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BPR-003
Panchayati Raj Institutions and Anti-Poverty Programmes

Area Based and Other Related Programmes

3

"शिक्षा मानव को बन्धनों से मुक्त करती है और आज के युग में तो यह लोकतंत्र की भावना का आधार भी है। जन्म तथा अन्य कारणों से उत्पन्न जाति एवं वर्गगत विषमताओं को दूर करते हुए मनुष्य को इन सबसे ऊपर उठाती है।"

–इन्दिरा गांधी



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"Education is a liberating force, and in our age it is also a democratising force, cutting across the barriers of caste and class, smoothing out inequalities imposed by birth and other circumstances."

-Indira Gandhi

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Block

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AREA BASED AND OTHER RELATED PROGRAMMES

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BLOCK 3 AREA BASED AND OTHER RELATED PROGRAMMES

Block Introduction

The course (3) on "Panchayati Raj Institutions and Anti Poverty Programme" comprises of three blocks. The first block is related to the "Programmes for Self-Wage Employment and Rural Housing". The second block is about the "Other Development Programmes and the third block deals with the "Area Based and Other Related Programmes".

We have discussed about the first two blocks separately. Now we will learn about the third block which deals with the "Area Based and Other Related Programmes.

The block of "Area Based and Other Related Programmes" consists of three units. These are: (1) Drought Prone Area Programme (DPAP) & Desert Development Programme (DDP), (2) Rural sanitation, and (3) Wasteland Development and Social Forestry. The **first unit** of this block deals with programmes related to the "drought prone areas". The basic objective of this programme is to minimise the adverse effects of drought on production of crops and livestock and productivity of land, water and human resources ultimately leading to drought proofing of the affected areas. It also aims to promote overall economic development and improving the socio-economic conditions of the resource poor and disadvantaged sections of the society, inhabiting in the programme areas. The **second unit** is related to the problem of "rural sanitation". Rural Sanitation Programme envisages promoting "Environmental Sanitation" as a package aiming to address the issues to reduce the probability of people's exposure to diseases and providing hygienic environment and taking measures to break the cycle of diseases by improved management of human, animal and domestic wastes. The Centrally sponsored Rural Sanitation Programme (CRSP) strives to provide sanitation facilities to the rural populations, generate awareness about use of toilets and safe sanitation by providing individual household latrine, women complex, school sanitation and garbage disposal system. The **third** and last **unit** of this block is concentrated on the issues pertaining to the "Wasteland Development and Social Forestry". The Watershed approach has conventionally aimed at treating degraded lands with the help of low cost and locally accessed technologies such as in-situ soil and moisture conservation measures, afforestation etc. It has adopted a participatory approach that seeks to secure close involvement of the user-communities. The broad objective was the promotion of the overall economic development and improvement of the socio-economic conditions of the resource poor sections of people inhabiting the programme areas. Another issue is related to Social Forestry. Plantation forestry has been emerging as a strong attraction to the traditional forestry practice due to its acceptability and productivity improvement. After enunciation of national forest policy, 1988, plantation forestry has been encouraged to generate raw materials for domestic as well as industrial needs. This has accelerated the promotion of social, farm and agro-forestry programmes in the wastelands and other marginal farmlands of the country. All these activities warrant a reference material with a compilation of various social and agro-forestry programmes coupled with need based management system to create awareness on forestry related activities.

Social forestry also aims at raising plantations by the common man so as to meet the growing demand for timber, fuel wood, fodder, etc, thereby reducing the pressure on the traditional forest area. This concept of village forests to meet the needs of the rural people is not new. It has existed through the centuries all over the country but it was now given a new character. We hope that you will enjoy going through this block.

UNIT 1 DROUGHT PRONE AREAS PROGRAMME (DPAP) & DESERT DEVELOPMENT PROGRAMME (DDP)

Structure

1.0 OBJECTIVES

On completing this unit, you should be able to:

- state the main objectives of the Drought Prone Areas programme (DPAP) and the Desert Development Programme (DDP);
- describe the importance of watershed approach in DDP and DPAP;
- analyse the strengths and weaknesses of these programmes; and
- explain the ways and means of improving people's participation in th se programmes.

1.1 INTRODUCTION

Sizable proportion of the total land area of the country falls under arid, semi-arid or/and dry sub-humid categories and is either subject to desertification or identified as drought prone dependent on dry land agriculture. A *drought* is a long period of dry weather caused by a shortfall in the usual rainfall in a given time period of more than a certain percentage, usually 50% in the sowing season. A drought prone area is characterized by continuous degradation of land, depleting water resources, decreasing productivity of crops, livestock and human resources, hunger and malnutrition and out-migration of both human and cattle populations in times of distress. Most of our arid land mass falls in the desert category and due to very low rainfall, low productivity and extreme climatic conditions is also subject to frequent droughts.

For the overall development of land, water and other natural resources, there are many programmes under implementation in our country. In this unit, we are going to discuss two of these important area development programmes, namely the Drought Prone Areas Programme (DPAP) and the Desert Development Programme (DDP).

1.2 AIMS AND OBJECTIVES OF DPAP AND DDP

The DPAP and the DDP aim at restoring the ecological balance through soil and moisture conservation measures on watershed basis. In the present framework, these 'area development programmes' aim at involving village communities more meaningfully in planning, implementation and the management of the economic development activities within watershed projects in rural areas through the Panchayati Raj Institutions (PRIs). The objectives of DPAP and DDP are:

i) Developing wastelands/degraded lands, drought-prone and desert areas on watershed basis, keeping in view the capability of land, site-conditions and local needs.

ii) Promoting the overall economic development and improving the socio-economic conditions of the resource poor and disadvantaged sections of the society.

iii) Mitigating the adverse effects of extreme climatic conditions such as drought and desertification on crops and human and livestock populations for the overall improvement.

iv) Restoring ecological balance by harnessing, conserving and developing natural resource base, i.e. land, water and vegetative cover.

v) Encouraging village, the community for active participation in the planning and implementation of developmental projects and the sustainable maintenance of the assets created through their collective wisdom and indigenous technology.

1.3 NEED FOR DPAP

Over the years, the increase in human and livestock populations in the drought prone and desert areas had reduced the natural resources of certain very arid areas under relatively greater stress. The major problems included continuous depletion of vegetative cover, increase in soil erosion and fall in ground water table. All these factors amounted to spirally diminishing productivity of land and loss of natural resources. The situation would have been worse had some highly focused area-specific development programmes not been started in these regions.

The mid-term appraisal of the Fourth Five Year Plan re-designated the RWP (Rural Works Programme) as the Drought Prone Areas Programme (DPAP) launched in 1973-74 to tackle the special problems faced by those areas that were constantly affected by severe drought conditions.

1.4 EVOLUTION OF DPAP AND DDP

1.4.1 DPAP

The first systematic effort to tackle the problem of drought and desertification started during the Second and the Third Five Year Plans. The problem of drought-affected areas was mainly addressed through Dry Farming projects, spread over a few areas, with emphasis on moisture and water conservation measures.

The origin of DPAP may be traced to the Rural Works Programme (RWP) that was launched in 1970-71 to create assets designed to reduce the severity of drought in the affected areas. For this, the programme entailed long-term strategy in the context of conditions and the potential of the drought prone districts. RWP identified 54 districts, along with parts of another 18 districts contiguous thereto, as drought prone for its purposes. The programme initiated labour-intensive schemes, viz. medium and minor irrigation, road construction, soil conservation, and afforestation measures, which then covered 12% of the country's population and about 20% of geographical area.

During the Fifth Plan (1974-75 to 1978-79), DPAP followed the strategy and approach of 'integrated area development' as envisaged by the Task Force constituted by the Planning Commission in 1971 under the Chairmanship of *Dr. B. S. Minhas,* then Member Planning Commission. The Task Force had recommended that the programme should aim at:

- integrated development of agriculture with focus on conservation, development and utilization of land, water, livestock and human resources in the optimum manner, and
- providing more stable income and employment to the weaker sections of the rural society.

1.4.2 DDP

On the recommendations of the National Commission on Agriculture, in its Interim Report (1974), the hot desert areas were identified for the implementation of a programme comprising afforestation and livestock development. As for the cold desert areas of Jammu & Kashmir and Himachal Pradesh, the National Commission (in its Final Report, 1976) recommended that their specific problems should be studied in depth.

The above recommendations lead to the Desert Development Programme (DDP) in the year 1977-78. DDP programme was implemented on sectoral basis to develop poor areas in the long-term. It was launched in both the *hot-desert areas* of Rajasthan, Gujarat and Haryana, and the *cold-desert areas* of Jammu & Kashmir and Himachal Pradesh.

Till 1994-95, DPAP and DDP were implemented in the *programme states* in a segmented and isolated manner and watershed as a unit of area *development* was completely lost sight of. The sectoral autonomy leading to over-centralization in the process of making decisions, giving sanctions and administrative control completely diluted the Integrated Watershed Development as the key to the restoration of ecological balance. Investments under these programmes as well as those for other drought-desert mitigation measures were liberally used for sectoral

activities, such as soil conservation, minor irrigation, ground water exploitation, social forestry, sericulture, horticulture, etc. without paying any attention to the integration and comprehensive development of land and water resources. Within each sector, separate allocations were made for each activity to be undertaken in the programme area. Isolated implementation of wide ranging sectoral activities over widely disjointed areas of very small sizes failed to bring about any noticeable impact and the programme objectives were remained unfulfilled.

1.5 REVISION OF DPAP AND DDP

The implementation of DPAP and DDP, effected in a fragmented manner by different line departments through rigid guidelines and without well designed plans, did not bring about the desired achievements. The programmes could not attend to people's concerns, as the participation and involvement of the local inhabitants was missing. The 5.7 million hectares of area treated during the period, under DPAP constituted only 10% of the total area to be covered. The area treated under DDP was 0.51 million hectares that accounted merely 1% of the total programme coverage. This necessitated revamping of the strategy for the implementation of these programmes.

Accordingly, a High Level Technical Committee was constituted under the Chairmanship of *Prof. C.H. Hanumantharao,* then Member Planning Commission. The Committee reviewed the programmes comprehensively and subscribed to its approach on all aspects, viz. Programmes Strategy, Planning and Implementation, People's Participation, Programme Contents, Monitoring & Evaluation, Integration with related Programmes, Research & Training and Administrative Setup. The Committee, however, re-identified the blocks for treatment under DPAP and DDP by adopting more methodical and scientific criteria.

In addition to suggesting the criteria for watershed development to the Government, the *Hanumantha Rao Committee* also worked to identify coverage under DPAP and DDP.

Accordingly, the Department of Land Resources in the Ministry of Rural Development, that *inter alia* administers DPAP and DDP, formulated the *Guidelines* for *Watershed Development* for implementing these programmes in the project mode with effect from 1995-96. The Guidelines were reviewed in the year 2001 to develop a contemporary outlook and a more practicable approach; an objective realized six years after the original Guidelines were framed. The role of Panchayati Raj Institutions (PRIs) in watershed development programmes got specified to a limited extent in the Revised Guidelines-2001. Since the Ministry of Rural Development has been committed to strengthen Panchayati Raj, its policy of devolution of powers to PRIs by the States in consonance with the 73rd constitutional amendment, motivated the framing of *Hariyali Guidelines* to further the active role of PRIs in the watershed programmes. The revised *Hariyali Guidelines* were applicable to DPAP and DDP with effect from April 1, 2003. The basic framework in all these Guidelines, however, is based on the recommendations of the High Level Technical Committee and the current objectives and strategy of DPAP and DDP owe much to them.

Then there is Integrated Wastelands Development Programme (IWDP) which had been under implementation since 1989-90. The IWDP envisages development of all the non-forest wastelands in the country. Its consolidation with DPAP and DDP has recently taken place. We will discuss IWDP under Unit-3 of this block on 'Wasteland Development and Social Forestry'.

Check Your Progress I

Note: *a) Space is given below for your answers.*

b) Check your answers with the possible answers given at the end of this unit.

1) What are the objectives of DPAP and DDP?

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2) Identify four major recommendations made by the High Level Technical Committee that reviewed DPAP and DDP.

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1.6 COVERAGE UNDER DPAP AND DDP

As identified by the Technical Committee, DPAP has a coverage of 74.6 million hectares spread over 195 Blocks in 16 States namely, Andhra Pradesh, Bihar, Chattisgarh, Gujarat, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharastra, Orissa, Tamil Nadu, Rajasthan, Uttaranchal, Uttar Pradesh and West Bengal. DDP is being implemented in 235 Blocks across 7 States with the treatment coverage of 45.8 million hectares. These included Andhra Pradesh, Gujarat, Haryana, Karnataka, Rajasthan (all hot-desert areas), and Himachal Pradesh and Jammu and Kashmir (cold-desert areas). Three biggest States under DPAP coverage are Maharashtra, Andhra Pradesh and Karnataka with an area of 19.4 million hectares, 9.9 million hectares and 8.4 million hectares respectively. Under DDP, Rajasthan is the biggest recipient of the central funds for having the maximum coverage of 19.8 million hectares. Jammu & Kashmir and Gujarat follow with DDP coverage of 9.6 million hectares and 5.5 million hectares respectively.

Criteria for Identifying the Areas to be covered under the Programmes

The Committee adopted scientific criteria based on parameters of precipitation, percentage of irrigated area, evapo-transpiration, etc. to estimate the Moisture Index for a block that forms the basic unit of DPAP & DDP coverage.

While the Committee considered rainfall and percentage irrigation as only the broad indicators, the Moisture Index actually determined the dryness or aridity of the blocks and categorized them under different Climatic Zones to qualify them for treatment either under DPAP or DDP as shown below:

Moisture Index (M1)	Climatic Zone	% Irrigated Area	Permissible Programme
<-66.7	Arid	<30%	DDP
-66.6 to - 33.3	Semi-arid	<20%	DPAP
-32.3 to 0	Dry Sub-humid	<1%	DPAP

The Committee classified the desert and drought-prone areas into three eco-systems, viz. arid, semi-arid and dry sub-humid and recommended DDP for blocks under arid and DPAP for blocks under semi-arid and dry sub-humid zones. It also prescribed that the arid and semi-arid blocks having respectively more than 30% and 20% of their net cultivated area under irrigation are not to be included in DDP/DPAP. In the dry sub-humid ecosystem, the blocks having up to 5% of cultivated area under irrigation is to be included in DPAP coverage.

In addition, the Committee recommended the inclusion of such non semi-arid and dry sub-humid blocks where the percentage of irrigated area was <10% of the total cultivated area and/or resource degradation was due to high slopes. Accordingly, some blocks of Bastar (Chhattisgarh), Srikakulam (A.P.) and Almora, Pithoragarh, Tehri Garwal and Pauri Garwal (Uttrakhand) also fell under DPAP coverage.

The Committee also included some fringe blocks adjoining DDP blocks for preventive treatment to protect them from desertification.

Later on cold desert areas of Himachal Pradesh and Jammu & Kashmir were also brought into the fold of DDP coverage.

Check Your Progress II

Note: a) *Space is given below for your answers.*

b) *Check your answers with the possible answers given at the end of this unit.*

1) List three important characteristics of a good Work Plan.

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2) Define the terms: Drought, Watershed and Moisture Index.

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1.7 ACTIVITIES UNDER DPAP AND DDP

The DDP emphasizes on activities based on the methodology of low-cost and locally accessible technology. Accordingly, *Land Development* including *in-situ* soil and moisture conservation measures, *Water Resource Development* to increase land productivity, *Afforestation* for biomass production and Sand *Dune Stabilization* and *Pasture Development* to support livestock population are the broad categories of activities taken under the programme.

1.8 WATERSHED APPROACH

A watershed is defined as a *geo-hydrological unit draining into a common point.* The *in-situ* soil-moisture conservation, water harvesting, afforestation, etc. are thus ensured by the treatment of degraded watershed with ridge to valley approach.

DPAP and DDP are Project based, where the unit of development/treatment is a watershed area of about 500 hectares. Watershed Development under these Guidelines can be considered to have two components, namely a) Resource Inventorisation and b) Action Plan.

1.8.1 Preparation of Resource Inventories

Preparation of *resource inventories* is a key to the identification of area specific problems and also to the application of viable solutions.

Participatory Rural Appraisal (PRA) does this exercise at a micro-watershed level. This method helps the local inhabitants in knowing about the qualitative aspects of the resource situation in the village/watershed and also in identifying the hot spot situations. The thematic maps for different resource themes, such as land cover, soil, land use, water regime, etc. on their superimposition, give a complete profile of the watershed and a strategy for its treatment is set out. Some states have codified watersheds/micro-watersheds, based on the satellite generated thematic maps, for proper utilization.

1.8.2 Criteria for the Selection of Watersheds

The following criteria are adopted in the process of selecting watersheds for treatment:

- The 500 hectares of a watershed area can be in one patch or else can comprise contiguous watersheds of smaller areas. A watershed should preferably coincide a village.
- Watersheds with a preponderance of community lands. They may, however, encompass private lands and degraded forests as well to some extent.
- Watersheds having acute shortage of drinking water.
- Watersheds inhabited by large populations of scheduled castes/tribes who depend on its natural resources.
- Watersheds where actual wages are sizably lower than the minimum wages.
- Watersheds/Villages where people's participation is assured in planning, implementation and maintenance of assets.
- A watershed contiguous to an already treated watershed.

1.9 STRETAGIC METHODOLOGY

The first Guidelines for Watershed Development were framed in 1995, and they were revised in the year 2001 to accommodate suitable provisions for addressing the real field situations and thereby making the implementation of programmes more objective and effective. Later, the Guidelines were further revised on April 1, 2003 under *Hariyali Guidelines* with the intention of devolving more powers and assigning key roles to Panchayati Raj Institutions (PRIs) in Watershed Development Programmes.

- The strategy for *Planning and Implementation* adopted in the Guidelines for Watershed Development issued by the Ministry of Rural Development for various programmes of the Ministry, such as DPAP, DDP, IWDP, EAS, etc. is considered to be the most balanced approach addressing the productivity, equity and environmental concerns while achieving integration, convergence and participation. It makes radical departure from the erstwhile departmental procedures through a process of intensive *delivery mechanisms of Community*

Participation, Community Empowerment and capacity building. The new implementation methodology adopts well-defined and effective mechanisms of Monitoring and Evaluating the watershed projects.

People's Participation: Village Institutions

The essence of watershed programmes is to facilitate involvement of the local community and to organize it to participate in the process of planning and implementation, maintenance of assets and usufruct sharing in order to institutionalize these programmes to ensure self sustained effort by the community for economic development.

Self-Help Groups

These are homogenous groups of non-landholders who are dependent on the watershed ecology and economy such as agriculture labourers, shepherds, women, SCs/STs, etc. These groups are encouraged to adopt alternative resources of livelihood with the cash loans provided from the revolving fund created under the projects. Separate Self-Help Groups are organized for women, SCs and STs.

User Groups

The role of User Groups is critical to the watershed development programme because the user groups are the backbone of participatory planning and participatory implementation. These are homogenous groups who may be the most influenced, benefited or otherwise by the watershed activities and include the landholders.

1.10 REVIEW AND CO-ORDINATION

The implementation of projects is reviewed and coordinated under a three-tier system at the District, State and Central Levels.

District Watershed Development Committee headed by the Chairman, ZP/DRDA, with officials of various line departments associated with the implementation of projects, and some non officials as members including women, ensures coordination at the district level. The Committee advises and assists the ZPs/DRDAs on the selection of PIAs, constitution of Watershed Development Teams, training, formation of SHGs and UGs, promotion of public awareness, etc. The Committee also approves the detailed work plans for watershed projects in the district. The policy issues, if any, are referred by it to the State/Union Government.

At the State level, co-ordination among various Government Departments, Institutions and Non-Governmental Organizations is effected by a *State Watershed Development Committee* The State Committee monitors, reviews and evaluates the implementation of DPAP and DDP.

At the Central level, the programmes are coordinated through periodical review meetings. In these meetings, the progress of programme implementation is reviewed and also the decisions on policy issues are taken.

1.11 TRAINING

Watershed Development Programmes have adopted the approach of people's involvement and community empowerment in participation with the Government Departments, NGOs, etc. At the functional level, SHGs, UGs, Members of WCs, WDTs, Officials of ZPs/DRDAs and now under **Hariyali** arrangement, the Gram Sabhas/Gram Panchayats/Block & Zila Panchayats are the stakeholders and the main interest groups in these programmes. To ensure successful and sustainable implementation of watershed programmes, capacity building of different groups and functionaries through relevant training programmes is a key factor.

SHGs and UGs

PIA and WDT ensure imparting of training to SHG and UG members with the assistance of Institutions, NGOs with expertise, technical departments, etc. This training must include demonstrations by way of visits to successful watersheds, Research Stations, Kisan Vikas Kendras, etc., so as to expose the group members to viable technologies and practices successfully implemented elsewhere. Use of audio-visual media should be an effective instrument in facilitating training inputs.

Nodal Government Agencies

Since, the programmes are administered by ZPs/DRDAs, the relevant *orientation* and *sensitization* of the dealing functionaries in these organizations, including Project Directors and Chief Executive Officers, is an integral part of the training programme.

The State Rural Development Institutes organize such training programmes on their own and in collaboration with other institutions.

1.12 MONITORING AND EVALUATION

The implementation of watershed projects is monitored by periodically assessing the physical and financial progress. The Project Implementing Agency (PIA) submits such progress report to ZP/DRDA once in every three months. Similarly, each Watershed Committee/Gram Panchayat is required to furnish Quarterly Progress Reports (QPRs) to PIA after the Watershed Development Team has scrutinized and vetted it properly. DRDAs/ZPs and the State Governments are responsible for continuous monitoring of the projects and submit the QPRs of the districts and states to the Department of Land Resources, the Government of India.

The programmes are also monitored at the Central level under the Area Officers Scheme in which teams of senior officers of the Ministry of Rural Development interact with the State Officials and undertake field visits regularly to assess the implementation.

The watershed projects under DPAP and DDP are also subject to an *elaborate evaluation mechanism.*

The Evaluation Reports detail the assessment of the implementation of watershed projects broadly in four categories, viz. assessment of social, physical, financial and impact aspects.

1.13 ROLE OF NON-GOVERNMENT ORGANIZATIONS

The High Level Technical Committee of Prof. C.H. Hanumantha Rao underlined an active role for NGOs in the Watershed Development Programmes in order to implement them in *the participatory mode*. Accordingly, the Guidelines for Watershed Development envisaged the role of the Project Implementing Agency (PIA) (i.e. supervision and the overall implementation of projects) for NGOs besides the Panchayati Raj Institutions and the Line Departments.

The NGO should have been active in the area for a significant period before proposing a watershed project for the area.

There are success stories where NGOs have shown exemplary work and on the contrary some NGOs faced serious allegations on account of their incompetence, sub-quality works, irregularities, misutilization of funds, etc. Unfortunately, of late, the overall impression of NGOs in watershed development programmes has received

a set back and also an opinion against them has emerged. This has certainly affected the activities of the committed and performing NGOs.

1.14 PANCHAYATI RAJ INSTITUTIONS IN WATERSHED PROGRAMMES

The roles of Panchayati Raj Institutions (PRIs), especially Gram Sabhas/Gram Panchayats, were subdued and poorly defined in the *Guidelines of Watershed Development-1995* as these institutions had not much to do in the developmental activities. However, following the 73rd and the 74th Amendments to the Constitution of India, PRIs have become the primary and key actors in the implementation of developmental programmes at the grass roots levels. Accordingly, the Revised Guidelines for Watershed Development-2001 envisage an enlarged and more active role for PRIs.

The watershed projects sanctioned since 2003-04 under the Hariyali Guidelines are to be executed by the Gram Panchayats, instead of Watershed Committees, in consultation with the Gram Sabhas. Consequently, the first discharge of PIA's role now is with Block Panchayats and thereafter with the Zila Panchayats.

With the devolution of financial and administrative powers to PRIs, it is expected that they would perform better as they a) have the potential to integrate watershed development into the larger canvas of development activities in the area, b) are capable of mustering more support from Government Departments, c) are well equipped to maintain the created assets and levy user charges in usufruct sharing.

1.15 PERFORMANCE OF DPAP AND DDP

DPAP

DPAP is being currently implemented in 972 blocks of 195 districts in 16 States and covers an area of 745913 Sq. Kms. (*see details in Annexure I at Page 21*)

Since the adoption of watershed approach, from 1995-96 to August 2003, 18,803 projects (500 hectares each), including 2535 new projects sanctioned in 2003-04 under *Hariyali*, were taken up for treating an area of about 94.10 Lakh hectares The total cost of these projects is Rs. 4804.20 crores, of which Rs. 3298.70 crores is the share of the Central Government. Till 31.3.2004, the central share of Rs. 1431.03 crores was released to the *programme states*. Of the 18,803 projects, 4449 are deemed completed, as the corresponding Central share has been released in full.

On comparison, it is apparent that after the adoption of watershed approach, since 1995-96, the implementation has definitely accelerated as during the last 8 years of implementation, about 50 Lakh hectares of area is estimated to have been treated under DPAP, while prior to that 20 years of implementation registered treatment of about 57 Lakh hectares.

DDP

DDP programme is being implemented in 235 blocks of 40 districts, covering an area of 457949 sq. kms in 7 States, viz. Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka and Rajasthan.

Since the adoption of watershed approach, from 1995-96 to 2003-04, 9,876 DDP projects, including 1551 new projects of 2003-04 under *Hariyali*, have been taken up for treating an area of about 49.32 lakh hectares. This includes 1,895 special projects sanctioned for sand dune stabilization, shelter belt plantations and afforestation sanctioned to the state of Rajasthan. The total cost of these projects

is Rs. 2755.71 crores, of which the share of the Central Government is Rs. 2156.20 crores. Till 31.3.2004, about Rs. 1050 crores of Central funding has been disbursed to the programme States. Of the 9876 projects, 1,861 are deemed completed as the corresponding Central share has been released in full.

DDP has also gathered definite momentum over the years beginning 1995-96, as more than 19 Lakh hectares are estimated to have been treated till 2002-03 against only 5.15 Lakh hectares treated under the sectoral management of 15 years. The Central investment under DDP has also more than doubled since 1995-96.

Yet there is a very long way to traverse at the current pace of implementation and the quantum of investment under these two programmes. DPAP has so far addressed only about 12-13% of its total targeted coverage while DDP merely about 5%. There are some issues to be addressed to make the programmes more meaningful and objective oriented.

Nevertheless, the efforts made so far have shown encouraging results. As for the DPAP and DDP projects sanctioned during 1995-96 to 1997-98, which have either been completed or are nearing completion, the Ministry had commissioned *Impact Assessment Studies* through independent organizations. Some of these studies have since been completed. The results indicate that with the implementation of watershed projects under DPAP and DDP programmes, the overall productivity of land and water table have increased, and there has been a positive and significant impact on the overall economic development in the project areas. Further, the studies reveal that green vegetative cover has improved in desert areas and that is going to have a positive role in checking soil erosion caused by water and wind. The studies also indicate that the availability of fodder and fuel wood has improved in the programme areas.

Check Your Progress III

Note: a) Space is given below for your answers.

b) Check your answers with the possible answers given at the end of this unit.

1) List three criteria used for the selection of watersheds for treatment under DPAP/DDP.

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2) Describe the role of Panchayati Raj Institutions (PRIs) under *Hariyali Guidelines*.

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3) Enumerate three important areas of improvement in the implementation DPAP/DDP.

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1.16 LET US SUM UP

A sizable population of rural India inhabiting arid, semi-arid and sub-humid regions of the country is subject to abject poverty. These areas are characterized by frequent drought conditions and desertification. The means of traditional livelihood for the people in these areas are based on natural area resources, which due to adverse climatic conditions and degradation are severely depleted. DPAP and DDP were launched in 1973-74 and 1977-78 as long-term measures for poverty alleviation of such populations by aiming at *drought proofing* and *controlling of desertification* through the replenishment of natural area resource base, improved agricultural practices and wider livelihood options for the population. Initially, the two area development programmes were implemented on sectoral basis involving soil-moisture and water conservation activities, afforestation, pasture development, horticulture, animal husbandry, etc. The programmes, however, did not yield many benefits as the sectoral activities were taken up in isolation over disjointed areas of very small sizes without any involvement of the targeted population.

In 1994, a High Level Technical Committee reviewed the programmes and a watershed approach focusing on integrated implementation of various activities

was adopted. The philosophy of community participation and empowerment underlines the implementation of these programmes since then. The role of NGOs as the main facilitators has also recognized and the coverage under the two programmes has been identified by adopting scientific criteria, viz. moisture index, rainfall, evapo-transpiration, etc.

The programmes are being implemented through people's bodies, i.e. Watershed Committees and Watershed Associations. The two vital stakeholders under the programmes are Self-Help Groups for alternative livelihood avenues and User Groups for drawing benefits from the created assets. Training to various categories of stakeholders for capacity building is an important component under the programmes, but needs to be strengthened. The programmes are monitored and evaluated at the district, the state and the Central levels.

Following the 73rd and the 74th Amendments to the Constitution and the commitment of the Rural Development Ministry to give the central role to PRIs in watershed development, a new set of guidelines called *Hariyali Guidelines* has been formulated and made effective from April 1, 2003.

The watershed projects sanctioned under *Hariyali Guidelines* are to be executed by the Gram Panchayats, instead of Watershed Committees, in consultation with the Gram Sabhas. Consequently, the PIA's role is now to be with Block Panchayat. In case a Block Panchayat is not capable of taking up this responsibility for whatever reasons, the Zila Panchayat is to act as the PIA.

In order to be more *objective oriented* and meaningful, these programmes need a) to address issues like convergence with other programmes of rural development, b) to give greater importance to people's participation, c) more intensive training, d) better arrangements for the maintenance of assets and e) to pay greater attention to equity concerns.

The impact of these programmes so far has been encouraging as revealed by the studies. The overall productivity of land and water table has increased, and there has been a positive and significant impact on economic development in the project areas. The studies also indicate that the green vegetative cover has improved in desert areas and it is going to play a positive role in checking soil erosion caused by water and wind. The studies also indicate that the availability of fodder and fuel wood has also improved in the programme areas.

1.17 KEY WORDS

Desertification : The process of desert formation.

Endogenous : Originated from within; internally.

Evapo-transpiration : Process by which water moves from the soil into atmosphere by evaporation from the soil and water surface besides transpiration from plants.

Shelter Belt : Block plantations to protect crop fields, water bodies etc. from shifting send dunes.

Usufructs : user rights over an assent or produce.

1.18 REFERENCES AND SUGGESTED READINGS

Guidelines for Watershed Development 1995, 2001 and (Hariyali) 2003, The Department of Land Resources, The Ministry of Rural Development, The Government of India, New Delhi.

Report of the High Level Technical Committee (1994) under Prof C.H. Hanumantha Rao, The Department of Land Resources, The Ministry of Rural Development, The Government of India, New Delhi.

Report of the Kidwai Committee (1964) on Integrated Desert Development, The Ministry of Rural Development, The Government of India, New Delhi.

Report of the National Committee on DPAP & DDP (1988), The Planning Commission, New Delhi.

Report of the Task Force (1982) commissioned to review DPAP and DDP under the Chairmanship of Dr. Swaminathan, The Ministry of Rural Development, The Government of India, New Delhi.

The Ninth, Tenth and the Eleventh Five Year Plans, The Planning Commission, New Delhi.

Annual Report 2009-2010, (2010), The Ministry of Rural and Development, The Government of India, New Delhi.

1.19 CHECK YOUR PROGRESS – POSSIBLE SOLUTIONS/ANSWERS

Check Your Progress I

1) **The main objectives of DPAP and DDP are:**

- Mitigating the adverse effects of extreme climatic conditions such as drought and desertification on crops, human and livestock populations in order to enhance the overall improvement.
- Promoting the overall economic development and improving the socio-economic condition of the resource poor and disadvantaged sections of the society.
- Restoring ecological balance by harnessing, conserving and developing natural resource base, i.e. land, water and vegetative cover.
- Encouraging village the community for active participation in planning, implementation and sustainable maintenance of the assets created through their collective wisdom and indigenous technology.
- Employment generation, poverty alleviation, community empowerment and the development of human and other economic resources of the village.

2) **The major recommendations of the High Level Technical Committee are:**

- Treatment and development of degraded lands in drought prone and desert areas compulsorily on watershed basis covering contiguous micro-watersheds of 500 hectares that have primarily community lands and may encompass private and revenue lands and tracts of degraded forests.
- Implementation of DPAP and DDP with total participation of the beneficiary with adequate representation to women, SCs/STs, and the other weaker sections in planning and decision making.
- Transfer of programme assets to the community for maintenance and usufructs sharing among the beneficiaries.
- Unified approach and convergence of all rural development programmes with various departments/ministries to ensure a multiplier effect in area resource development and the economic development of the resource poor.

Check Your Progress II

1) **The important characteristics of a good work plan are:**

- creation of need based assets that are small but benefit larger number of people;
- provision of the post-operational maintenance of such assets by the PRIs/ beneficiaries; and
- sharing of the usufructs from commons by all, particularly the poorer participants.

2) **The definitions are:**

- **Drought** can be defined as a meteorological event characterized by a shortfall of rainfall in a given time period of more than a certain percentage, usually 50% of the average for the area in the sowing season.
- A **watershed** is defined as a geo-hydrological unit that drains into a common point.
- **Moisture Index** is a function of precipitation and potential evapo-transpiration and is defined by the following equation:

$$MI = [(P-PE)/PE] \times 100$$

Where, MI = Moisture Index, P = Precipitation and PE = Potential Evapo-transpiration.

Check Your Progress III

1) **The three criteria for the selection of a watershed for treatment under DPAP/DDP are:**

- Watersheds having acute shortage of drinking water.
- Watersheds inhabited by large populations of scheduled castes/tribes who depend on its natural resources.
- Watersheds/Villages where people's participation is assured in planning, implementation and maintenance of assets.

2) **The role of Panchayati Raj Institutions (PRIs) under *Hariyali Guidelines*.**

Following the 73rd and the 74th Amendments to the Constitution and the commitment of the Rural Development Ministry to give the central role to PRIs in watershed development, the new Guidelines called *Hariyali Guidelines* have been formulated.

The watershed projects sanctioned since 2003-04 under *Hariyali Guidelines* are to be executed by the Gram Panchayats, instead of Watershed Committees, in consultation with the Gram Sabhas. Consequently, the PIA's role is now to be taken up by the Block Panchayat. In case this panchayat is not capable of taking the responsibility then the Zila Panchayat is to act as PIA.

3) **The three important areas of improvement in the implementation of DPAP/DDP are:**

- Convergence of watershed development activities with other Rural Development Programmes in the area.
- Need a) to make inventories of the created assets, b) to put in place the mechanism for post-project maintenance and c) to evolve a mechanism for equity sharing of productive resources based on livelihood surveys before the formulation of work plans.

- Need a) to increase efforts for the capacity building of PRIs and other stakeholders' groups and b) to make training consistent with and relevant for the roles of various active players and also make it dynamic to effect improvements.
- People's participation needs to be geared up to institutionalize the programmes and the formation of SHGs and UGs under every project should really be vital for the success of implementation.

Annexure-I

STATES, DISTRICTS AND BLOCKS COVERED UNDER DROUGHT PRONE AREAS PROGRAMME (DPAP) AND DESERT DEVELOPMENT PROGRAMME (DDP)

Sl. No.	State	Number of Districts		Number of Blocks		Area in Sq. Kms.	
		DPAP	DDP	DPAP	DDP	DPAP	DDP
1.	Andhra Pradesh	11	1	94	16	99218	19136
2.	Bihar	6	–	30	–	9533	–
3.	Chattisgarh	9	–	29	–	21801	–
4.	Gujarat	14	6	67	52	43938	55424
5.	Haryana	–	7	–	45	–	20542
6.	Himachal Pradesh	3	2	10	3	3319	35107
7.	Jammu & Kashmir	6	2	22	12	14705	96701
8.	Jharkhand	15	–	100	–	34843	–
9.	Karnataka	17	6	81	22	84332	32295
10.	Madhya Pradesh	26	–	105	–	89101	–
11.	Maharashtra	25	–	149	–	194473	–
12.	Orissa	8	-	47	–	26178	–
13.	Rajasthan	11	16	32	85	31968	198744
14.	Tamil Nadu	18	–	80	–	29416	–
15.	Uttar Pradesh	15	–	60	–	35698	–
16.	Uttaranchal	7	–	30	–	15796	–
17.	West Bengal	4	–	36	–	11594	–
	Total	**195**	**40**	**972**	**235**	**745913**	**457949**

Source: *Annual Repot, Reports of Dept. of Land Resources, Ministry of Rural Development, Govt. of India,* ***2009-2010***

UNIT 2 RURAL SANITATION

Structure

2.0 OBJECTIVES

After studying this unit, you should be able to:

- describe clearly the relationship between improved sanitation and health, economy and development in rural India;
- explain the status of sanitation in rural India; and
- analyze and describe the policies and programmes being carried out by the Government of India and the Non-Government Organizations (NGOs) for Drinking Water and Sanitation (WATSAN).

2.1 INTRODUCTION

Sanitation is not only the basic necessities of life, but it is also crucial for achieving the goal of "Health for all". The proper sanitation and human waste disposal facilities should be available in every village in India. Denial of both has far reaching damaging effect on the health and the economy of the nation.

Sanitation is to be seen as a basic need, as basic as drinking water or food. A sanitary toilet, within or near home, provides privacy and dignity to women. Mahatma Gandhi emphasized the link between sanitation and health as a key goal for our society.

The Government of India has also undertaken integrated approach to improve sanitary conditions in the villages, as the rural sanitary conditions remain pathetic even today. Only 20% of the estimated rural households have sanitary facilities. The Government, therefore, plans to cover all the villages in the country through a reformative programme called the Total Sanitation Campaign (TSC).

In this unit you will learn about the various programmes and initiatives taken by the Government and Non-government Organizations to improve the sanitation situation in rural India.

2.2 IMPORTANCE OF SANITATION IN RURAL HEALTH, ECONOMY AND DEVELOPMENT

As you know water is one of the basic necessities of life. It is also the key to health, economy and development of the country. Let us discuss in detail as to how poor sanitary conditions affect *Health, Economy* and *Development.*

2.2.1 Health

People are unaware of the fact that defecation in open air pollutes the environment; throwing waste near their houses is a health hazard and that unhealthy practices of personal hygiene make them ill and weak. As a result 80 percent of the diseases occur due to poor sanitary conditions. For example, exposed human excreta related diseases such as cholera, typhoid, jaundice, etc. can be easily prevented if people in rural areas have the knowledge and means to handle the problem and lead healthy lives.

2.2.2 Economy

The economy of any nation is depended on healthy and strong people. Economy grows if we are able to develop human capital for its effective investment. Therefore, the key formula to develop human capital, which helps in the economic growth of the country, is '*grow more, eat more and maintain a healthy and balanced life'.*

2.2.3 Development

Improved health and agricultural production are directly linked to the development processes. Five and a half decades of planned development, however, has failed to fulfill the water and the sanitation needs of all; nor have we been able to educate and motivate people about the perils and the hazards of defecating in the open air. As a result, they have not participated in the development process actively; nor have they been able to derive any significant benefits from such programmes. Therefore, the promise to provide good sanitation remains unfulfilled. Consequently, our development agenda too remains unfulfilled.

2.3 SANITATION IN RURAL INDIA

The concept of *sanitation* broadly includes liquid and solid waste disposal, personal and food related hygiene and domestic as well as environmental hygiene. Looking at this broad definition, it would not be wrong to say that it hardly describes the sanitary conditions as they obtain in the villages of India. Most of the people still defecate in the open space, most of the villages lack waste disposal and drainage systems and many in the villages are ignorant about the consequences of poor sanitation and unhygienic conditions. As a result, many people suffer and even die of diseases caused by unhealthy practices of personal and environmental hygiene.

In villages, most of the diseases can be prevented easily, if people have pro r sanitary facilities and follow good practices of hygiene — use proper latr build drainage and garbage disposal systems, wash hands after defecation and b e eating food, use safe drinking water and clean food, take care of personal hyg e, use appropriate place and fuel for cooking, arrange proper ventilation in their houses, provide proper and clean sheds for the cattle, etc.

2.3.1 How do the Diseases Spread?

One of the major causes of human misery in the villages is the lack of latrines. People defecate in the open spaces in and around their habitation, making it not only dirty but also responsible for many infectious diseases. In fact open human excreta (faeces and urine), stagnant water and garbage are the ideal breading ground for flies, mosquitoes and microbes, which act as carriers of dangerous diseases.

2.3.2 How can Diseases be Prevented?

By now you know that the major cause of common diseases and sickness among village communities is the lack of safe drinking water supply and good sanitary facilities for the disposal of human wastes. If by some means people are prevented from drinking unsafe water or coming into contact with faucal matter, transmission of diseases can be controlled. Most diseases can be prevented, if people (in their day-to-day living) get used to:

- using safe water for drinking, washing raw vegetables and fruits and cleaning utensils,
- washing hands after defecation and before handling or eating food,
- using clean latrines,
- covering food items to ward off flies,
- disposing waste water and garbage properly,
- avoiding barefoot walks on soiled excreta, and
- treating stagnant water with chlorine to destroy the larvae.

2.3.3 Status of Sanitation in Rural Areas

Sanitation coverage, which ought to be a way of life to safeguard health, is inadequate in our country. In fact, problems like open defecation continue to remain the only form of sanitation for the majority of the population in rural areas. The practice of open defecation in India is due to a combination of factors-the most prominent of them being the traditional behavioural pattern and lack of awareness of the people about the associated health hazards.

The *sanitation facilities* in rural India have been very poor for ages now. The Indian population still lives below the minimum level of sanitation. According to Government estimates only 16 to 20 percent of the rural households have been covered under the rural sanitation programme during the Eight Plan. National Sample Survey, 54th Round Report (Drinking Water, Sanitation and Hygiene in India, July 1999) indicates that only 17.5% of the rural population was using the latrine. By the end of the 9th Plan, i.e. 2002, it is estimated that 20% of the Rural Households may have sanitary facilities through the Central Rural Sanitation Programme (CRSP).

The reasons for the ineffective implementation of the programme, despite huge expenditure (Rs. 921 crores), as given by the Government are as follows:

- very low priority given to sanitation by the State Governments and the people at large,
- low emphasis on Information, Education and Communication (IEC),
- promotion of a single model, i.e. twin-pit pour-flush latrines,
- heavy reliance on subsidy and lack of motivation for sanitation,

- poor disposal of waste water from water points, there by creating un-hygienic conditions and habits,
- unwillingness to pay for the cost of sewerage,
- scarcity of water and lack of community participation, and
- no involvement of NGOs/Private Sector in improving the sanitary conditions in villages.

Although Indira Awaas Yojana has a component of household latrines, the facility provided by it is often used for purposes of storage, like that of hey, fuel-wood, farm implements, etc.

2.3.4 Strategies and Programmes to Improve Sanitation

As only 20% of the rural habitations have sanitary facilities, the Government felt the need to formulate new strategies and programmes to increase the spread of rural sanitation facilities. Consequently, the Central Rural Sanitation Programme (CRSP) was restructured and launched in 1999 to link sanitation, health, hygiene awareness as well as larger environmental issues in a **Total Sanitation Campaign (TSC)** to address the needs of households in particular and the community in general.

Objectives

The main objective of the Total Sanitation Campaign is to bring about the desired improvements in the general quality of life in rural areas. To achieve this objective, the following operational objectives have been outlined for action:

a) accelerating coverage of the rural population,

b) generating the felt need through the creation of awareness and the promotion of health and hygiene,

c) covering all the schools in rural areas with sanitary facilities, and

d) encouraging suitable cost effective and appropriate technologies for purposes of improving sanitation.

This approach to the sanitation is not only people-centered but also community-led in order to ensure its sustainability. It is concerned with equity, the protection of the environment and the health of both the general public and the target group it is specifically aimed at.

With these objectives in view, efforts are being made for accelerating sanitation coverage of the rural population by creating a demand for and awareness of improved physical quality of life in rural areas, improving sanitation at schools and by providing suitable, cost-effective and locally designed toilets for individual households.

As we notice, the restructured programme has moved from a high subsidy to a low subsidy regime, which focuses on creating a demand for latrines by means of promoting awareness of hygiene and motivating the users to manage and fund their own sanitation facilities. Obviously, a change in the general behaviour of the rural populations is the key to the success of this approach.

Strategy

The Total Sanitation Campaign (TSC) is being initiated under the Sector Reform Programme. As a step towards decentralization, the campaign proposes to move from the state-wise allocation of funds to demand-based projects, where beneficiaries are not only empowered to choose their own schemes, but also made to bear the part-cost of the latrines. The components of TSC are household latrines,

construction of sanitary complexes for women, toilets for schools, educational institutions and balwadies/anganwadies. Besides, funds are being provided for start-up activities, Information, Education and Communication and administrative expenses.

The following are the main features of the TSC:

- shift from high- to low-subsidy regime– from Rs.2000/- to Rs.500/-;
- greater household involvement and participation in sanitation related activities;
- technology options as per the choice of beneficiary households;
- stress on Information, Education and Communication (IEC) as part of the campaign;
- emphasis on the sanitation of school;
- tie-up with various Rural Development Programmes;
- involvement of NGOs/CBOs and local groups, and
- promotion of access to the institutional finance.

Recognizing the link between healthy environment and sanitation, the MDGs stipulate, inter alia, halving, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. The TSC programme, the flagship programme of the government, has set an ambitious target beyond the MDGs and aims to achieve universal sanitation coverage in the country by the end of the Eleventh Plan.

2.4 PERFORMANCE REVIEW OF RURAL SANITATION SECTOR – TSC IN TENTH PLAN

The TSC is being implemented in 578 districts of 30 States/UTs with support from the Central Government and the respective State/UT governments. Against a target of 10.85 crore individual household toilets, the toilets reported completed is about 2.89 crore up to January 2007. In addition, about 3.12 lakh school toilets, 8900 sanitary complex for women, and 99150 *balwadi* toilets have been constructed. The approved outlay for the programme in the Tenth Plan was Rs 955 crore and the anticipated financial utilization is about Rs 2000 crore. The Eleventh Five Year Plan targets to complete 7.29 crore individual toilets for achieving universal sanitation coverage in rural areas.

2.4.1 Major Issues in Rural Sanitation Coverage

Though the current programme emphasis on construction of household toilets is laudable, it needs to reorient itself to a vigorous Information and Education Campaign mode to bring about a change in mindset. The evaluation study of the programme has shown that 20% of the toilets are not used or used for other purposes like storage. The superstructure for the toilet, the one that guarantees privacy and dignity, was provided funds under the programme starting only in March 2006.

The issue of convergence of the programme with health awareness received a boost only after the launch of the NRHM. While it was introduced earlier at school level, at the community level it was expanded later. However, the school programme had a cascading effect on the individual household and children helped to change attitudes. The awareness is now picking up and the programme needs to capitalize on this for increasing the sanitation coverage. Lack of priority for the programme by many States leading to inadequate provision of funds for the State share for the TSC, lack of emphasis on personal communication on sanitation at the village

level, and inadequate capacity building at the grassroot level are some of the common issues seen across the States that hinder expansion of sanitation coverage.

2.4.2 Eleventh Plan Priorities

While the hardware part of the programme for assisting the States in providing the various types of sanitation would continue, the focus now should be more on changing behaviour patterns. The Nirmal Gram Puraskar (described later) has brought a sea change in the attitudes of the community and it is promoting a healthy competition among the Panchayats for achieving total sanitation. Low-cost technology options for constructing the toilets should be tried and community should be given freedom to choose the various options. The focus on school sanitation needs to continue. In addition, SWM in villages should be the next focus area. Ten per cent of the TSC funds are earmarked for this purpose already. Adequate funding for the programme would have to be provided so that the momentum generated is not lost.

How Suravadi Panchayat in Phaltan Block in Satara District of Maharashtra won the Nirmal Gram Puraskar (NGP)

This Panchayat that has a population of 2891 people has 412 households out of which 112 are BPL households. The Panchayat has a village primary school, an anganwadi centre, and a Primary Health Centre five km away. There was no community toilet facility in the village. Men, women, and children used to defecate in the open. Out of 47 individual toilets 34 were not in use (used only for other purposes). Village was always highly stinking, no drainage, many ill with diseases like jaundice, flu, cholera, etc. Several village meetings were held for stoppage of open defecation. It looked like a Herculean task in the beginning, as people were not coming forward for construction of toilets.

Things began to change when *Sant Gadge Baba Gram Swachhata Abhiyan* started in year 2000 and motivational campaign and meetings were organized by Panchayat. The school teachers and students were involved in this campaign. Sanitation campaign started with making a 28-seater complex and few individual units. Persons still going for open defecation were penalized with no distribution of wheat and kerosene from FPS. It was also decided to give Rs 500 to every family to construct its own latrine. Construction of toilets geared up slowly but taken up in later stages by community participation. The Gram Panchayat and youth group of the same village monitored the sanitation programme.

Everybody is using toilets in the village today. Recognition of community is shown by painting all houses using toilets in pink colour. With the campaign, people also gained knowledge on bio-gas plants and about conservation of sources. The scheme was also linked with and benefited through other rural developmental schemes like Yaswant Gram Samruddhi Yojana.

To sustain the programme women and children get regular knowledge on cleanliness through school. Extra classes have been organized for students on promotion of sanitation and hygiene activities in the schools. The village now has a better school facility and the Panchayat is fully involved, as it had initiated this campaign. There is a feeling of pride with their becoming the first village in the entire State to get the NGP award.

Present sanitation status in the village is as follows:

Number of Households:	412
Status of Toilets:	100% using toilets
	Community Complexes (28 users)
	10 Gobar gas plants linked to toilets

2.5 IEC AND NIRMAL GRAM PURASKAR (NGP) – SUCCESS STORIES

Beyond Nirmal Gram-Monitoring for Sustainability

Once the village, block, or district Panchayat has received the Puraskar, there is a responsibility thrust on them, to maintain the Nirmal Gram status. The sustainability features mentioned in the Maharashtra success story on sanitation are worth emulating. Specially, community involvement with women and children would sustain the Nirmal Gram status. Such grams have to move now to the next stage of sustained SWM and proper street drainages.

To add vigour to the TSC, in June 2003, the GoI initiated an incentive scheme for fully sanitized and open defecation free Gram Panchayats, blocks, and districts called the NGP. The incentive pattern is based on population criteria. The NGP is given to the following:

- Gram Panchayats, blocks, and districts that achieve 100% sanitation coverage in terms of 100% sanitation coverage of individual households, 100% school sanitation coverage, making the village, block, district free from open defecation and with clean environment.
- Organizations that have been the driving force for effecting full sanitation coverage in the respective geographical area.

The incentive scheme has caught on like wild fire and the number of Panchayats who have received this Puraskar is steadily going up. From a mere 40 village/ block panchayats from six States that received the award in 2005, in the year 2007, the number of awardees have gone up to 4959 from 22 States. Maharashtra, which got 13 awards in 2005, received 1974 awards in 2007 — a significant achievement — followed by Gujarat with 576 awards. Box highlights the efforts of *Suravadi Panchayat* in this area.

2.6 LET US SUM UP

The sanitary facilities in rural India have been very poor for long now. Only 20% of the rural households may have sanitary facilities provided through the Central Rural Sanitation Programme. Due to the failure of the Government to provide sanitary facilities to all and partly because of the ignorance and inability of the rural people, their life is full of health hazards and misery and even death.

Recognizing the urgent need to increase the coverage of rural sanitation facilities, the Government has restructured the Central Rural Sanitation Programme. It links sanitation, health and hygiene awareness and environmental issues and attaches great importance to the needs of the households and the participation of the community in promoting the sustainability of the schemes. In the 10th Plan, which envisages covering all the districts (574) under the Total Sanitation Campaign, the sanitary conditions in rural habitations would certainly improve, thereby, making rural life better and healthy.

Check Your Progress I

Note: a) Write your answers in the space provided.

b) Check your answers with the possible answers provided at the end of the unit.

1) What is the status of Rural Sanitation in India? What steps should be taken to prevent diseases?

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2.7 KEY WORDS

WATSAN : Water and Sanitation

O & M : Operation and Maintenance.

IEC : Information, Education and Communication.

Sanitation : Keeping places clean and healthy.

Habitation : Home or the environment of people.

Hygiene : Practice of keeping surroundings clean in order to prevent illness and disease.

Beneficiaries : Persons who benefit from the programme.

Campaign : An organized course of action to achieve a goal.

Promote : To help something to happen.

Awareness : To make people know about a situation or facts.

Empowerment : To make people strong and confident and give them power to take their own decisions and implement them.

Appropriate : Suitable application of scientific knowledge.

Technologies : for practical purposes.

2.8 REFERENCES AND SUGGESTED READINGS

Report of the IV Sub Group- Rural Drinking Water Supply and Sanitation, 2001: The Ministry of Rural Development, The Government of India, New Delhi.

Annual Report, Ministry of Rural Development , Govt. of India 2009-2010

Website: http://upgov.nic/uprd/swajal.htm

Eleventh Five Year Plan *2007-12*

2.9 CHECK YOUR PROGRESS – POSSIBLE SOLUTIONS/ANSWERS

Check Your Progress I

1) The sanitation facilities in rural India have been very poor for a long time now. The Indian population still lives below the required minimum level of sanitation. By the end of the 9th Plan, i.e. 2002, it was estimated that 20% of the Rural Households had procured sanitary facilities through the Central Rural Sanitation Programme (CRSP).

   Most of the diseases can be prevented if people incorporate the following practices in their daily routines:

   - use safe water for drinking, wash raw vegetables and fruits and clean utensils properly,
   - wash hands after defecation and before handling or eating food,
   - use clean latrines,
   - cover food items to ward off flies,
   - dispose of waste water and garbage properly,
   - avoid walking barefoot on soiled excreta, and
   - treat stagnant water with chlorine to destroy the larvae.

UNIT 3 WASTELAND DEVELOPMENT AND SOCIAL FORESTRY

Structure

3.0 OBJECTIVES

After completing this unit, you should be able to:

- trace the evolution of Integrated Waste Land Development Programme;
- define what a wasteland is;
- describe the problems caused by wastelands;
- explain the salient features of the programme;
- outline the institutional framework for its implementation; and
- explain the ways of monitoring the performance of the programme.

3.1 INTRODUCTION

The most important natural resource, on which all human activity is based, is land. Man's inexorable progressive development has, however, damaged our land resource base considerably. Further, land also suffers from various kinds of soil erosion, degradation and deforestation. The estimates of the extent of area suffering from land degradation vary from 38.40 million hectares to 187 million hectares. The National Remote Sensing Agency (NRSA) of the Department of Space, Hyderabad, has estimated the extent of wastelands to be 63.85 million hectares, which is about 20% of the total geographical area of the country. To harness the full potential of the available land resources and prevent their further degradation,

the development of wastelands is of great significance. The problem of degraded land and its management is complex and multi-dimensional and its development requires a scientific, holistic and innovative approach. The question is whether such land is really a *waste* or if it can be made suitable for farming again. This unit is an attempt to explain the guiding principles, the basic features and the institutional framework for the implementation of Integrated Wasteland Development Programme.

3.2 HISTORICAL BACKGROUND/EVOLUTION OF THE PROGRAMME

Unprecedented population pressure and demands of society on scarce land, water and biological resources and the increasing degradation of these resources are affecting the stability and resilience of our ecosystems and the environment as a whole.

The challenge is to develop and promote sustainable and productive land use systems and to protect critical resources and ecosystems through balancing land, water and other resource uses, providing a basis for negotiation, participatory decision-making and conflict resolution among stakeholders, as well as providing an enabling political, social and economic environment.

To accelerate the pace of the development of wastelands and degraded lands and to give focused attention to the issues concerned. In April 1999, the nomenclature of the Department of Wastelands Development was modified to the Department of Land Resources (DoLR) to act as the Nodal Agency at the national level in the field of Land Resources Management. All land based Programmes/schemes, which were earlier being implemented by different Departments in the Ministry of Rural Development, have been brought within the purview of this new Department of Land Resources.

The Integrated Wastelands Development Programme (IWDP) had been under implementation since 1989-90. The IWDP envisages development of all the non-forest wastelands in the country.

3.3 OBJECTIVES OF IWDP

The basic purpose of the programme is to develop wastelands/degraded lands in the country in an integrated manner based on village/micro watershed treatment plans. Specifically, the programme aims at fulfilling the following objectives.

1) Developing wastelands/degraded lands on watershed basis, keeping in view the capability of land, site-conditions and local needs.

2) Promoting the overall economic development and improving the socio-economic condition of the resource poor and disadvantaged sections inhabiting the programme areas.

3) Restoring ecological balance by harnessing, conserving and developing natural resources, i.e. land, water, vegetative cover.

4) Encouraging village community:

   a) to undertake sustained community action for the operation and maintenance of assets created and to further the development of the potential of the natural resources in the watershed; and

   b) to adopt simple, easy and affordable technological solutions and institutional arrangements that make use of, and build upon, local technical knowledge and available materials.

5) Employment generation, poverty alleviation, community empowerment and development of human and other economic resources of the village.

3.4 WASTELANDS: DEFINITION, CATEGORIES, AREA ESTIMATES AND WASTELANDS ATLAS

Definition: As per the Report of the Technical Task Group constituted by the Planning Commission (1987), wastelands are "degraded lands which can be brought under vegetative cover with reasonable efforts and which are currently under-utilized and land which is deteriorating for lack of appropriate water and soil management or on account of natural causes."

There are various estimates on the extent of wastelands/degraded lands in the country.

The variation in the area estimates by these agencies is due to the type and nature of secondary data used and the methodology of estimation.

During 2000, the National Remote Sensing Agency, Hyderabad, under the sponsorship of the Department of Land Resources, the Ministry of Rural Development brought out the "Wastelands Atlas of India" which contains maps on a 1:50000 scale and provides district-wise estimates of various types of wastelands in the country. The boundaries of micro-watersheds have also been incorporated in the maps. As a result an authoritative figure on the extent of wastelands in the country has emerged for the first time on a highly scientific basis. According to these estimates, *out of 329 million hectares of total geographical area, 63.85 million hectares (20.17%) are wastelands comprising 14.06 million hectares of forest wastelands and 49.79 million hectares of non-forest wastelands. The details of category-wise wastelands* in India are given below.

Sl. No.	Category	Total (in m. ha.)	Wastelands Geographical Area
1	Gullied and/or Ravenous land	2.06	0.65
2	Land with or without scrub	19.40	6.13
3	Waterlogged and Marshy land	1.66	0.52
4	Land affected by salinity/alkalinity-coastal/inland	2.05	0.65
5	Shifting Cultivation Area	3.51	1.11
6	Under utilized/degraded notified forest land	14.06	4.44
7	Degraded pastures/grazing land	2.60	0.82
8	Degraded land under plantation crops	0.58	0.18
9	Sands– Inland/Coastal	5.00	1.58
10	Mining/Industrial wastelands	0.13	0.04
11	Barren rocky/stony waste/sheet rock area	6.45	2.04
12	Steep sloping area	0.77	0.24
13	Snow covered and/or glacial area	5.58	1.76
	Total Wasteland Area	**63.85**	**20.17**

Check Your Progress I

Note: a) Space is given below for your answers.

b) Check your answers with the possible answers given at the end of this unit.

1) What is the basic purpose of Integrated Wasteland Development Programme?

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2) What is a Wasteland and what are the causes of the formation of Wastelands?

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3.5 PROGRAMME GUIDELINES AND GUIDING PRINCIPLES

In April 1993, the Ministry of Rural Development constituted a high-level Technical Committee under the chairmanship of Prof. C.H. Hanumantha Rao, who was earlier a Member (Agriculture) of the Planning Commission. The Technical Committee brought out its Report in April 1994, which inter alia recommended that:

1) All the Area Development Programmes being administered by the Ministry of Rural Development, including the Integrated Wastelands Development Programme (IWDP), should have a watershed as the basic unit of development.

2) Small watersheds, each of a size of about 500 hectares, which may cover one village as far as possible, be identified for development.

3) The small watershed, so identified at the village level, should be managed in terms of its planning, implementation and maintenance by the local people themselves with the Government and the non-Government Organizations providing the necessary technical and financial support services.

On the basis of the recommendations of the Hanumantha Rao Committee (1994), the Ministry of Rural Development issued "Guidelines for Watershed Development" and brought the three Area Development Programmes of the Ministry, viz. DPAP, DDP and IWDP under the purview of these Guidelines. These Guidelines became operational with effect from April 1,1995.

Since then, *watershed development approach* for area development and *people's participation* in all aspects of the implementation of the area development programmes of the Ministry have become the Guiding Principles in the administration of these programmes.

Check Your Progress II

Note: a) Space is given below for your answer.

b) Check your answer with the possible answer given at the end of this unit.

1) Define *watershed*?

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3.5.1 Revision of Guidelines

After implementing the programme for over 5 years, a need was felt by both the State Governments as well as the Department of Land Resources for fine-tuning certain provisions of the Guidelines to make them more suitable to the local requirements. Accordingly, the Guidelines for Watershed Development were revised in August 2001 to make them more focused, transparent and easy to follow.

Role of Panchayati Raj Institutions: In order to ensure people's participation in the implementation of watershed projects under the three Programmes, the Guidelines for Watershed Development provided for a detailed institutional framework at all levels of implementation, particularly people's organizations called the Watershed Associations, the Watershed Committees, the Self Help Groups, the User Groups, etc. at the village level.

Following the 73rd and the 74th Amendments to the Constitution of India, the Panchayati Raj Institutions (PRIs) have been mandated with an enlarged role in the implementation of developmental programmes at the grass-roots level. The institutional framework of Watershed Associations and Watershed Committees depicted them as parallel bodies at the village level as far as the implementation of Watershed Programmes was concerned, and there was very little coordination between them and the Gram Panchayats/Gram Sabhas. On devolution of the necessary powers, the PRIs are expected to perform far better than the Watershed Associations/Committees. With this objective, the Prime Minister of India launched a new initiative called *Hariyali* on 27th January 2003. It seeks to empower the PRIs, both administratively and financially, for the implementation of the Watershed Development Programmes of the Ministry of Rural Development. Accordingly, the Ministry have modified the existing provisions and incorporated the new initiative in the Guidelines. The guidelines so modified are now called the *Guidelines for Hariyali*, which are commonly applicable to IWDP, DPAP and DDP. These Guidelines became operational with effect from April 1, 2003.

3.5.2 Salient Features of the Guidelines

1) The Guidelines are designed in such a way that the user communities have to take the center stage in the implementation and management of area development programmes in which the Government participates.

2) Since degradation usually occurs and gets aggravated through over exploitation of lands under public/common ownership, emphasis is on the development of common/community lands and not on the privately owned lands.

3) Emphasis is placed on sustainable rural livelihood support systems through Self-Help Groups from the landless and the weaker sections of the watershed community and the User Groups built around each of the community assets created under the project, thus securing the participation of women as well as the landless also in watershed development.

4) In order to enable the village community and all other stakeholders participate actively in the watershed development activities, specific provisions have been made for their capacity building and skill development which is a vital component of the programmes and is a pre-requisite to initiate actual development works on the ground.

5) Community participation and the feeling of owning the assets created under the programme are brought about through insistence on public contributions to the project cost, either in cash or kind or voluntary labour. The beneficiaries of various development works/assets of the project are required to contribute at least 10% of the project cost by these means.

Check Your Progress III

Note: a) Space is given below for your answers.

b) Check your answers with the possible answers given at the end of this unit.

1) How are wastelands identified for treatment under IWDP?

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2) What monitoring mechanism is followed in IWDP?

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3.6 SOCIAL FORESTRY: PERSPECTIVE

Social forestry projects aimed at taking the pressure away from the forests by afforestation of all the unused and fallow lands including village common lands, the Government wasteland and Panchayat lands. Tree planting in and around agricultural fields, along railway lines, roadsides, river and canal banks were carried

out to meet the growing demand for timber, fuel wood, fodder, etc., thereby reducing the pressure on the traditional forest area.

It was also considered as a means of putting to the optimum use the fallow and degraded lands.

3.7 TYPES OF SOCIAL FORESTRY

Social forestry activities may be categorized into three groups: farm forestry, agro-forestry and community and extension forestry.

Forests form the life support system for a population of nearly 147 million people living in about 1,73,000 villages of India inside and along the fringes of forests. The state of forests has been intrinsically related to the economic well being of the rural poor in these villages. Increasing population, development programmes and accordingly the invasive use of forests has caused shrinking of forest areas and therefore increase in the pressure for forest products and services. Naturally the rural poor in the vicinity have been the worst affected lot.

The present availability on a sustainable basis from the existing forests has been estimated at only 17 million tons. It is believed that about 51% of the total demand, much more than is available, is met from forests. Similar pressures exist for timber, fodder and other forest products. Productivity of our forests as estimated is 1.3 cubic meters per ha per year compared to the global average of 2.10 cubic meters per ha per year in terms of timber and firewood. The diversion of forests for various development needs also has contributed to the depletion of these resources.

Conventional rural development programmes have seldom taken into consideration this situation and there have not been any specially designed rural development models for the rural areas with populations wholly dependent on the forest resources for subsistence. The maintenance of forest resource base has always been a critical factor in the life of forest fringe communities, but it has seldom been seen as a means of rural development.

Concepts of social forestry and participatory forest management have emerged as a response to these circumstances. This unit aims at providing you an understanding of the concepts and programmes associated with the forestry aspect of natural resource management in a rural development environment. Also, the recent trends in the management of forest resources as applied in the social and legal framework of the empowerment scenario of rural life are introduced.

The development of rural India is an imperative for inclusive and equitable growth and to unlock the huge potential of the population that is presently trapped in poverty with its associated deprivations. The thrust of the Eleventh Five Year Plan is social inclusion coupled with provision of improved livelihood opportunities. The MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) has been enacted to reinforce the commitment towards livelihood security in rural areas. The Act was notified on 7th September, 2005. The significance of MGNREGA lies in the fact that it creates a right-based framework for wage employment programmes and makes the government legally bound to provide employment to those who seek it. The MGNREGA marks a paradigm shift from the previous wage employment programmes by providing a statutory guarantee of wage employment programmes by providing a statutory guarantee of wage employment and not being just a scheme.

3.7.1 Farm Forestry

Individual farmers are encouraged to plant trees in their own farmlands to meet the market requirements of wood products. Forest departments as well as industries

promoted forestry as a diversification option to conventional agriculture in suitable farmlands. In the initial stages, planting material was made available by the state forest departments. Subsequently, industries established buy-back agreements with *tree growers* and financial institutions also facilitated investments. These systems developed in the states like Punjab, Haryana, Gujarat, Karnataka, Uttar Pradesh, parts of Himachal Pradesh, etc. Now industries have their own nursery development programmes and quality seedlings are provided to the farmers with whom they have buy-back arrangements. WIMCO, Mysore Paper Mills, some units of Hindustan Paper Corporation and ITC Bhadrachalam are some of the pioneers in this field. The programme experienced a setback in the wake of smaller holdings coming to the fore and difficulties of the industries to organize these arrangements with smaller farmers and also the relaxed import of pulp. Relatively longer gestation period, demand driven market and emphasis on exotics and monoculture also contributed to the slow progress of the programme. However, economic considerations ensured that the system survived in the private sector and is still prevalent in many parts of the country.

3.7.2 Agro-Forestry

Agro-forestry is the system of land use that combines growing of forest trees along with agricultural crops. The farmlands are used for agricultural crops and trees are grown along the margins for various needs of the farmers. In fact, most farmers in India grow agricultural crops, rear animals, and plant certain trees on their land, often on the boundary areas. Growing of trees helps in conserving soil, enhancing soil fertility, and providing shelterbelts for crops and fruit trees, apart from wood and other produce.

Agro-forestry reduces farmers' dependence on forests even as it provides them economic benefits resulting in a healthy and sustainable land-use system. There have been several traditional agro-forestry systems in vogue in different regions of the country. Usually multipurpose trees are grown along the farmlands. Different versions of shifting agriculture are also termed as agro-forestry systems, which are now considered unsustainable because of their short cycles and high frequency.

The agro-forestry programmes in India were started in the late 1970s as a component of social forestry programmes. The Government promoted agro- forestry systems included fast growing species like eucalyptus, poplar, subabul, siris, etc. These systems though still prevalent in some areas, have not become very popular because of the market situation, which led to the slump in farm forestry systems. Five Year Plans, proposed to popularize agro-forestry as a strategy to increase the green cover of the country in areas outside the government forests.

3.7.3 Community Forestry

Another scheme taken up under the social forestry programme is the raising of trees on community land and not on private land as in farm forestry. All these programmes aim at creating tree resources for the entire community and not for any individual. The government takes the responsibility of providing seedlings, fertilizers, etc., but the community has to take the responsibility of protecting the trees. Some communities have managed the plantations sensibly and in a sustainable manner and the public continues to benefit.

Planting of trees on the sides of roads, canals and railways, along with planting on wastelands came to be known as 'extension forestry', as it increases the domain of forests. Planting of trees in vacant lands in urban areas, mainly along roadsides for beautification and for reducing noise and dust levels, came to be known as 'urban forestry'. Developing beautiful landscapes for recreation like picnics, jogging, relaxation, education, etc. has been named as 'recreation forestry'. Under this system wood lots have been created in village common lands, government wastelands, panchayat lands and urban areas.

Check Your Progress IV

Note: a) Space is given below for your answers.

b) Check your answers with the possible answers given at the end of this unit.

1) Enumerate the main causes of the depletion of forests and its impact on rural population.

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2) What are the main types of social forestry?

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National Forest Policy 1988 acknowledged the importance and primacy of local communities and provided for a sustainable management approach with maintenance of environmental stability as the prime objective. Commitment to conservation of nature is highlighted by the targets of maintaining one-third of land under the forest/tree cover. The social concerns are targeted through increasing productivity to meet local and national needs and creating a people's movement for afforestation. Industries have been advised to network with farmers for industrial raw material.

Forest cover is critical for a living environment as it influences the quality and quantity of air and water. The role of forests as carbon sinks endows them added recognition as an important environmental factor.

In India, per capita forest area is only 0.064 ha against the world average of 0.64 ha. (FAO). The productivity of our forests is only 1.34 m3/ha/year against the world average of 2.1 m3/ha/year. While 78% of the forest area is subjected to heavy grazing and other unregulated uses, adversely affecting productivity and regeneration, nearly 10 MH of forest area is subjected to shifting cultivation. Land use changes such as diversion of community areas for non-biomass purposes have directed nearly all biomass needs towards forests.

Plan investment in forestry and wildlife sector so far, including State and Central plan, has been about 1% of the total plan outlay. The National Forestry Commission (2006) has recommended an investment of 2.5% of the plan outlay in the forestry and wildlife sector.

The CSS National Afforestation Programme (NAP) of National Afforestation and Eco-development Board (NAEB) assists rehabilitation of degraded forests through JFM Committees. Forest Development Agencies (FDAs) have been created at the district level to function as a link between the Ministry of Environment and Forest (MoEF) and JFM Committees for the scrutiny of projects, release of funds, and implementation of the sanctioned programmes.

3.8 ROLE OF PANCHAYATI RAJ INSTITUTIONS IN JFM

Through Joint Forest Management, degraded government forests in the vicinity of villages are being revitalized by the collective efforts of the government and the villagers. In 1988 the Government of India introduced a new forest policy that radically altered the aims of forest management, shifting it from a commercial and industrial focus to one that stresses environmental functions and meets the basic needs of the people living in or near the forests. For the first time, the rights of people living in and around the forests were recognized as a part of the management of forests, and the demand of the people has been recognized as the first charge on the forest produce.

In support of this new policy, in 1990 the Government of India issued a directive to the states to develop a participatory approach in their efforts to restore nation's degraded forests. This approach has been named Joint Forest Management and is also called Participatory Forest Management. Based on the experiences gained in the implementation of this programme since 1990, the Government of India modified the related guidelines in 2000 and 2002 and State Governments have been framing their respective rules within the framework of the said guidelines of the Government of India.

The National Afforestation and Eco-development Board (NAEB) was established in 1992 for promoting afforestation and ecological restoration activities in the country. It is the successor of the erstwhile National Wasteland Development Board (NWDB) and is responsible for providing impetus to the rehabilitation of degraded forests in the states. Under the National Afforestation Programme, the Government of India assists the states in their afforestation efforts. Also, this programme is being used by the Government of India to expand and promote the Joint Forest Management in the states.

Social forestry was originally conceived by the government as a response to the forestry crisis and to the accelerating deforestation in India. The original objectives of social forestry projects were to assist rural communities and the landless people to meet their needs for fodder, fuel wood, small timber, fruits, and minor forest produce through tree plantations planned and managed by the community.

Most social forestry projects, however, came under increasing criticism because they failed to adequately involve the local communities and the rural poor, the main beneficiaries. Instead, these projects catered mainly to urban and commercial interests through the widespread promotion of fast growing tree species for pulp and paper manufacture, rayon production, urban fuel wood supply and other commercial uses. Private farmlands, wastelands and community lands were converted for these uses, and in a number of cases the access of the poorer rural population to fodder, fuel wood and other forest products actually reduced. The only benefit was the availability of seasonal employment to the rural people in tree planting operations, which actually reduced in net terms in the case of farm forestry.

On the management front, the main drawbacks included greater emphasis on silviculture, lack of the required extension work, involvement of people and Panchayati Raj Institutions, commensurate modifications in the forest regulations to motivate people to grow trees and that of orientation for the grass roots functionaries towards the needs of social forestry. Focus on economic benefits gave greater emphasis to fast growing species, which could not cater to the subsistence needs of the poor. Although eucalyptus trees grow more quickly, and remained at the focus of the projects, they could not provide the community with basic subsistence items.

A 1988 mid-term review of social forestry cited the lack of the participation of local communities in project design and implementation and over reliance on industry-biased management as the main causes of the shortcomings of the project.

Initiated with the circular of the MoEF on 1 June 1990 on people's involvement in forest conservation and management, the JFM regime has evolved gradually and at present 106479 such committees (22 million participants) are functioning in 28 States covering 22.02 million ha of forests. This participatory regime is seen as a potential strength of forest management for the forest fringes. The challenge now is to effectively empower the local communities with appropriate rights and responsibilities, and ensure that substantial benefits from forest conservation accrue to them.

Among the 29 duties entrusted to the PRIs as per the Act, *social forestry, farm forestry, minor forest produce, fuel and fodder* are some, which are related to the forestry sector. Thus, it empowers the PRIs to take decisions regarding the management of the natural resouree at their disposal. Panchayats (Extension to the Scheduled Areas) Act 1996 extends panchayats to the tribal areas of Andhra Pradesh, Bihar, Jharkhand, Gujarat, Himachal Pradesh, Maharashtra, Madhya Pradesh, Chhattisgarh, Orissa and Rajasthan with the objective of enabling tribal societies to assume control over their own destiny to preserve and conserve their traditional rights over natural resources.

The participatory management of forests enables the communities to understand the capability of the forests in catering to their need and thus prompts them to have a realistic resource management plan, based on their requirements and priorities, for the forests entrusted with them. The empowerment of communities in planning and managing the common property resources in their vicinity evolves a sense of ownership of the forests and thus the responsibility of maintaining sustainability becomes a voluntary commitment. As all the villagers are involved in this process, unity and consensus for taking conscious decisions about collective (common property) resources along with wholehearted co-operation are evolved. These, as we know, are the crucial attributes for an ideal village society. Participatory management also ensures willing inputs from the communities in optimizing/maximizing the productivity of forests. The process of micro planning enables the villagers to understand and appreciate the resource related issues and the importance efforts required for conservation of natural resources.

Most of the states have adopted the JFM concept for the management of degraded forests in the vicinity of villages. The Government of India has made JFM an integral part of the National Afforestation Scheme in which the Central Government provides funds for afforestation of degraded forests through Forest Development Agencies (FDAs), which are the consortia of JFM Committees with representation from Panchayats, Forest and other line Departments of the State Governments concerned.

Check Your Progress V

Note: a) Space is given below for your answers.

b) Check your answers with the possible answers given at the end of this unit.

1) What are the factors that affected the realization of the objectives of the social forestry programme?

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2) Elaborate the factors that have affected the popularity of farm forestry and agro-forestry systems.

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3.9 THE SOCIAL FORESTRY PROGRAMME: SOME LESSONS

Today, the social forestry establishments within the state governments continue with the work of extension and awareness campaigns, afforestation on non-forest lands, urban forestry and the related activities. Community participation in social forestry is pursued through government interventions in the preservation of sacred groves, planting of institutional areas, other vacant lands and urban areas with resident associations, etc.

Though by law social forestry is a Panchayat subject, Panchayats have seldom played any active role in the process of afforestation in the case of common lands. It is necessary that the establishment of social forestry operates in collaboration with Panchayati Raj Institutions, as these institutions have adequate allocation of resources for afforestation and the management of existing *tree lands* as common property resources.

Among the 29 duties entrusted to the PRIs, *social forestry, farm forestry, minor forest produce, fuel and fodder* are some, which are related to the forestry sector. Thus, it empowers the PRIs to take decisions regarding the management of the natural resource at their disposal.

Village eco-development was adopted as a government effort for the management of PAs during the Ninth Five Year Plan. A pilot project on park management based on participatory Village Eco-development was started during the plan period in seven Project Tiger Areas under the aegis of the Global Environment Facility (GEF) through the World Bank. Now the Government of India has prescribed that the village eco-development activities be taken up as a regular Protected Areas *(PA) management* activity in all the wildlife *park management* schemes supported by the Central funds.

3.10 LET US SUM UP

In this unit, you have read about the efforts made by the Government of India for the development of vast areas of wastelands, which can be improved to productive use. You have seen that the Integrated Wastelands Development Programme under implementation aims to develop the wastelands in an integrated manner so that the natural resource base of the degraded areas is regenerated and brought back to productive use resulting in the overall economic development of the rural communities depending on these areas for their livelihood.

You read that IWDP is implemented exclusively on watershed basis and by the people themselves inhabiting the project areas. This is a people's programme where the Government participates. We learnt about the Guidelines that govern the implementation of the programme, the institutional framework specified at various levels for the purpose and the salient features of the programme. Further, we learnt about some drawbacks in the process of implementing the programme and the

corresponding efforts made to overcome them. Despite these weaknesses, we have seen that the programme has generated significant impact– land quality has improved, more water is available and more areas are under the green-cover now.

We have learnt that the problem of wastelands development is so large that the finances available for the programme annually are not adequate to tackle the problem speedily and in a time-bound manner. Obviously, we require active participation of other players like the corporate sector, financial institutions and external donors in order to comprehensively develop our wasteland areas.

We have seen that the pressures of population, development and the resultant invasive use of forests caused degradation and depletion. At the local level the worst sufferers have been the rural people living in the vicinity of forests. Social Forestry Programmes designed for afforestation of forest areas as well as non-forest areas dealt mainly with biomass production for relieving the pressures of wood products from forests. Popularity of these tree-planting programmes promoted in private, community and other degraded lands varied depending upon the requirement of user populations, demand situation of industries and policy and laws related interventions. Social forestry programme has been recognized as a programme for planting trees, wherein community participation could not be ensured satisfactorily.

For rehabilitation of degraded forests in the vicinity of inhabited areas, people's institutions have been created to manage government forests in recognition of their first claim on the natural resources as provided in the National Forest Policy 1988. The guidelines of the Government of India for this participatory approach, named the Joint Forest Management, issued in 1990 and improved in 2000 and 2002, provided for the transfer of the responsibility of managing these forests to the communities in terms of planning, management, protection and sharing of benefits. These Guidelines provide for adequate representation of women in decision-making and clarify that the institutions are independent of the purview of Panchayati Raj Institutions for the management of State Forests. However, a clear definition of roles and responsibilities is needed for conflict resolution.

Similar institutional arrangements are evolving for the conservation of biodiversity and the concept of Village Eco-development is emerging as a viable means of ensuring peoples participation in Protected Area Management. It also helps in mitigating conflicts arising out of the denial of forest based subsistence related activities within the Protected Areas.

Thus, community participation in the management of natural resources in the rural development scenario has taken place in the field of forest management. It is expected that the related community institutions would perform this task to bring productivity to the optimum level and the resource character in conformity with their requirements. The ecological functions of the forests can be fulfilled only when the communities ensure optimum productivity in terms of biomass and sustainability in use of forest products.

3.11 KEY WORDS

Culturable Waste	:	Land which by upgradation can be put to cultivation.
Aquifers	:	Sub-soil water sources.
Exotics	:	Plants which are not native to Indian Habitats and have been imported such as eucalyptus.
Monoculture	:	Cultivation of single/similar species of trees.
Silviculture	:	Art and science of growing trees.

Preservation of sacred grows : Natural and small patches of forests surrounding religion shrines and preserved by the community based on their religious beliefs.

3.12 REFERENCES AND SUGGESTED READINGS

Desert Development Programme, 1994: The Ministry of Rural Development, The Government of India, New Delhi.

Guidelines for Hariyali, 2003: The Department of Land Resources, The Ministry of Rural Development, The Government of India, New Delhi.

Guidelines for Watershed Development (Revised), 2001: The Department of Land Resources, The Ministry of Rural Development, The Government of India, New Delhi.

Parivartan-A Compilation of Success Stories, 2003: The Ministry of Rural Development, The Government of India, New Delhi.

Annual Report 2008-2009, (2009): The Ministry of Environment and Forests, The Government of India, New Delhi.

Annual Report 2008-2009, (2009): The Ministry of Rural Development, The Government of India, New Delhi.

Human, Joe and Manoj Pattanaik, (2000): *Community Forest Management: A Case Book from India*, Oxfam Publication, U.K.

India's Forests Beyond 2000, (2002): Commonwealth Forestry Association, India, Write Arm, Bangalore.

Lal, J. B., (1992): *India's Forests: Myth and Reality*, Natraj Publishers, Dehradun.

National Wildlife Action Plan (2002-2016), (2002): The Ministry of Environment and Forests, The Government of India, New Delhi.

Prabhakar, V. K., (1998): *Social and Community Forestry*, Indian Publishers & Distributors, Delhi.

Report of the Task Force on Greening India for Livelihood Security and Sustainable Development, (2001): Planning Commission, The Government of India, New Delhi.

Social Forestry In India, (1993): National Institute of Rural Development, Hyderabad.

Day Shepherd, N. and Jorgensen, I., (2003): *Social Forestry in South Asia: Myths and Realities*. Noragric Working Paper no. 30, Agricultural University, Norway.

3.13 CHECK YOUR PROGRESS – POSSIBLE SOLUTIONS/ANSWERS

Check Your Progress I

1) The main purpose of the integrated wasteland development programme is to develop wasteland as well as degraded lands in an integrated fashion, with a clear understanding of the capability of the land, site conditions and local needs. This is also expected to help in restoring ecological balance and promoting overall economic development of the people residing in these areas.

2) Wastelands are 'degraded lands which are either completely or partially unfit for agriculture and also include such land as is deteriorating for lack of appropriate water and soil management or on account of natural causes'. The causes for the formation of wasteland are deforestation, unscientific cultivation, overgrazing and wrong methods of irrigation.

Check Your Progress II

1) A watershed is a land area from where rainwater flows down to a common drainage point. The ridges of the Watershed form its boundaries. The flow of water takes place on the surface of the land in the watershed area. If the land surface of the watershed area is not adequately covered with vegetation, surface soil gets carried away by the rain water run off, causing severe soil erosion problems and silting of streams and water bodies down stream. The watershed development, therefore, involves scientific treatment of the watershed area from the ridges to the flat lands, in that order of priority.

Check Your Progress III

1) Under IWDP, wastelands for treatment are identified using the following considerations:

   i) The districts are prioritized.

   ii) Preference is given to those districts that have large areas of wastelands and have not taken up any watershed project earlier.

   iii) The selected district should reflect a high degree of backwardness.

2) The programme implementation is monitored at frequent intervals at various levels by the Central and the State Governments as well as Zilla Parishads and DRDAs. Further, a mid-term evaluation is conducted after 45% of the project cost is released to the districts. The results of this mid-term evaluation are utilized by the department concerned for taking mid-course corrective action wherever necessary.

Check Your Progress IV

1) The main causes of the depletion of forests and its impact on rural population include:

   - Invasive use of forests for developmental activities depleting forestlands.
   - Population growth resulting in higher pressure for removal of forest produce.
   - Increased deprivation of communities due to shrinking forest resources.
   - Lack of consideration for the needs of communities in forest management planning and rural development.

Thus, depletion of forest resources causes denial of the life support system that the forests provide to the fringe dwelling communities. Development of forests is an integral part of village development for the communities that live in over 1.70 lakh villages dependent on forests for their daily subsistence.

2) Social Forestry dealt mainly with the plantation of trees, generally economically important species, in private and community/common lands. Tree cultivation in and along farmlands came to be called *farm forestry* and *agro-forestry*. Planting trees in community lands is termed community forestry. Plantation along roadsides, railway lines, ponds and river embankments, and such other places is known as extension forestry. The terms recreation forestry and urban

forestry refer respectively to the plantation activities for beautifying landscapes and development of green cover in urban areas.

Check Your Progress V

1) The positive impact of social forestry programmes was the expansion of tree cover in many areas and increased availability of wood products such as fuel wood and raw material for industries. This was the outcome of the focus of social forestry programmes on the plantation of trees. This programme also provided seasonal employment to the rural people.

The factors that affected the programme badly are as follows:

- Excessive emphasis on wood production overlooking the needs of communities.
- Communities could not be involved in the planning process.
- Fast growing species chosen for quick success catered to industries but could not meet the demands of the people.
- Cultivation of trees without the involvement of people rendered these plantations inaccessible to communities; this added to the levels of their alienation.
- Subsidies available to forest based industries on the raw material supplied by forests.
- A demand-driven programme not facilitated through market support.
- Forest regulations regarding felling of trees and their transportation acted as disincentives.
- Fall in the price of pulp due to relaxed imports affected the viability of plantation programmes.

2) The factors which have affected the popularity of farm forestry and agro-forestry systems are:

- Subsidies available to forest based industries on the raw material supplied by forests.
- A demand-driven programme not facilitated through market support.
- Forest regulations on felling and transportation acted as disincentives.
- Fall in the price of pulp due to relaxed imports affected the viability of plantation programmes.

BPR-003 : Panchayati Raj Institutions and Anti Poverty Programmes

Block-1: Programmes for Self-wage Employment and Rural Housing

Unit 1 Swarnjayanti Gram Swarozgar Yojana (SGSY)

Unit 2 Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

Unit 3 Indira Awaas Yojna (IAY)

Block-2: Other Development Programmes

Unit 1 Backward Region Grant Fund (BRGF)

Unit 2 Prime Minister's Rozgar Yojana (PMRY)

Unit 3 Rashtriya Mahila Kosh (RMK)

Block-3: Area Based and Other Related Programmes

Unit 1 Drought Prone Areas Programme (DPAP) & Desert Development Programme (DDP)

Unit 2 Rural Sanitation

Unit 3 Wasteland Development and Social Forestry

About the Project

IGNOU through the Ministry of Panchayati Raj and under the sponsorship of United Nations Development Programme (UNDP) undertook a project on **'Capacity Building of PRIs Through a Multi-Mode Training Intervention'** as an attempt at empowering and capacity building of elected members of *Panchayats* and development functionaries. It also aimed at institutionalizing mechanisms to strengthen this capacity building intervention. The Project covered six northern states including **Bihar, Haryana, Madhya Pradesh, Rajasthan, Chhattisgarh** and **Uttarakhand** with the **Indira Gandhi National Open University (IGNOU)** as the implementing agency. The Project envisaged joint action by Government established institutions (SIRDs) and NGOs engaged in Capacity Building of PRIs.

In terms of strategy it involved developing a **suitable learning package through a balanced mix of distance learning and conventional training**; adapting the materials to local requirements and implementing the capacity building intervention through distance mode for the elected members of Panchayats and train associated development functionaries through face to face mode through a network of SIRDs and NGOs.

In terms of activities and output of the Project, the Project has been able to prepare a multi-media package consisting of 11 self-learning booklets and six video programmes for distribution among the *Panchayats*; undertook capacity building of Collaborating Institutions (CIs); published of local Governance updates in each participating state; conducted BDOs Symposia and orientation programmes for development functionaries. One of the major activities taken up by the above CIs was to undertake hardware mapping of *Panchayats* in 4 Districts in each participating State. The Diploma in Panchayat Level Administration and Development, planned and developed as a part of academic activities of the School of Continuing Education, was also sponsored under the above Project.

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About IGNOU & SOCE

The **Indira Gandhi National Open University**, established by an Act of Parliament in 1985, has emerged as the largest Mega University in the democratic world. The University offers 486 Certificates, Diploma, Degree and Doctoral programmes through its 21 schools of Study, 12 Divisions, 14 Centres, 61 Regional Centres, over 3,000 Study Centres, 67 Partner Institutions spread across 35 countries. Additional help is also sought from about 6,000 experts from conventional universities and other organizations, and about 45,000 part-time academic counselors.

IGNOU caters to learners from rural and tribal areas, disability groups, jails and rehabilitation centres, government and non-governmental organizations, parents and home-makers, the employers and the employed.

One of the mandates of the University is to reach out to the disadvantaged by offering programmes in all parts of the country at affordable cost. IGNOU, the National Resource Centre for Open and Distance Learning with international recognition and presence, is expected to provide seamless access to sustainable ***and learner centric quality education, skill upgradation and training*** to all by using innovative technologies and methodologies and ensuring convergence of existing systems for massive human resource required for ***promoting integrated national development*** and global understanding.

The **School of Continuing Education (SOCE)** one of the oldest Schools currently has four disciplines assigned to it by the Academic Council. These include***: Rural Development, Nutritional Sciences, Child Development and; Home Science***. The School has currently on offer Ph.D programmes in three discipline areas, two Master's Degree level programmes, one Post Graduate Diploma, two Diploma Programmes, four Certificate Programmes and four elective and application oriented courses in the above mentioned disciplines.

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