

Report of the Technical Committee ...

# **From Hariyali to Neeranchal**

**Report of the Technical Committee  
on Watershed Programmes in India**

**Department of Land Resources  
Ministry of Rural Development  
Government of India**

January 2006

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**Cover Photos:** *Courtesy Dr. Debashis Banerji, Samaj Pragati Sahayog*

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## Foreword

I have great pleasure in submitting the report of the Technical Committee on DPAP, DDP, IWDP Programmes and related set of issues referred to the Committee.

The Committee was constituted by the Department of Land Resources, Ministry of Rural Development (MoRD), Government of India vide its Order No. S-16011/1/2004-DPAP dated 14 February 2005 (for Terms of Reference see Appendix IV of this report). The Committee was required to submit its report by 31 October 2005 but a spill over beyond that date was necessary to complete the report. A two-month extension was granted until December 31, 2005 for the submission of the report. The draft report was circulated to the members of the Committee on 2 January 2006 and a final Committee meeting was held on 16 January 2006 to approve the report, following which it was edited and printed.

At the outset, I would like to set down briefly the procedures outlined by me to enable us to gain a fuller understanding of all the complex issues involved in this significant intervention in rural development. I felt that a better understanding would emerge through an absorption of learnings from a wide range of implementation models ranging from Government-implemented programmes to insights from a significant sample of NGO initiatives, and donor-implemented programmes. This would be supplemented by a study of research findings of which there is considerable literature as one can see from the citations at the end of each chapter.

Apart from these varied sources, the Committee received responses (upon request) from various state governments on the terms of reference set for the Committee. Special consultations were held with research institutions, NGOs, donors, etc., besides papers on specific issues sought from those with expertise in respective areas.

This foreword is intended to set down the impressions gained from a wide array of sources and distill some important principles upon which this report rests. I must add at the very outset that the Committee has followed the lead of its distinguished predecessor the Hanumantha Rao Committee of 1994. Like the Hanumantha Rao Committee we have deferred categorisation of DDP and DPAP and prioritisation of IWDP blocks (our first two terms of reference) for a separate stage of work. This involves the collation and analysis of massive amounts of block-level data from across the country. This work has started and the MoRD has very kindly agreed to our suggestion that this exercise be delinked from the main report of the Committee that has now been prepared and printed.

In the current generation of watershed programmes there has been a serious effort to move away from a purely engineering and structural focus to a deeper concern with livelihood issues. The shift in approach is epitomized in the phrase “watershed plus”. This change is more clearly seen in the voluntary sector where, not surprisingly, the approach is driven at all stages by the intensity of people’s involvement in various activities of the watershed. This people-centred focus is more visible, pervasive and clearly articulated in the voluntary sector than in some of the more mechanically implemented, bureaucratically driven programmes, which are characterized by an obsession with “outlays rather than outcomes” and “accounting rather than accountability”. This observation may sound somewhat ungenerous and harsh but is nonetheless true in general of the implementation ethos in government-

implemented programmes. This does not imply that I have not seen some excellent examples of government watersheds marked by requisite commitment and enthusiasm comparable to the best that we see in other sectors.

It is probably now part of received wisdom to say that good results are seen to flow when people are involved in every stage of the programme from concept to commissioning. WOTR and HST in Maharashtra, MYRADA in Karnataka, and the Andhra Pradesh and Orissa livelihood programmes of DFID are a few outstanding examples of agencies and projects with a significant people-centric approach. I was particularly impressed by the Participatory Net Planning (PNP) method of WOTR where each holding is visited by the planning team to survey and decide proposed improvements along with the concerned farmer, thus developing a sense of ownership. The benefits of weaving in gender at all stages of the development process also enhances the capacity of women to participate and contribute to decision-making. They thereby become full-fledged citizens of the community in their own right.

I have been similarly impressed by projects where the fruits of science and technology have been harnessed to plan out a set of interventions. A sense of fairness always prevails when objective data, say from imageries and maps in conjunction with ground truthing, are used as a basis for implementation. Many state governments are now using satellite data for mapping natural resources and for preparing micro-watershed plans. In particular the methodology developed for geo-referencing of village maps has been used by the state governments of Maharashtra and Chhattisgarh, with each village contributing through the Gram Panchayat for this activity. The wider use of satellite data contributes to a more transparent defence against political and other pressures, which more often than not are the drivers of priority in development programmes across the country.

Transparency in programme implementation is another area of concern. One comes across some interesting ways in which this is enforced, for example, when details of the programme are posted on the walls of buildings in villages, and the programme itself gains in credibility and acceptance. This is now a widespread phenomenon cutting across programmes whether they are governmental or voluntary. I saw excellent examples of this in Gujarat, Maharashtra, Madhya Pradesh, Orissa, Karnataka, Tamil Nadu, Andhra Pradesh, to name a few states. Yet another significant fallout of display of watershed maps and programme details (including sometimes quality information like “Below Poverty Line” families covered, etc.) is that they have a favourable impact on the community’s understanding of what is grounded as a development programme. Expenditure details in particular enforce accountability of leaders and committees to the community at large. I was pleasantly surprised to see that the technical details of a watershed, like gully-plugging, nala-training, contour bunds, check-dams, etc., were being handled with a flourish by the so-called illiterate villagers, including women, who had no trouble understanding the technical nuances. This indeed amounts to bringing science to the doorstep of the villager in imaginative ways, which will in due course enable them to be part of a scientific discourse.

Similarly, participatory monitoring and evaluation systems (PMES) are gaining significance. We have to move, in the words of Crispino Lobo of WOTR, from regarding monitoring and evaluation as not merely a surveillance mechanism, but to viewing it as a management tool; not to prove but to improve efficiency, effectiveness, and

sustainability of interventions. Notable work has been done by WOTR on improving PMES as a decision-support system, and to generate key learnings with the participation of all stakeholders, with focus on capacity building and empowerment. Apart from the concurrent monitoring and qualitative assessment matrix of WOTR, innovative work has been done in other projects as well, as may be seen in the process benchmarking of Andhra Pradesh Rural Livelihood Project (APRLP) and WASSAN; monitoring of 10 poorest families adopted by DANIDA; besides a number of tools adopted by different agencies such as MYRADA, KAWAD, AKRSP, BAIF, etc. There is need for reworking national guidelines on this subject, to make it more of a learning process rather than a reporting requirement relating to financial releases.

One of the recurring debates in the watershed programme is about the “local contribution” that is required from the community before projects are taken up. This aspect is often handled mechanically and in somewhat disturbing ways whereby the landless end up paying a price for the larger development of a village, and in the end are deprived of a meaningful share in the outcomes. In some voluntary sector projects, however, this is handled more imaginatively in terms of a commitment from the community right at the start by way of some *shramdaan*, which often results in useful assets for the people living in the village. In many NGO projects no work is taken up unless a firm commitment from the community is available before the programme commences, in the form of voluntary effort or *shramdaan*. In other words, there is no “free-lunch”. This type of approach is seen in work done by agencies like WOTR, HST, Premji Bhai Patel and MYRADA.

Coming to the often debated subject of community capacity building, I met many women’s SHGs across the country in order to understand their dynamics. It was an eye-opener to see the phenomenon growing in scale and significance, and rapidly assuming the character and potential of a mass movement. It is still too early to gauge its full significance or predict its future course. One thing is clear: rural women are finding a “voice” as one landless and illiterate woman expressed graphically in one of the meetings; they are rapidly freeing themselves from male dominance within the household, and the stranglehold of the money lender without, and wherever this movement is strong and well-organized, the money lender has shifted his operations and disappeared from the village. Women are learning to save and borrow to meet their household and micro-enterprise needs, and doing this with some skill and business sense. The banks are interestingly zeroing in on these organizations to whom they realize, money can be lent without risk, since their repayment record is nearly always impeccable. SHGs in some states, where the development environment is congenial, have grown into federations, and in due course will go on to assume the leadership of larger and diversified development programmes at the village level. In the OUTREACH projects in Chittoor district (Andhra Pradesh), collective marketing by federation of SHGs looked promising for the future since SHGs beyond a particular threshold are unable to market their products.

I saw the work done by Aga Khan Rural Support Programme (AKRSP) in Gujarat where women’s SHGs have assumed the entire responsibility for land management, water conservation and watershed programmes including their accounting and technical aspects, thus demonstrating that these responsibilities are not beyond the capabilities of these women. Similar examples are legion in many parts of the country. All these developments are heartening to see and in this lies more than a ray of hope for the future of watersheds.

On the increasingly important issue of groundwater and its usage, communities which are well organized and have the right type of leadership are increasingly turning to self-regulation of critical resources. The whole issue of groundwater regulation and usage which is of critical importance to the future of the community is being handled very well by some communities. In many of the projects, where people's initiative is pronounced, no pumping is allowed, no water intensive crops are allowed to be grown, priority is given in summer to the drinking water needs of the community including their livestock, and reliance on water tankers has ceased. In these communities there is a better understanding of how this precious and dwindling water resource is to be used. Policy makers and programme implementers need to grapple with this issue now in a serious manner, considering the happy results that have flowed from self-regulation by the community of conserved water resources. When things are handled this way and livelihoods prosper in the village, one gets to see that rare phenomenon of reverse migration, of people returning from the city to the village (Hivre Bazar, Ahmednagar district, Maharashtra, is one example that was cited, where people have drifted back into the village from Mumbai sensing greater opportunities in a dynamic watershed setting).

Training is a much talked about but neglected aspect of watershed programming. We saw some excellent efforts in Darewadi Training Centre (WOTR), Samaj Pragati Sahayog (SPS), and Rural Development Trust (RDT) in Anantpur, to quote a couple of examples of places where trainees from all over the country are flocking to get trained in various aspects of watershed programmes. Where the training centres are located in the watershed itself, there is a greater opportunity for practical on-site learning and absorption. At SPS tribals are being trained in the vernacular and in esoteric accounting procedures such as double-entry bookkeeping! It is time we made a list of outstanding institutions imparting meaningful training and supported them under this programme.

There has been a wide-ranging debate on the role of PRIs, especially in the context of the Hariyali guidelines. I have seen excellent examples of able panchayat presidents, vibrant gram panchayats, active and growing bodies like SHGs, watershed committees, etc. But the debate on the choice of implementing agencies is a never-ending one. We have tried to steer a balanced, middle way in the relevant chapter of this report. However, the impression that I got was that gram panchayats are overburdened with budgetary allocations, their hands are full, and that watershed implementation is best handled through watershed committees on which the gram panchayat could well be represented. One also veered around to the view that accountability in the village is best enforced in and through the gram sabha as it has a grandstand view of all that happens in a village. I was also inclined to share the view presented in some expert consultations that gram panchayats are best equipped to handle fiscal, regulatory and enforcing functions, and that programmes like watersheds involving the entire community are best left to the so-called "General Assembly" of the village (i.e., the gram sabha) and its elected committees. One was also inclined to support an emerging view in some watersheds that women SHGs could well be entrusted with larger development programmes including programmes with a technical content like watershed works. There is need in this debate to marry the requirements of democracy with programme imperatives and settle for what is practical and reasonable in the village context. In other words, the rational and the real have to be imaginatively melded.

Convergence of various programmes at the village is another issue, which is widely debated in development circles. I saw an excellent example in Orissa of a Block Development Officer achieving seemingly effortless convergence of all programmes in the watersheds, clearly through a well-coordinated effort. I feel that given a

necessary commitment on the part of implementers and implementing agencies, this can be achieved even at less imposing levels of hierarchy as in the example cited above. It is, however, clear to me that there is a strong case for making watershed the framework and umbrella for uniting all development programmes that are implemented in the village. It is high time this grand unification takes place, and all the moneys spent in the village by various departments are brought together under a unifying and integrated framework with suitable accountability to the gram sabha.

Apart from some of these hardcore issues underlying watershed programmes, one had occasion to see what was really happening on the ground, the clash of classes and interests. Take, for example, the issues stemming from dependence of small, marginal, and landless farmers on common property resources, such as fodder and water for meeting their grazing requirements. In Seva Mandir, Rajasthan, one saw the continuing and grim struggle that was going on to gain control over these resources under stiff opposition from the local bureaucracy. One saw the dilemma of the small livestock holder depending on these resources and yet being unable to access it given the obstructive and harassing ways of the revenue bureaucracy. It is time that policy makers address these issues. Some legislative initiatives, I gather, are underway in Karnataka for a clearer legislative articulation of issues governing the usage of what they call “common pool” resources. However, there is great need to educate users about their rights vis-à-vis natural resources, and enable them to understand the underlying administrative process and eventually move to a state of command and control of that process.

Yet another useful learning in this context was the meeting on livestock, environment, and development in watersheds, organized at the initiative of Dr Marcella D'Souza (WOTR). From this meeting one understood the implications of reduced access to common land resources (including forests and their environmental implications), the need to enable people to develop a greater stake in protecting and using them, the importance of giving rights to the poor, and giving them more space in decision-making relating to the whole question of access to common resources.

Some of the good practical examples of this approach were seen in Anantpur district in Andhra Pradesh, where the experience of Ananta Paryavarana Parirakshana Samiti on sustainable development of biomass in common lands is a significant one where enhanced livelihood opportunities for the poor have been ensured in collaboration and coordination with the forest department.

Another useful learning was from a visit to the DFID Livelihood Projects in Orissa. Several useful lessons could be absorbed beginning from targeting the poorest, participatory micro-planning approaches, livelihoods diversification and asset maintenance, equity in benefit sharing, capacity building, watershed selection criteria, and so on. Their strength appears to lie in their planning process and rigour in implementation having regard to various sensitivities that should be part of any development programme. The field visit to PRADAN watershed in West Bengal was equally instructive in terms of plantation work, addressing drinking water requirement, individual farm ponds for irrigation, etc. In Uttaranchal, one saw an imaginative handling of drinking water requirements with women groups leading the way. This was particularly interesting in view of the fact that drinking water droughts were a common feature in these areas even though they had adequate rainfall. The watershed programme in Uttaranchal is managed by a separate watershed development department. In this state a collective marketing of produce by CBOs (federation of SHGs) has been integrated as a part of the watershed

programme. Also at the village level Garima (habitation sabha) has managed the whole watershed programme. The Sarpanch played the role of patron under this EU funded programme. Based upon this experience, the World Bank is now upscaling the above institutional mechanism in the entire state. Under this approach, the panchayat shall receive the funds but will transfer it to a number of village-based watershed committees elected by village sabha under its jurisdiction (in this state, each gram panchayat has a number of revenue villages and hence as many village sabhas).

In Himachal Pradesh we saw excellent self-reliant development and management of drinking water system by women groups. This has happened essentially due to good support provided by People's Science Institute to the district administration in organising women's groups. This work was a part of the MoRD-funded watershed programme. In Haryana, communities were seen working in close association with the Forest Department to create irrigation facilities (after a dialogue lasting for more than a year) and innovative outsourcing of maintenance arrangements, which would take care of their sustainability after a check-dam was successfully built. In Punjab, one came across in the World Bank implemented projects an emphasis on restoring traditional water harvesting structures. In case of Punjab and Haryana, the programme was implemented essentially through adoption of indigenous innovations even in designing of the water harvesting structures. The farmers have paid contribution even for construction of community-oriented water harvesting structures. Also the entire responsibility for subsequent utilization of water resource as well as for repair and maintenance of the structure has been taken over by the users' group (which is a body separate from the gram panchayat). The concept of user's charges has now been institutionalised properly. The income from this is used for carrying out repair and maintenance of water harvesting structure besides meeting other community oriented needs.

Traveling swiftly down to Andhra Pradesh, the visit to Anantpur proved to be very useful. One saw an excellent initiative by the Forest Department for protection of reserve forests through community participation and policing. In another place, one saw interesting results from what could happen over a period of 30-40 years if the community agreed to a self-imposed ban to not enter a forest area and allow complete natural regeneration. The result was in stark contrast to what we saw in the neighbourhood where no such regulation was in place. The entire success of this experiment was attributable to a village leader who was backed up by the community and supplemented by a punitive system voluntarily enforced by the village elders for violation of rules and procedures. Interestingly, no one is allowed to carry a sickle into the naturally vegetating areas and fines are imposed in cases of violation. In the RDT donor-funded projects in Anantpur, one saw an excellent training institution which could be put to good use by state governments in this region.

This foreword would not be complete without a reference to the contentious issue of the Hariyali guidelines. Many implementation issues with reference to these guidelines were brought to our notice during discussions and field visits by state governments and project implementing agencies alike. Some states, notably Andhra Pradesh, have sought to overcome these difficulties by evolving state-specific process guidelines within the overall Hariyali guidelines and getting on with the implementation of programmes. A separate chapter (Chapter 4) has been devoted to the issue of guidelines that have now been reworked in the light of the main recommendations of this committee. We hope that this will resolve the much-debated issue of the Hariyali guidelines. We have

recognized that flexibility and adaptability need to be incorporated into these guidelines as situations and the context through the country differ widely and any implementation needs to accommodate this factor.

I could go on in this vein and narrate in greater detail all that I have managed to see and absorb but I have to draw a line somewhere! It remains for me to thank those who were instrumental in assisting me in finalizing this report, and in gaining an understanding of the many facets and dimensions of this important programme. I must thank Shri Anil Shah and the Development Support Centre, Ahmedabad for the excellent presentations by various resource-persons made at the Centre for the benefit of the Committee. Our grateful thanks to him, and to Prof. Khandwalla (formerly Professor at IIM, Ahmedabad) for researching and preparing a basic paper on the institutional design of watershed programme which was the starting point for the work in Chapter 3 of this report. Similarly, I owe a deep debt of gratitude to *Forum for Watershed Research and Policy Dialogue* for preparing an excellent set of papers for the Committee, and for bringing together the research initiatives bearing on this programme at a special meeting organized at Pune for this purpose. Likewise, DFID at our request prepared a set of papers containing an analysis and collation of lessons learnt from the DFID-supported watershed development projects in various states (notably through KAWAD, APRLP and WORLP), and capture the best practices thereof. Very useful information was also generated by their consultants on British institutional innovations in the area of public management. I am deeply grateful to them and in particular Dr Virinder Sharma, Livelihoods and Environment Adviser, DFID-India and their team, for arranging a one-day workshop at New Delhi on this subject.

To some of the NGOs I owe a similar debt of gratitude for educating me in the nuances of public participation and other such sensitive elements of watershed programmes. First and foremost I must mention Dr Crispino Lobo of WOTR, who enriched my understanding; Dr Marcella D'Souza for arranging a dialogue with Lead Advocacy Network on livestock issues, related to environment and development.

Shri Aloysius Fernandez of MYRADA, who is a distinguished Member of the Committee from the NGO community, took us on a visit to his watershed project in Karnataka, which showcases what a "Lead NGO" can do to handle programmes with a significant geographical spread, besides demonstrating the sustainability of partnership mode of working with diverse and challenging partners like the state government and donors. It is one project where the withdrawal from watershed at the conclusion of the project has been handled without hurting the community, by continuing post-watershed professional support. This must surely be a unique project in the country where radio stations operated by women are broadcasting useful messages to the rural community; it is rightly called a community resource center.

Also to Deep Joshi of PRADAN, Ravi Chopra of PSI, Dehradun, Dr. Y.V. Malla Reddy of RDT, and Neelima Khaitan of Seva Mandir – to mention a few among the many NGOs that I interacted with – I owe my enhanced understanding of this complex program.

I thank Dr. J. Venkateswarlu, ex-Director of CAZRI, for giving us written submissions on the unique challenges of the North-East as also the problems of cold/hot deserts, a subject on the fringe of the development debate. I thank Dr. N.K. Sanghi of WASSAN for helping me put together field visits to watersheds and not to miss out anything significant from what is happening in the country. In the many discussions and in the visits that he

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accompanied me, he shared his wide and critical understanding of this programme and thereby enriched my own learning.

I owe a debt of gratitude to the various state governments listed in Appendix III for their studied and learned response to the terms of reference of the Technical Committee and for having facilitated and coordinated our travel to various watershed projects in their jurisdiction. I have indeed learnt a great deal from these visits and discussions.

This report would not have been possible without the unstinted support given by Dr. Mihir Shah of Samaj Pragati Sahayog (SPS), who went far beyond his call as Honorary Advisor to the Committee, and willingly assumed onerous responsibility. He has managed to integrate into a flowing and limpid narrative a vast amount of information in the form of submissions and reports that I had gathered from my visits, the research insights gleaned from a decade or more of published academic outputs, besides drawing upon his own vast experience of running similar projects with disadvantaged sections of the tribal community in remote central India. He has synthesized the learning in a way that makes the report eminently readable, and at the same time ensures that it never falls short of requisite standards of erudition. I am sure this report will be used both by practitioners and the academic community with profit. I would like to thank Dr. Mihir Shah and his research team at SPS for an outcome that is characterized by a sense of balance and moderation considering the passions that this programme so easily provokes in many quarters. The report, at the same time, is shot through with a sense of deep commitment and urgency about what is required to be done by policy makers and implementers alike.

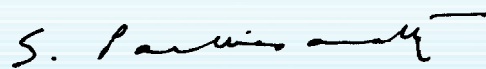
I must thank lastly the fellow Members of the Committee, the Member Secretary Shri Anoop Badhwa, and the Additional Secretary, MoRD, Shri V.S. Sampath for their continuous support and understanding. Thanks are also due to the National Institute of Rural Development, Hyderabad for undertaking the production of this report and to Ms. Sheila Vijayakumar for meticulous editing.

Dr. Raghuvansh Prasad Singh, Hon'ble Minister for Rural Development evinced keen interest in the report throughout our work and encouraged us to think out of the box, to provide a new direction to the watershed programme in India. I am grateful to him for his unstinting support.

I read in a foreword to a book recently something that aptly sums up my dilemma. The author says "Lists of thank yous are always dangerous since the risk of leaving someone important is a very real one." I would like to record an unreserved apology here if that is the case. Making a complete list would probably be hard both on the reader and my power of recall alike.

I would like to record my heartfelt thanks to the Ministry of Rural Development (Department of Land Resources) and in particular Shri M. Shankar, former Secretary (Rural Development) for entrusting me the rather awesome responsibility of chairing this important committee. It has been a vast education for me at this stage of my life when learning new things and gathering fresh insights is a rare happening. I hope that the outcome will benefit the vast number of rural communities engaged in a daily struggle for livelihoods throughout this country.

26 January 2006  
Hyderabad



**S. Parthasarathy**, IAS (Retd.)

Chairperson  
Technical Committee