructions to their field functionaries. The role of a facilitator at local and state levels was played by CPF. After initial hiccups and bottlenecks, forest treatment work has been initiated in four watershed projects<sup>6</sup> up to January 2014. Now there are plans to carry out similar work in other forest fringe watersheds.

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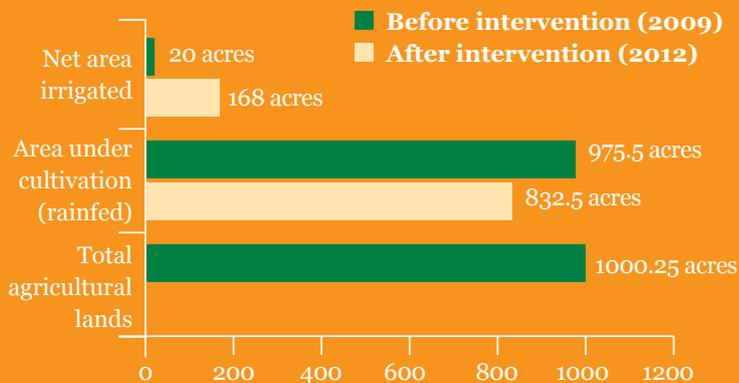
<sup>6</sup> The process has been documented and shared with SLNA.



## IMPACT

The following impacts were recorded in one of the pilot watersheds viz. Settihadapnoor watershed (China Kohinoor-K VSS) Sirpur mandal, Adilabad

→ Net area irrigated: There has been an increase in the net area irrigated, from two percent of the total agricultural land to 16.8 percent, as shown in the table below:



→ Increased crops: Most of farmers in these forest fringe areas are dependent on rainfed farming, and before the project intervention (2009), they cultivated crops such as cotton, red gram, and soya only during the *kharif* season. On treatment of those forest lands that act as ridges to the net watershed area (agriculture lands adjacent to forests), there has been a substantial rise in soil moisture content, leading to farmers practising cultivation of *jowar*, Bengal gram, and vegetables during the *rabi* season (2010–11/12) in their lands. The impacts of treatment of forest land are experienced by the communities in terms of more yield and the ability to grow a second crop. As a result, there is enhancement in the income of farmers downstream.

## Mainstreaming in the IWMP Programme at National Level

Of the 116 watershed projects that comprise the batch of 2009-10 in Andhra Pradesh, 78 projects have forest as fringe. Likewise, many more watershed projects in the next batches too have forest as ridge. It is an established fact, corroborated by the current experience of CPF, that when the forest that forms the ridge is treated and that too, in an integrated way with the watershed treatment plans, there is enhancement in the ecosystem services provided by the watershed projects in the forest fringe areas. As the ongoing IWMP programme (Integrated Watershed Management Programme) at the national level is a massive programme still in its initial stages, it will be beneficial to integrate forest land treatment with the watershed treatment in forest fringe areas. Doing so will ensure long-term benefits and success of watershed programmes as a whole. The bottlenecks, in forest MNREGS – such as delay in check measurement leading to delay in payments due to non availability of sufficient man power for execution of Forest MNREGS – unlike in the regular MNREGS, are the chief obstacle, and need to be immediately addressed to enable this process. Once these obstacles are removed, we can expect watershed programmes to demonstrate their true and lasting value.