

POVERTY REDUCTION THROUGH NATURAL RESOURCES REGENERATION :

The Indo-German Watershed Development Programme

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TABLE OF CONTENTS

1. ORIGINS OF THE IGWDP	3
2) ACTORS AND INSTITUTIONS IN IGWDP	5
A) At the Project Level	5
The Village Community (Watershed Dwellers) :	5
The Village Watershed Committee (VWC) :	5
B) Non Governmental Organisations (NGOs)	6
C) At the Programme level :	6
i) Funding support :	6
ii) Administrative and Organizational Support :	7
3) STATUS OF THE IGWDP.....	9
4) IMPACTS : WATERSHED DWELLERS SPEAK	11
? Increase in agriculture production and productivity :	11
? Increase in the Biomass :	11
? Labour availability and reduction in migration :	11
? Increase in school attendance :	12
? Greater social cohesion :.....	12
5) CONCLUSION.....	13

1. ORIGINS OF THE IGWDP

Nearly half the geographical area of Maharashtra, a western Indian state, is arid to semi-arid and is classified as drought-prone. Rainfall in this area ranges from 150-750 mm. There are 43,000 villages in Maharashtra and of these around 23,000 villages suffer from water scarcity, especially during summer months. With only around 17 %, of the arable lands irrigated, the State is heavily dependent on monsoons for agricultural activity. The State experiences drought every 3 to 5 years, critically affecting the agriculture and pushing people towards distressed migration. Maharashtra suffered a severe drought in 1972, which led to mass hunger and migration, which provoked a serious rethinking of development strategy and approach. Gradually it was realised that environmental and ecological regeneration on watershed lines could create a favourable condition for better agricultural production, stable livelihood sources and thus lead to poverty alleviation and reduction.

During the 1980's, a rethinking was going on among the international donor agencies about the efficacy of developmental aid in alleviating rural poverty in developing countries. On the German side, it was felt that official aid reached the 'poor' only in exceptional cases and wherever enterprising self-help groups decided to better their circumstances with some external assistance, they were able to improve their socio-economic conditions considerably in a relatively short time span. In order to better understand this aspect and reorient official assistance to reach these groups the Government of Germany (GOG) set up a special cell ES-21 (later called ES-31) under the Chairmanship of Mr. Karl Osmer and its work continued till 1987.

This effort led to the launching of Indo-German Pilot Project (IGPP) in India which involved the BMZ, KfW, GTZ, MISEREOR and DSE on the German side and the Ministry of Economic Affairs, NABARD, Govt. of Maharashtra, Social Centre, Indian Institute of Banking, IGSSS, Banking Institutions and NGOs on the Indian side. The main objective was how to reorient and streamline strategies and mechanisms so that developmental aid meets its objective and reaches the poor.

Maharashtra witnessed another severe drought in 1987, which brought many NGOs together at Aurangabad to discuss and formulate a strategy for drought proofing through watershed management with the active participation of the stakeholders. The NGOs, however, expressed the need for adequate finance, technical and managerial support as well as Govt. support to treat Forest and Revenue lands.

This approach was adopted because of the significant drought-proofing achieved by villages wherein such watershed development measures had been implemented, villages such as Adgaon (supported by MSSM – a voluntary agency in Aurangabad) and Pimpalgaon Waghera (supported by the Social Centre

– a voluntary agency at Ahmednagar) were beacons of hope in an otherwise despair-filled situation.

The link between these two parallel processes, on the German and Indian side respectively was provided by Fr. Hermann Bacher who has been in the development field in Maharashtra since the past 50 years. Due to his familiarity with the international as well as the local situation, he was able to catalyse the momentum and commitment created by these two processes into a movement that brought all the actors together in a symbiotic and synergistic relationship based on mutual trust. This was the of the Indo-German Watershed Development Programme, in 1989, which got operationalised fully towards the end of 1992. Fr. Bacher can thus be rightly called the “Father” of the IGWDP.

Fr. Hermann Bacher

The Indo-German Watershed Development Programme had its earliest beginnings more than 30 years ago. A young Swiss Jesuit - Fr. Hermann Bacher - saw the urgent needs of marginalised and small farmers in Ahmednagar district and responded creatively. The first step was to help these farmers grow in self-reliance to give them a sense of achievement and self-respect. For this, Fr. Bacher established a voluntary organisation, the Social Centre, and began enlisting the help of local as well as foreign funding institutions. More importantly, he got the cooperation and backing of Government developmental and financial institutions. The farmers were thus enabled to get loans for capital and working expenditure for agricultural activities. They were actively linked into the institutional framework of their locality. It was a participative strategy that built up partnerships, stakes and synergies.

The experience and weave of relationships built up during these many years laid the foundation of the IGWDP and enabled Fr. Bacher to respond creatively and in a focused manner to the articulated need for combating drought and pauperization. In order to enable varied and especially small NGOs and VSHGs to “qualify” to participate in the IGWDP he established the Watershed Organisation Trust (WOTR), with the mandate to develop in partnership capability enhancement dynamic, now called the POP (Participatory Operational Pedagogy).

In March 1994, more than 46 years after he first set foot in India, the German Government recognised Fr. Bacher’s services to the marginalised and his contribution to development cooperation between the Governments of Germany and India. He was awarded the Federal Cross of the Order of Merit, Germany’s highest civilian award. Later that year, the Government of Maharashtra honoured Fr. Bacher with its ‘Krishi Bushan’ (Agricultural Award) for sparking “a social revolution in the villages... and proving that all adversities can be overcome if only people come together to help themselves in a cooperative spirit” (quote from the Governor’s address, January 1995). In 1996, he was awarded the ‘Vanashree’ award for outstanding work in afforestation by the Government of Maharashtra.

2) ACTORS AND INSTITUTIONS IN IGWDP

The prime objective of the Programme is poverty eradication through people-managed environmental regeneration and resource mobilization along watershed lines. Participatory watershed management, being a socio-technical intervention, requires certain expertise, financial, governmental and other institutional support for its smooth and uninterrupted implementation. Even though the prime agents of this transformation are the watershed dwellers themselves, assisted by NGOs and other agencies, it is necessary to have an enabling policy framework at the macro level and adequate financial and technical support at the micro level. In the IGWDP this framework environment and support is provided by a number of actors and institutions at the local, national and international levels.

A) At the Project Level

The Village Community (Watershed Dwellers) :

They are the stakeholders and actual executors of the watershed development programme. At the project level they create the atmosphere conducive for project implementation through formation of social consensus, enforcing of the ban on free grazing and tree felling and through voluntary contribution of labour. As implementers, they provide the labour for work execution; as beneficiaries, they work out sharing and maintenance arrangements. Through the Gram Sabha (Village Assembly of adults, which is the ultimate democratic decision making institution at the village level) they perform the role of a watchdog, reviewing and seeking accountability from their nominated representatives.

The Village Watershed Committee (VWC) :

The VWC consists of persons nominated by consensus at a formal or informal Gram Sabha attended by adult members of the village, representing all socio-economic sections in the village, and also different geographical areas. This institution actually 'owns' the project and is responsible for the planning, implementation, monitoring and maintenance of the project on behalf of the Gram Sabha. The VWC usually consists of 7-15 members. Landless, marginal farmers and women are given special representation on the principle of positive discrimination. Its task is to organise and sustain the effort at environmental regeneration in a manner that benefits all and is functionally transparent and open to public scrutiny, so as to ensure amicable and objective conflict management and resolution. Using the approach of Portfolio Management, subgroups have been formed in the VWC with clear responsibilities (portfolios) with regard to project management, such as mobilizing villagers for voluntary labour, social fencing, arbitration, judicious utilization of regenerated resources etc.

B) Non Governmental Organisations (NGOs)

Another major actor in actual project implementation in the IGWDP is the NGO. The NGO works as catalyst for village SHGs (VSHGs) to undertake participatory watershed development activities. Through the project staff who have or acquire competence in technical, social and gender issues, the NGO undertakes motivation and awareness, organises and involves the village community in preparing and implementing participatory watershed activities. The NGO shares in the responsibility of the VWC for project preparation and implementation, in enforcing social ban, arbitration and conflict resolution, community participation, receipt and management of funds and being accountable for the same. The NGO withdraws from the project village on the completion of the project activities, assisting the VWCs during the implementation to become the actual project owners and maintainers of the assets created.

C) At the Programme level :

i) Funding support :

Watershed development requires substantial funds, since it involves a number of measures to control soil erosion, biomass development (through plantation and grass cultivation) and drainage line treatments to control and store excess runoff. An assured and uninterrupted fund flow is necessary for a large-scale watershed development programme. In the IGWDP, funding support is provided by two German premier financial institutions through a bilateral cooperation.

- **The KfW :** The German Bank for Reconstruction and Development is the German government's premier institution in the field of developmental financial cooperation. It provides financial assistance for all the hardware components of the Programme, such as afforestation, biomass development, soil conservation, water harvesting structures, women's development and the NGO overhead expenditure during the Full Implementation Phase. At present, the contribution is to the tune of DM 37 million by way of grant routed through NABARD.
- **The GTZ :** The German Agency for Technical Cooperation extends financial support for capacity building and human resource development of NGOs and VSHGs in the IGWDP. At present its total contribution is around DM 5 million by way of grants routed through the Watershed Organisation Trust (WOTR).

ii) Administrative and Organizational Support :

- **NABARD** : The National Bank for Agriculture and Rural Development is India's apex bank in the area of rural and agricultural refinance for credit operations. NABARD is the legal project holder of the KfW funds and administers the large-scale Full Implementation Phase (FIP) of the Programme.
- **WOTR** : The Watershed Organisation Trust (WOTR), is an NGO that has been set-up to service the Programme and is presently as the institutional base of the Programme Coordinator of the IGWDP. Its mandate is to identify potential project implementers (NGOs and VSHGs), build up their technical, social and managerial capabilities to successfully undertake watershed development activities and link them with the local developmental network, both public and governmental. WOTR is the legal project holder of the Gtz funds and administers the Capacity Building Phase (CBP) of the Programme.
- **PSSC** : The Project Sanctioning and Steering Committee, a State level body, determines policies related to the IGWDP, sanctions projects, oversees and supervises both the CBP and FIP of the IGWDP. This Committee is chaired by NABARD and comprises of four representatives of NGOs, the Programme Coordinator, one representative of WOTR, three representatives of the Govt. of Maharashtra (Secretaries of the Departments of Forest, Agriculture and Rural Development), a representative of the Ministry of Agriculture, Government of India and special invitees, if any.

iii) Operational Structure :

The IGWDP today consists of 2 phases : the CBP and FIP. The CBP came into the Programme only in 1993, when it was realised that many NGOs and VSHGs were willing to undertake participatory watershed development programme, but were ill-equipped to undertake such a large-scale project. They were lacking the necessary conceptual, technical, social and managerial capabilities, and the building up these capacities was of prime importance for a large-scale spread of the Programme. With the above in mind, it was felt that a capacity building programme for NGOs and VSHGs was necessary, and the same was developed by WOTR in consultation with NABARD and some NGOs, especially the Social Centre.

During the Capacity Building Phase, the NGOs and VSHGs undergo an orientation and induction through exposures, structured and on-field trainings. The idea is to improve the technical, social and managerial knowledge and skills of the actors to implement and manage a community-driven watershed management project. This induction and orientation is done through an approach and strategy called the Participatory Operational Pedagogy (POP).

The crucial component is the 'learning-by-doing' aspect wherein watershed work is actually undertaken in a micro-watershed of not more than 200 ha. Different treatments are undertaken in this area which provides both as a learning platform and a demonstration site. The Capacity Building Phase is of a duration of 12 to 18 months, during which, through actual planning and implementation, the VWC and NGO, supported by WOTR, acquire the necessary planning, implementation and management skills. Exposure visits to successful watersheds (watershed-dweller-to-watershed-dweller extension) are organised besides on-field and classroom trainings.

WOTR, through its Regional Resource Centres, (there are 5 Regional Resource Centres and 5 Sub-Regional Centres), organises and provides input for these trainings, exposures and physical implementation. Workshops, fairs and gatherings are also organised for a cluster of watersheds for information exchange and mutual learnings. Women's groups are organised in the villages for savings and credit, socio-developmental and income generation activities. Trainings, exposures and Mahila Melawas (women's fairs/gatherings) are also organised. A gender-oriented POP has also been developed to facilitate better gender relationships and enable women to integrate better into village affairs, especially in the local decision making bodies (VWC, FPC etc.) of the watershed project. Participatory Net Planning (PNP), which is a landuse planning method, has been developed to enable the farmers (husband and wife, ideally) to choose the best option in land husbandry.

The CBP involves 3 to 4 months of physical work; one plantation season and one rainy season. Due to soil conservation activities and plantation, the impact can be immediately observed in terms of increased water level in the wells, survival and vigour of plant growth and increased fodder primarily due to natural regeneration resulting from the ban on free grazing. This is evidenced in almost all the project villages, even though the rainfall was scanty in some areas. This impact helps to convince even the sceptics in the villages.

Once the project and the implementing actors meet the minimum expected qualifications and criteria they are expected to acquire during the CBP, the project may then move to a large-scale Full Implementation Phase.

Only those NGOs and VSHGs who have successfully undergone the learning process in the CBP or have proved their capability to undertake watershed development are selected for the FIP. The FIP lasts for a period of 4-5 years and all the treatable area (based on the ridge-to-valley principle) is covered during this phase. NABARD disburses the fund to an account jointly operated by the NGO and VWC and does regular monitoring. Besides, some monitoring as well as coordination activities are done by WOTR.

3) STATUS OF THE IGWDP

- Today, the IGWDP is a State-wide Programme implemented through NGOs and VSHGs. There are 99 projects under implementation in 47 talukas (Administrative Blocks) in 19 districts of Maharashtra covering a gross area of 119,500 hectares and increasing. This involves around 150 villages, benefiting a population above 100,000, the majority of these being marginal farmers, tribals and women. There are 63 NGOs involved in this Programme. WOTR has directly assisted in the Capacity Building activities of 79 projects and 51 NGOs, who required social organisation support, managerial and technical assistance. Besides this, it has prepared 30 feasibility studies and assisted in the preparation of 34 feasibility study reports.
- **Training Support :** Training is an essential component in enhancing the capabilities of NGOs and VSHGs. Trainings are envisaged to enhance the technical, social and managerial capabilities, with considerable practical inputs. WOTR has developed the content and curriculum of the trainings, keeping in mind the practical needs of the actors, such as the watershed community, VWC, womens groups and NGOs. Till date WOTR has conducted a total of 525 training programmes involving 22,698 participants. These include on-field, 'hands-on' and structured classroom trainings, workshops and experience sharing, gatherings/fairs, exposure in terms of farmer-to-farmer extension, savings and credit management trainings, etc. Of these 197 trainings /exposures, gatherings and fairs were organised regarding gender and women's promotion (upto April 1999), in which 11,728 women and some men participated. Besides, training aids in the form of a flip chart, video films, slides, training manuals, booklets and monthly wall newsletters written by watershed dwellers have been produced.
- **Women's activities :** Sustainable development is not possible without the active involvement of women. Any intervention in natural resource regeneration and management in rural areas has to take into consideration the concerns of women, since the regenerated resources respond to their immediate household needs such as water, fuel, fodder and food. Hence the involvement of women in natural resource management requires targeted intervention. Realising this, a separate wing for gender and women's promotion was established in Sept. 1995 to enhance the socio economic well being of women and promote their active participation in community / civil society affairs. This effort has to date made a significant contribution in this direction.

At present there are 426 active savings and credit groups in watershed villages involving 5286 women having a collective savings of Rs.2,501,985/- . 215 groups have been linked with banks. There are 186 socio-developmental projects in the fields of hygiene, biogas, improved

cooking devices, non-formal and adult education, kitchen gardens, crèches, etc., involving and benefiting a total number of 5129 women. Besides this there are 40 income generation projects (dairy, floriculture, poultry, nursery raising, fertilizer shop, threshing machines etc.) managed by and benefiting 1030 women.

- **Direct Implementation** : In order to constantly test concepts with ground realities, develop benchmarks and best practices as well as to improve the competency of its own staff, WOTR directly implements large-scale watershed projects which become training fora for in-house staff and other NGOs and VSHGs. At present, WOTR is implementing 11 watershed covering an area of over 11,000 ha.
- **Information support** : WOTR has developed different software for land use planning, management information systems and other data collection and processing mechanisms which provide timely information required for programme management as well as assisting the NGOs in their planning and participation in the IGWDP. Geographical Information Systems (GIS) is also being adapted for planning and monitoring of participatory watershed development.
- **Advocacy Support and Linkage Building** : At programme and policy levels a number of Government Resolutions and enabling orders have been issued by Central/State Governments especially with respect to Joint Management of Forests by watershed communities and providing the various Government developmental activities to the concerned villages. These were possible due to the combined efforts of WOTR, NABARD and the State Government. Besides this, the project villages are linked with the local development networks of Government departments, commercial banks and other private and public institutions.



4) IMPACTS : WATERSHED DWELLERS SPEAK

- *Increase in agriculture production and productivity :*

Poverty alleviation through natural resource regeneration and management is the primary objective of IGWDP. Soil and water conservation work improves the soil moisture regime and increases the water level in the wells which helps the farmers in cultivating at least 2 crops (kharif and rabi) and in certain cases even a third crop in summer months.

In the words, of Shevantabai Thakre, a tribal women farmer from Mandva village – “In our field we now grow jowar (sorghum), gram, pulses and cotton and we have even changed our cropping pattern and cultivate wheat and soyabean. We have a well for which we took a loan from the bank. I have the necessary farm implements and bought an ox for Rs. 8,000/- with the earnings from the watershed work.”

Another tribal farmer, who lost his parents at an early age, Pandu Vikya Pawar from Talavali watershed says “Before watershed activities, we only grew rice, which was not sufficient for us. Now we are cultivating tur (pigeon pea) and vegetables and even the rice production has increased due to the farm bunds constructed in our land. I also planted some subabul and teak (which are not yet mature) to earn some money.”

- *Increase in the Biomass :*

Biomass regeneration is another visible impact. On an average, above 100,000 saplings and improved grass varieties are planted in a watershed. Natural regeneration of grasses and shrubs is also quite good due to ban on free grazing. The watershed committee of Dongaon village in Nanded district earned around Rs. 114,000 (contributed towards the Maintenance Fund) from the sale of grass, after meeting the fodder requirements of all households. The fodder increase is in the range of 50% to 400 % in most of the project villages. In Darewadi, which receives a very scanty rainfall, over 250,000 saplings were planted with a survival rate of above 90%.

Madhav Lahange, chairperson of Talavali VWC says, “Because of plantation in the wastelands our income has gone up. Earlier cattle used to graze on this land and there was hardly any grass. The villagers collectively decided that the cattle should not be grazed in the wasteland, and now we get good income from the grass harvested from there.”

- *Labour availability and reduction in migration :*

Distress migration to resource endowed areas was a regular phenomenon in most of the project villages. Watershed work provided regular labour opportunities for the villagers and on an average 70 to 80% of the project expenditure goes as labour to the watershed dwellers.

In the words of Vishwanath Bhagat, a farmer from Chincholi watershed, “In the beginning, people were bit sceptical about the work. However, once the work started and people started getting Rs. 60–70 a day as wages, they became very enthusiastic. While the work was in progress we had a drought. Earlier, during such times, the villagers would sell off all their livestock and migrate in search of work, but this time they started getting work within the village. A family could earn upto Rs. 1,000 a week.”

Manohar Chimaji Maid, a marginal farmer from Darewadi has this to say, “Earlier, me and my two sons used to migrate for a few months for sugarcane cutting. Now we do not go out. Two of my sons and their wives work in the watershed. Lots of people from our village who used to migrate for months now find work within the village. In my view this is the biggest advantage from the watershed.”

- ***Increase in school attendance :***

Since migration has reduced, the number of school going children has increased. Earlier they would accompany their parents when they migrated or were left back in the village without anybody to supervise them. Moreover, they were sent to tend the cattle to augment the family income. In Talwali village, the number of school going children has increased from 20 to 200; besides 160 children are studying in government run tribal boarding schools.

- ***Greater social cohesion :***

Social life in the village has also become more healthy and unified. Women have their savings and credit groups, which provide small loans for day-to-day needs. Local institutions are getting consolidated and people are playing an active role in the development of their own villages.

5) CONCLUSION

Participatory watershed development has established itself as a proven way of ensuring drought mitigation and poverty reduction in resource-depleted, semi-arid regions. Since it touches the livelihood base of all those living within that environment, it becomes a forum which brings together disparate user groups into discussions and negotiations. This process of consensus building, conflict resolution and benefit allocation sets into motion an interactive dynamic of intense involvement of all groups, especially hitherto marginalised ones, in the management of village affairs and resources, particularly commonly used assets. It is this confluence of interests and resources that lights the spark of development, both for the individual and his community and helps realise the benefits of “democracy at the grassroots”, the essence of Panchayati Raj.

Visit of the German Ambassador to the IGWDP :

The German Ambassador to India, His Excellency Dr. Heinrich-Dietrich Dieckmann, accompanied by his wife, visited the Indo-German Watershed Development Programme (IGWDP) on the 21st of July 1999. He specifically saw the Kalamkarwadi watershed project that has been implemented by the Village Watershed Committee and supported by the Social Centre under the IGWDP. Dr. Goel, the Commissioner, Agriculture, Government of Maharashtra (GOM), Mr. Mahalle, Director, Soil Conservation and Watershed Management (GOM), Mr. Wankhede, Soil Conservation and Watershed Management (GOM) and Mr. Ganpati Rao, General Manager, NABARD, accompanied him. Mr. Crispino Lobo, Programme Coordinator, IGWDP, and the staff of WOTR guided them through the visit. It was a very fruitful visit as the Ambassador particularly remarked upon the extent of people's involvement as well as their identification with the project. He also appreciated the close collaboration between the various institutional partners from the State level to the village level.

----XXX----

