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### STANDING COMMITTEE ON AGRICULTURE (1995-96)

TENTH LOK SABHA

# MINISTRY OF AGRICULTURE (DEPARTMENT OF AGRICULTURE & COOPERATION)

### NATIONAL WATERSHED DEVELOPMENT PROJECT FOR RAINFED AREAS

### THIRTY EIGHTH REPORT

AUTHENTICATED



NITISH KUMAR

CHAIRMAN STANDING COMMITTEE ON AGRICULTUR

28.3657 R 15.37 LOK SABHA SECRETARIAT NEW DELHI

March, 1996/Phalauna, 1917 (Saka)

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4.5

Presented to Lok Sabha on 11th March 1996 Laid in Rajya Sabha on 11th March 1996



# LOK SABHA SECRETARIAT NEW DELHI

March, 1996/Phalguna, 1917 (Saka)

Price: Rs. 22.00

CONTRACTOR SUBJECTIONS
ASC. NO RC: 9 4313

N5.38 328.3657

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Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Eighth Edition) and printed by Jainco Art India, 1/21, Sarvapriya Vihar, New Delhi-110016.

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<sup>\*\*</sup> Ceased to be a member of the Committee consequent upon his retirement from Rajya Sabha w.e.f. 14.6.95.

<sup>\*\*\*</sup> Ceased to be a member of the Committee consequent upon his retirement from Rajya Sabha w.e.f. 24.7.95.

#### PREFACE

- I, the Chairman of the Standing Committee on Agriculture having been authorised by the Committee to present the Report on its behalf present this Thirty Eighth Report on the subject "National Watershed Development Project in Rainfed Areas".
- 2. The Committee wish to express its thanks to the Ministry of Agriculture (Deptt. of Agriculture & Cooperation), for placing before it material and information in connection with the examination of the subject chosen, and in particular the representatives of this Department who appeared for oral evidence on 2nd February, 1996 and placed their considered views before the Committee.
- 3. The Study Groups of the Committee undertook on-the-spot study visits in July, 1995 to Anna Hazare's Ralegaon Siddhi Watershed at Pune, Operational Research Project for Dryland Agriculture at Chokkanhally and Kottigehalli Watershed in Karnataka amongst other visits to various places during the study Tours. During the Study Tours the Committee held informal discussions with representatives from State Governments and a Non-governmental Organisation (NGO). The Committee wish to express their thanks to State Governments of Maharashtra and Karnataka and the NGO at Relegaon for furnishing information desired by the Committee during the Study visits.
- 4. The Report was considered and adopted by the Standing Committee on Agriculture on March 6, 1996.

New Delhi; 6th March, 1996 16th Phalguna, 1917 (Saka) NITISH KUMAR, Chairman, Standing Committee on Agriculture.

#### CHAPTER I

# IMPORTANCE OF DRYLAND FARMING AND WATERSHED MANAGEMENT

- 1.1 Green Revolution in India has proved to be a success story. The first Green Revolution laid stress on the irrigated areas to make India self-sufficient in food grains in the shortest possible time. Efforts were by and large directed towards irrigated agriculture in view of serious food shortages and urgent need for achieving self sufficiency in the production of food grains. As a consequence of it the development of dryland farming was relegated to the background. The Second Green Revolution, the next breakthrough in agriculture, was to come out of India's vast rainfed areas. It hinges round the success with which the rain water largely accumulated during the rainy season could be reallocated throughout the year in the rainfed areas, which are also the backward regions in the country.
- 1.2 Though foodgrains production has achieved a quantum jump due to the green revolution in irrigated areas, national food security, however, still continues to be fragile in rainfed areas particularly during the period of drought when rainfed crops suffer, leading to decline in annual production of foodgrains. The estimated annual target of food production 240 m.t. by 2000 A.D., would become achievable only if our rainfed crop-lands develop to their full potential.
- 1.3 Production and productivity of irrigated crops has increased manifold but the production of oilseeds and pulses which are largely rainfed, has made little progress. The serious shortages of oilseeds and pulses and the resultant increase in their prices are assuming the proportion of crises and need to be tackled on a sustained basis. The objective of overall food availability in the country has been achieved, but the development process has created and aggravated serious unintended agricultural, socio-economic and ecological imbalances.
- 1.4 The solution to this complex problem lies in the conservation of rain water in a manner which will minimise evaporation and promote soil conservation in every farmer's field and on every square inch of village common lands through the active participation of the farmers and the village communities. Vegetative conservation measures to produce fuel, fodder, fruit and timber, as means and by-products of rain-water conservation, in addition to growing foodgrains and providing drinking water are the only effective means of setting about the task of removing poverty in the rainfed areas.

1.5 This solution is sought to be realised through the implementation of a programme known as the National Watershed Development Project for Rainfed Areas (NWDPRA) which aims at the holistic development of extensive rainfed areas which constitute 70 per cent of our cultivated land i.e. about 990 lakh hectares.

### 1.6 In short, NWDPRA is a programme for :

- Realising the project requirement of about 240 million tonnes of annual food production by 2000 AD and to smoothen out fluctuation in annual production;
- Reducing regional disparity between irrigated and vast rainfed areas;
- Restoring ecological balance in the degraded and fragile rainfed eco-systems by greening these areas through appropriate mix of trees, shrubs and grasses, and;
- Generating employment for rural masses.

1.7 The formal definition of 'watershed' which has been adopted for the purpose of this Project is as follows:

'Watershed' has been defined as, 'an identifiable and demarcable geo-hydrological unit, which is taken as geographical area for planning and development under rainfed conditions, comprising a mix of arable and non-arable land and drainage lines and used by permanent and transient populations with varying degrees of skill and commitment to long-term resource husbandry'.

#### CHAPTER II

#### ORIGIN OF THE CONCEPT OF WATERSHED DEVELOPMENT

- 2.1 Regarding the origin of the present concept of Watershed Development Project for Rainfed Areas, the Department of Agriculture and Cooperation has informed the Committee in a written note that in pursuance of the recommendations of Royal Commission on Agriculture to develop dryland farming on scientific basis four research stations were started in the early 20's of the century at Rohtak, Sholapur, Hyderabad and Bellari. These stations conducted research for about a decade and developed a total systems approach known as Rohtak Dry Farming System, Bombay Dry Farming System, Hyderabad Dry Farming System and Madras Dry Farming System. These systems included field bunding, deep ploughing allowing of land and cropping in alternate years, use of bulky organic manures and moisture conserving implements and tiller practices. The systems were popularised in late 30's and during 40's in dry farming areas. The package of practices minimised total crop failure and induced an element of stability in food production but there was no appreciable increase in the overall productivity. Moreover attention was limited only to crop land, the treatment of non-arable land and development of animal husbandry which are an integral part of the dry farming systems were not included. As a result, the technology achieved a limited success.
- 2.2 After independence, multi-purpose dams were envisaged to provide hydro-electricity for industrial development and irrigation for agriculture to achieve the urgent and sensitive task of national food self-sufficiency. During the 50's the research attention was focussed more on developing soil conservation measures to stabilise the catchment areas of these dams to prevent the siltation of reservoirs. A chain of soil conservation research demonstrations and training centres were started at various locations, namely Dehradun, Chandigarh, Agra, Kota, Vasad, Jodhpur, Utkamand and Bellari. These centres conducted valuable research on rainfall analysis and soil loss and brought out ecological potentials and problems of their region but the production system was not given due attention. As a result the projects developed on the basis of research findings succeeded in conservation of soil and water, however, production system was relegated to the background.
- 2.3 After achievement of the national goal of self-sufficiency in the matter of foodgrains through development of irrigated agriculture in

early 70's an All India Coordinated Research Project was launched at 23 participating research centres in the country. In the vicinity of these centres pilot projects of integrated watershed development were launched to test, adapt and refine the research findings. The results brought out good potential crop varieties, moisture conservation measure and inputs oriented cropping systems. Because of the inherent uncertainties in amount and intensity and distribution of rainfall and consequent risk in the dry areas coupled with the resource poor conditions of dryland farmers the technology could not be adopted in a big way. By the end of 70's it became clear that the watershed is the most critical factor and unless rain water is managed scientifically the fortune of rainfed crops would continue to fluctuate.

2.4 Therefore, in early 80's during the period of Sixth Five Year Plan, the Department of Agriculture & Cooperation launched a pilot project for propagation of water conservation/harvesting technology in rainfed areas in 19 watersheds located in 15 States representing major agro-climatic regions of the country. The Department of Rural Development also adopted this scheme and 23 watersheds were selected in the 'DPAP' areas for developing as models. Thus, a total number of 42 model watersheds were developed. The central point was water conservation and water harvesting. Good results were obtained and the need for bringing vegetative conservation measures and promoting a simple and low-cost water management technology was highlighted.

2.5 On the basis of accumulated experience the National Watershed Development Project for Rainfed Areas (NWDPRA) was launched during 7th Plan in 59 selected watersheds of the country. These watersheds demonstrated models of successful crop production. As per project design non-arable lands were to be developed by funds provided from other schemes. The funds did not come at the right time in adequate amount. It was, therefore, felt that a single window financing and task force approach is needed for sustainable development of the entire rainfed area. It was against this back-drop that NWDPRA was thoroughly restructured in 1990 before being launched during the 8th Plan.

#### CHAPTER III

#### PROGRAMME CONTENT OF NWDPRA

- 3.1 Regarding the programme content of the NWDPRA, the Committee have been informed in a written note that the project aims to achieve the twin objectives of evolution/development of sustainable biomas production systems and restoration of environmental balance in the vast rainfed areas in the country. The salient features of the project are enumerated in the succeeding paras.
- 3.2 The project pursue a holistic and comprehensive approach including conservation measures and production systems in the relationship of means and ends. Therefore, funds have been provided for all the three spatial components of the watershed, namely, arable lands, non-arable lands and drainage lines. In addition, livestock development, homestead gardens and household production systems have also been included so that diversified production systems appropriate to rainfed environment is promoted for meeting the food, fodder, fuel and cash requirement of the beneficiaries. Thus, in addition to production of rainfed annual crops, dryland horticulture, agro-forestry, pasture development, animal husbandry, poultry, fishery etc. may be included in the project dependent upon the ecological and socio-economic endowments of the area in different permutations and combinations.
- 3.3 To ensure proper and integrated development of arable and nonarable lands and drainage lines, the following programme measures would be adopted for different categories of activities for each micro-watershed project:
  - (i) ARABLE LAND: Not less than 40% of the cost of works in the individual project. The programme components will include both conservation-treatments and production systems that can be sustained by pattern of rainfall/availability of moisture.

#### Conservation Measures

- Vegetatives hedges with ridge and furrows to filter runoff water and control soil erosion with more reliance on vegetative measures.
- Repair of existing conservation structures including inter-bund treatments.
- Contour cultivation for in-situ moisture conservation throughout the field.

- Opening of contour dead-furrows at appropriate intervals to trap the moisture for recharge of the soil profile.
- Measures for gully control.
- Organic farming and integrated nutrient management systems including use of legumes, bio-fertilisers and bulky organic manures to promote moisture holding capacity of the soil.

#### **Production systems**

 Diversified production systems including mixed cropping, intercropping, crop sequences, alley cropping agro-forestry, contingency cropping, dryland horticulture, cultivation of fodder etc., agroforestry and grasses, legume cropping on marginal lands, demonstrations, household production systems.

## (ii) NON-ARABLE LANDS INCLUDING DRAINAGE LINES: Not less than 50%.

This Category will include culturable wastelands, barren wastelands, permanent pastures and grazing grounds, etc.

#### Conservation Measures

— Contour vegetative hedges/contour furrows to conseve moisture.

#### **Production systems**

- Overseeding of grasses and legumes for forage and pasture development.
- Planting of shrubs for fodder and fuel.
- Planting of trees in silvi-pastoral systems.

#### (iii) TREATMENT OF DRAINAGE LINES:

- Clearance of drainage congestions by deepening water bodies and creating a network of ponds to promote fisheries and development in aquatic farming systems in low lying areas.
- Stabilisation of nala banks primarily with vegetative measures; shrubs and grasses to be promoted according to soil depth and moisture.
- Construction of dugout check dams and series of small run-off management structures. In upper and middle reaches vegetative

barriers, brushwood dams, loose boulder dams, earthen dugout bunds fortified with vegetation would be planned and implemented. The cost of such a structure will vary from Rs. 500–7500 starting from higher points on drainage lines. At the lower reaches of drainage lines, the cost of individual water storage structures will not exceed Rs. 25000/- or a given cost per unit of storage capacity developed whichever is less. In one State, the given cost has been fixed at Re. 1 per cubic meter of storage capacity.

#### (iv) LIVESTOCK MANAGEMENT: -Not less than 10%.

Livestock production is more important under certain agro-climatic conditions in arid and semi-arid regions. However, livestock rearing is an integral part of the rainfed farming systems everywhere in India and specific measures should be planned and implemented to regulate the livestock population and enhance their productivity. The following components may be included in the projects:

### Livestock population control through:

- castration of scrub bulls and other means-2%.
- production of fodder on cultivated lands-8%.

The health care activity should be provided through regular Animal Husbandry Department. The above mentioned treatments are indicative. The actual details of treatments would be decided in consultation with the beneficiaries in consonance with the capability of the land and need/compulsion of the people within the overall limits for plains and hilly watersheds. The basic principle is "develop land according to its capability and treat it according to its needs in a manner which will meet the people's needs in the most sustainable way".

3.4 All the community development blocks in the country with less than 30% of the arable land under assured means of irrigation would qualify for inclusion in the project without any higher or lower rainfall limits. In each of the selected blocks, a micro-watershed ranging from 500 to 5000 ha. would be taken up for development as a model of sustainable farming systems.

3.5 Under the project, low cost, simple and replicable technology of conservation of land and water resources with higher reliance on vegetative measures is being propagated for erosion control and in-situ moisture conservation, in order to ensure that farmers with average means could afford to adopt them.

#### Cost Norms

- 3.6 During the Study Tour of one of the Study Groups of the Committee to Maharashtra in July 1995, the representatives of the Government of Maharashtra submitted that there appeared to be some necessity for making some changes in the technology to be adopted in NWDPRA particularly in drainage line treatment and in the cost norms of these treatment structures. The State Government felt that in some cases the run-off management structures cost much beyond the cost-ceiling limit fixed by the Union Government and the stipulation might have to be modificed in special cases.
- 3.7 During the Study Tour of another Study Group to Bangalore, the State Government of Karnataka felt that in some exceptional cases, some engineering structures might be permitted to have better run-off management structures.
- 3.8 Regarding this point, the representative of the Department of Agriculture and Cooperation stated during evidence held on 2nd February, 1996 as under:

"One important point I would like to bring to your notice is that soil/water conservation is an important component of this project. It is one of the basic objectives. Now the traditional approach was to go in for costly engineering structures. This has completely been given a go-by in this Project. We found that the earlier technology was costly, it was complex, it had limited scope for replication. Then, we found that there were frequent breaches in structures so that the system became ineffective. In fact, what happened was that instead of improving the situation, it was, in a way, aggravating soil erosion. These structures were not being maintained by the farmers. These were maintained by the Engineering Departments. This had its inherent difficulties. Also because of the tropical conditions, these structures developed some problem and they collapsed. It was decided to have a new technology under this Project."

#### Focus on Weaker Sections & Special Problem Areas

3.9 Regarding the focus of the programme on Women, Scheduled Castes, Scheduled Tribes and Socially and Educationally Backward Classes, it has been stated in a written note that while selecting the microwatersheds for treatment, priority is given to those areas which are having pre-ponderance of small and marginal farmers, SCs, STs and backward classes. These weaker sections have also been involved in the planning, implementation and monitoring of the project as out of 5 Mitra Kisans

selected from each village in a micro-watershed, two are landless labourers and two are women. Besides, hamletwise and activitywise Self-Help-Groups for women, SCs, STs and other backward classes are also being constituted to take up various programme measures under NWDPRA.

District level and watershed level trainings are being imparted to women for taking up various activities in the household production system. Training to one landless person known as 'Gopal' in the activities related to livestock development such as castration of scrub bulls is also being imparted under the project.

- 3.10 Regarding areas with special problems, the Ministry has already initiated necessary action to take up watershed development project in special problem areas. So far 16 micro watershed projects in case of Uttar Pradesh and 4 in case of Tamil Nadu have been sanctioned.
- 3.11 The special problem areas include water logged areas of Himalayan foothills in Uttar Pradesh, Bihar, Assam, Coastal saline areas in literal States. Shivalik eco-system of Himalayas, ravinous ecosystem in Uttar Pradesh and Madhya Pradesh. Keeping in view the special nature of treatment measures a provision of upto Rs. 10,000 per ha. (Rs. 5000 per ha. to be met from project, and remaining from Institutional finance) has been kept for such project.

#### **Funding**

- 3.12 Regarding the funding arrangements for NWDPRA, the Committee have been informed in a note that the Government of India is providing 100 per cent assistance comprising 75 per cent Grants-in-Aid and 25 per cent loan to the State Governments. In the case of the Union Territories without legislature, 100% Grants-in-aid assistance is given. Regarding the loan component, the period of loan is 20 years and the mode of payment has been specified with a rate of interest of 13 per cent per annum.
- 3.13 The Planning Commission has provided an outlay of Rs. 1100 crore for NWDPRA for 8th Plan period as per projections made by the Ministry. When asked whether the Planning Commission had reduced the requirement projected by the Ministry of Agriculture for the 8th Plan, the Committee were informed that the Planning Commission had not reduced the outlay.

#### CHAPTER IV

#### PEOPLE'S PARTICIPATION

- 4.1 When asked about the steps taken by the Government to make NWDPRA a people's programme, the Committee have been informed in a written note that with a view to facilitate promotion of people's participation, certain well-defined institutional arrangements have been made under the project and necessary guidelines for implementation of this approach has also been circulated to all the participating States/UTs under the project for compliance. The Watershed level participatory organisation for this purpose is known as "Mitra Krishak Mandals" which is constituted of about 25-30 Mitra Kisans and Gopals representing 5 to 6 villages in each of the watershed. Realising that Mitra Krishak Mandal is an effective means for organising and mobilising the watershed community, instructions have been issued to all the participating States/ UTs that an amount of Rs. 10,000 from the project fund be passed on to the Bank accounts of Mitra Krishak Mandals for the purpose of beneficiary oriented activities with special emphasis on household production systems. Such activities as contemplated to be organised through Mitra Krishak Mandals are being promoted through formation of Self-Help Groups.
- 4.2 In order to promote People's participation, a tripartite Memorandum of Understanding (MOU) has been evolved by the Government of India where in the best elements of Government functioning as well as Non-Government Organisation (NGO) functioning are combined effectively to bring out the best possible results, which would normally not be possible when either of them is the implementing agency.
- 4.3 The Government system is efficient in book keeping, accounting and technology, whereas Non-Government Organisation (NGO) system is good in inspiring people. Besides, they possess dedication and commitment for local services. The local people have cumulative wisdom, skiils and knowledge of production environment; encompassing land, water, vegetation, etc. The institutions involved in Memorandum of Understanding (MOU) include:
  - (a) The Watershed Community represented by its President or Secretary, Mitra Krishak Mandal. The Watershed Community, consists of a group of Mitra Kisans, five from each village of the micro watershed.

- (b) NGO or voluntary agency represented by the managing trustee; and
- (c) Government represented by a Class-II level officer of the development department or an officer of higher level as the case may be.
- 4.4 NGOs involvement in the Project is with regard to:
  - (i) creation of awareness regarding farming systems approach;
  - (ii) training of field functionaries and beneficiaries and preparation of training material for farmers;
  - (iii) evaluation and monitoring of project activities and their impact from people's point of view;
  - (iv) Promoting self-help thrift groups hamlet-wise, to manage composite nurseries and take up greening of degraded land;
     and
  - (v) enhancing and strengthening the role of farm women particularly their leadership in decision making for watershed development.
- 4.5 Regarding the involvement of Panchayati Raj institutions with NWDPRA, it was explained during evidence as follows:

"Sir, another important aspect is involvement of the Panchayati Raj institutions with the monitoring of this Project. At the Block level there is a provision for the constitution of a Block level Committee under the Chairmanship of the Block Pranukh with the village Pradhans as its members. This Committee generally meets once a year to review the progress of implementation. This forum is expected to be utilised as an effective supervisory and monitoring level for the Panchayati Raj institutions. But at the Panchayat level also, it is expected that Panchayats will undertake monitoring and supervision of the project implementation at the micro watershed level. I would also like to mention that as far as implementation is concerned, no specific role has been assigned to the Panchayats; their role is confined to monitoring and supervision."

4.6 Regarding the need for people's participation at the maintenance phase of the project, it was stated during evidence as follows:

"I would like to repeat one point that we would like to maximise the participation by the people in this project because we are fully convinced that, that is the way to make not only the implementation of the project to be effective but is also necessary for the maintenance of the assets created. It is only with people's participation that the development can be sustained."

- 4.7 When asked as to whether any assessment has been made of the value of assets created so far in each of the watersheds and how the assets created are being maintained, the Committee have been informed that the various activities being carried out under the project are at various Stages of implementation and Inventory of assets has not yet been taken up and the same will be considered after saturation of first lot of watersheds. As per the provision made under the project, the Mitra Krishak Mandals and Self-Help-Groups of beneficiaries have to maintain the assets created in the watersheds.
- 4.8 During the study tour of a Study Group of the Committee to Bangalore in July, 1995, the representative of the Karnataka Government explained that once the project was over the local community was responsible for the maintenance of the infrastructure created during the project period in the watershed. He further added that there had been general expectation on the part of the people that the Government would continue to maintain the boulder check-dams, bunds and the Agro forestry vegetation etc. created during the project period. Generally, the project lands were maintained by the local sanghas. Since the contour bunds did not coincide with the farm boundaries of the farmers there was difficulty in sustaining the interest of the farmers in the conservation of the bunds.
- 4.9 The Study Group was further informed that the 3 tier panchayat arrangement had now come into being in the State recently and, as such, it was hoped that the local bodies would come forward to maintain the structures created in a watershed and they would also help in the adoption of various watershed development/treatment measures. The State Government could also think of supplementing the resources of the local bodies for the purpose of maintenance of the watersheds. The State Government also felt that at least for 2 years after the completion of a project, the maintanence work in the project areas should be carried out with the funds from the Union Government at least on a matching basis so that the structures created during the project are allowed to stablise and people's participation was secured to maintain the structures by them.

#### CHAPTER V

#### PROGRAMME COVERAGE

5.1 The Committee have been informed in a written note that the NWDPRA was launched in 1990-91 and it is being implemented by all the 25 States and 2 UTs. The Union Territories of Lakshadweep, Daman & Diu, Pondicherry, Chandigarh and Delhi have not taken up NWDPRA due to non-availability of watersheds/eligible blocks.

5.2 When asked about the area covered by NWDPRA during Seventh and Eighth Five Year Plans in each State and the net rainfed arable area in each State, the following statement was submitted to the Committee:

No.	State/U.T.	Net Rainfed arable area	Area Covered during 7th plan (ha.)	Area proposed to be covered during 8th plan (ha.)
1	2	3	4	5
1.	Andhra Pradesh	6964000	171734	191949
2.	Arunachal Pradesh	96000		1970
3.	Assam	2124000	3982	104973
<b>4</b> .	Bihar	4848000	_	<i>7</i> 7421
5.	Goa	110000	_	3808
6.	Gujarat	7343000	93272	334261
<b>7</b> .	Haryana	1427000	15161	18725
8.	Himachal Pradesh	485000	1268	37240
9.	Jammu & Kashmir	426000	_	22000
10.	Karnataka	8856000	106958	357607
11.	Kerala	1913000	6938	88276
12.	Madhya Pradesh	1,61,95,000	14282	749641
13.	Maharashtra	1,60,83,000	94312	448827
14.	Manipur	75000	_	6821
15.	Meghalaya	14300		4110
16.	Mizoram	57000	_	17666

1	2	3	4	5
17.	Nagaland	133000		14125
18.	Orissa	48,22,000	5369	3,88,875
19.	Punjab	568000	2488	19270
20.	Rajasthan	12011000	34203	533939
21.	Sikkim	62000	_	7031
22.	Tamilnadu	3148000	3478	176390
23.	Tripura	217000		7634
24.	Uttar Pradesh	7369000	50272	327716
25.	West Bengal	3361000	275	96953
26.	Dadra & Nagar Haveli	23000	_	692
27.	Andaman & Nicobars Islands	33000	_	2669
28.	Other Union Territories	44000		
	Total	98936000	549991	4035589

(0.55% of total rainfed area) (4.079% of total rainfed area)

5.3 Regarding the State-wise details of Micro-watershed Projects sanctioned and the area covered, the following statement was furnished to the Committee:—

developme	or sanctioned ent by State Level Sanctioning Committee	
1 2 3	4	5
1. Andhra Pradesh 94	94	191949
2. Arunachal Pradesh 3	3	1970
3. Assam 110	110	104970
4. Bihar 209	178	<i>7</i> 7421

1	2	3	4	5
5.	Goa	4	4	3808
6.	Gujarat	168	168	334261
7.	Haryana	5	5	18725
8.	Himachal Pradesh	58	58	37240
9.	Jammu & Kashmir	44	44	22000
10.	Karnataka	-85	85	357607
11.	Kerala	114	-114	88276
12.	Madhya Pradesh	385	385	749641
13.	Maharashtra	266	266	443827
14.	Manipur	5	5	6821
15.	Meghalaya	8	8	4110
16.	Mizoram	20	20	17666
<b>17</b> .	Nagaland	28	28	14125
18.	Orissa	258	258	388875
19.	Punjab	13	13	19270
<b>2</b> 0.	Rajasthan	204	204	533939
21.	Sikkim	12	12	7031
22.	Tamilnadu	88	88	176390
23.	Tripura	17	17	7634
24.	Uttar Pradesh	205	204	327716
25.	West Bengal	170	119	96953
26.	Dadra & Nagar Haveli	3	3	692
27.	Daman & Diu	_	_	_
28.	Andaman & Nicobar Islands	4	4	2669
	Total	2563	2497	4035589

- 5.4 Regarding the target fixed for the area covered and the achievement thereof, it has been stated in a note that during 8th Plan an area of 28 lakh ha. was targeted to be covered against which an area of 40.34 lakh ha. has been covered under the micro-watershed projects approved so far. The coverage of more area has been possible because of per ha. requirement of funds under the approved projects being less than the per ha. cost ceilings.
- 5.5 During evidence, the Committee pointed out that the present concept of the project was confined only to rainfed areas and desired to know whether the concept would be expanded to cover irrigated areas all over the country where the underground water resources are dwindling at a fast rate and then only such a concept would be in conformity with the present nomenclature 'National' Watershed Development Project. It was also pointed out that it would be more advisable to adopt a more comprehensive and holistic approach, as watershed management is aimed not only at conserving moisture and rain to create irrigation potential but also at controlling floods on a national scale and the basic objective of the entire scheme is to harvest rain water wherever it falls and not to allow it to assume a destructive character resulting in erosion of top soil, water logging etc.

5.6 In response to this suggestion, the representative of the Department of Agriculture & Cooperation stated as follows:—

"Thank you, Mr. Chairman, the Hon. Member has raised a very important point. I would like to bring to your notice that in the context of formulation of the Ninth Five Year Plan, the Planning Commission has set up a number of Working Groups for the entire Governmental activity. As far as the Ministry of Agriculture is concerned, 15 Working Groups have been set up by the Planning Commission. Two of these relate to what is under discussion today, and also specifically relevant to the point raised by the Hon. Member. One of them is for rainfed areas and the other is for irrigated areas. We will be placing before these Working Groups, of both of which I am the Chairman, the material that we have collected so far in relation to the implementation of this Project so that the Working Groups will definitely go into the aspects raised by the Hon. Member and, I hope, will come out with proper recommendations for implementation in the next Five Year Plan.

I may also mention that with these Working Groups and without other activities related to this matter, we shall see that the Ministry of Water Resources is also duly associated so that we have the benefit of its wisdom as far as matters relating to floods etc. are concerned.

Sir, as I mentioned, the Working Groups set up by the Planning Commission have been specifically entrusted with the task, among other things, of reviewing the implementation of the schemes under the current Five year Plan with a view to suggesting improvements for adoption during the next Five Year Plan. So, the guidelines, which have already been evolved, will be reviewed in the light of the recommendations of the Working Groups and wherever necessary, improvements will be effected."

#### CHAPTER VI

#### EIGHTH PLAN ALLOCATION & UTILISATION

- 6.1 In a Statement furnished to the Committee, it has been observed that out of Rs. 1100 crores of Eighth Plan outlay, a total of Rs. 474.23 crores was released to the States from 1992-93 to 1994-95. Out of this amount, a total of Rs. 463.77 crores has been utilised by the States in the first three years, which is only 43.09 percent of the total Eighth Plan allocation. In the fourth year of the Eighth Plan i.e. 1995-96, out of an allocation of Rs. 188 crores, the amount released was 25.27 crores upto 1 August, 1995. The State-wise details of the allocation and expenditure in respect of NWDPRA are given at Appendix I. The State-wise details of estimated cost of Project, amount released and spent are given at Appendix II.
- 6.2 The grants to the States are released in a need-based manner taking into account the cost of approved projects, utilisation reports and extent of unspent balance; States release to districts and the latter to Watershed Development Team as per existing scale of activities. Cost norms and ceiling for each activity are laid down. Average cost per hectare works out to be Rs. 2707.
- 6.3 It may be seen from the Statement at Appendix II that the State Government of Bihar could utilise only 23.5 per cent of the total funds released to the State, while Dadra & Nagar Haveli could utilise only 5.5 percent of the total funds released from 1990-91 to 1994-95. Meghalaya could utilise only 37.2 percent of the total funds released during the period.
- 6.4 When asked to explain the reasons for shortfall in the utilisation of the amount released, the Department of Agriculture and Cooperation stated in a written note that the progress was slow in the initial years due to preparatory time taken in putting the projects on the ground such as, identification of the project sites, preparation and approval of microwatershed projects, making institutional arrangements and some State Governments not releasing funds in time. In some States like Bihar, West Bengal, Meghalaya and Nagaland the project implementation has still not picked up desired tempo but has registered improvement over the previous years.
- 6.5 During the evidence held on 2 February, 1996, the representative of the Department of Agriculture and Cooperation further explained that

since the project was sanctioned in October, 1990, a sum of Rs. 230.37 crores was released during the 1990–91 and 1991–92, and no targets were fixed. Besides a sum of Rs. 8.20 crores was available as unspent balance of 7th Plan. Thus a total sum of Rs. 1338.64 crores (which includes Rs. 1100 crores, plan allocation during the 8th Plan) was available for implementing the project during a period of 7 years. It is estimated that a sum of Rs. 1150 crores will be spent upto the end of the 8th Plan. Budget estimates of Rs. 198 crores has been provided during 1994-95 whereas during 1995–96 Rs. 188 crores have been provided.

6.6 Regarding the steps taken for the speedy utilisation of the funds, it was added during evidence as follows:

"As far as these factors, which I called constraints in the speedy utilisation of the funds, are concerned, we have had a continuing dialogue with the States not only through correspondence but also in meetings at the national level and at the regional level or at the State level. Some problems were brought to our notice which required action by us. Basically, our approach has been that in the project of this kind, which has very wide geographical spread, the State Governments should have adequate flexibility for implemention and at the same time, ensure that the Central Government has to keep itself informed of the action being taken."

6.7 Elaborating the reasons for the slow pace of expenditure and the steps taken to improve the pace of implementation, the Committee have been informed in a written note that though the NWDPRA was sanctioned in October, 1990, initial years i.e. 1990-91 and 1991-92 were devoted to put the project on ground and following activities were undertaken:

- Dissemination of information about project's concept, approach and strategy.
- Constitution of State Watershed Development Policy Committees, District Co-ordination Committees and multi-disciplinary Watershed Development Teams for planning and implementation of the project.
- Identification of project areas, their survey and projectisation.
- Sanction of model micro-watershed projects one for each agroclimatic zone by Govt. of India.
- Preparation of other projects by the State Government on the pattern of model projects and their sanction by the State Level Sanctioning Committees.

- Bringing about attitudinal changes in the field functionaries and beneficiaries from the conventional soil conservation technology to the simple, low cost, affordable and replicable technology based on the accumulated wisdom and skill of the watershed community.
- Constitution of Mitra Krishak Mandals, Self-Help Groups in order to enable the people's participation.
- 6.8 In subsequent years, delay in access to funds to Watershed Development Teams by the State Finance Department in some of the States such as Arunachal Pradesh, Assam, Bihar, Meghalaya, and West Bengal emerged as a major bottleneck. The State Government of these States were requested at various levels i.e. Union Minister of Agriculture, Secretary (Agriculture & Cooperation), Additional Secretary (Agriculture & Cooperation) and Joint Secretary (Rainfed Farming) to take appropriate measures to ensure that adequate funds are made available by the State Finance Department to the Watershed Development Teams so that the project may not suffer due to lack of funds. Due to these intensive efforts made by the Govt. of India in this regard, an overall perceptible improvement has been noticed in releasing the funds to the Watershed Development Teams. In the State of Bihar, however, the problem is still not completely solved but has registered improvement over the previous years.
- 6.9 Since the project is implemented by the multi-disciplinary Watershed Development Team in consultation with farmers in the initial years, there was an operation difficulty as other line departments were not appreciating the approach followed under the project. Comprehensive training programme launched for the subject matter specialists has helped in better understanding of the programme by other line departments and now they have started adopting the single window financing and task force approach being followed under the project.
- 6.10 In order to further improve the pace of implementation of the project, detailed guidelines were issued on various aspects of Watershed Development such as establishment of composite nurseries, research and training.
- 6.11 Reviews at national, regional and State level have been extensively undertaken to review the progress, speed up the pace and improve quality of implementation of the project. So far 2 national reviews, 4 regional reviews and 40 State level reviews have been conducted.

- 6.12 Other steps taken up by the Govt. of India to further improve the pace of implementation are :
  - In the inter-state review held at Ministry's level on 5.1.96 in which 14 major States under the Chairmanship of Secretary (Agriculture & Cooperation)/Additional Secretary (Agriculture & Cooperation) participated, the States were urged to speed up implementation.
  - Taking up additional areas contiguous to existing microwatersheds. In case of North-Eastern State, it has also been decided to allow taking up of new watersheds also on non contiguous basis.
  - 3. Taking up additional components such as strengthening of infrastructure, encouraging judicious use of rainwater by using sprinklers and alkathene pipes and some additional conservation measures and production systems, keeping in view the local needs and in consultation with Mitra Krishak Mandals.

6.13 As a result of intensive efforts made by Govt. of India the improvement has also been noticed in the utilisation of funds by the States/UTs as is evident from the following table:

Funds Released/ Utilised	Annual Plan 1990–91 & 1991–92	Ist 3 Years of VIIIth Plan	4th Year VIIIth Plan	Total
Total release by Govt. of India	238.57	474.23	104.38	817.18
Funds utilised by the States	107.76	464.77	115.42	687.95
%age utilisation	45%	98%	111%	84%

<sup>6.14</sup> Regarding the possible alternatives to ensure that the funds reach the implementing agency at the block level quickly, the Committee have been informed that two alternative proposals, regarding release of funds to the State Governments were suggested to the participating States i.e. (i) release of funds directly to the DRDAs (ii) existing system to continue i.e. to the State Finance Department. So far only 8 States viz. Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Tamil Nadu, Tripura, Nagaland and Union Territory of Andaman & Nicobar have responded

in this regard out of which only Tripura has favoured release of funds through DRDAs. The State of Gujarat suggested the present practice to continue or the direct release to the Gujarat State Land Development Corporation. The State of Nagaland has favoured release of funds through Implementation Committee headed by the Chief Secretary. Other States have favoured present system to continue. The matter is being pursued further.

#### **CHAPTER VII**

#### **GUIDELINES AND TRAINING**

7.1 In a note furnished to the Committee it has been stated that the following guidelines have been issued to the State/UTs:

1.	WARASA	Guidelines-National Watershed Development Project for Rainfed Areas (NWDPRA).
2.	WARASA-2	A manual of Monitoring and Evaluation for NWDPRA and guidelines on NGO participation.
3.	WARASA-3	Research support to National Watershed Development Project for Rainfed Areas (NWDPRA).
4.	WARASA-4	Proceedings of the National Review of NWDPRA project held at Jaipur.
5.	WARASA-5	Guidelines on Composite Nurseries.
6.	WARASA-6	Proceedings on Regional Reviews of NWDPRA held at Guwahati on 14th–16th December, 1993 and at Bhopal on 11th–13th January, 1994.
7.	WARASA-7	Training Manual on NWDPRA for Mitra Kisans and Soil Conservation Inspectors/Sub-Inspectors/Agriculture Development Officers at Block/Watershed levels.
8.	WARASA	NICNET Based Monitoring System for NWDPRA.
9.		Guidelines for Planning and Implementation of Livestock Development Components and Allied Activities in the project areas.
10.		Organic Farming-Selected Lectures.

7.2 The Committee pointed out that there are conflicting guidelines issued on Watershed development by the Ministry of Agriculture and by Ministry of Rural Areas and Employment and by Ministry of Water Resources and desired to know if any steps had been taken to have

common and/or uniform guidelines on the subject. In response to this query, the Department of Agriculture and Cooperation has informed in a written note that there is one set of guidelines for the watershed development schemes of the Ministry of Rural Areas and Employment and another set for NWDPRA being implemented by the Department of Agriculture & Cooperation.

The objectives of the watershed projects laid down in these guidelines vary as in the former, the emphasis is on employment generation whereas in the later it is on *in situ* moisture conservation.

To sort out the issue, a meeting was held on 3.11.95 under the Chairmanship of Additional Secretary (Agriculture & Cooperation) in which the representatives of Ministry of Rural Areas and Employment also participated. In the meeting, it was agreed to that areas of divergence in the strategy for watershed development be narrowed down.

In order that further discussions in this regard are held in a time bound manner, it was proposed to the Secretary (Department of Rural Areas and Employment) that Additional Secretary (Agriculture & Cooperation) may chair the meetings in which the Joint Secretary of the Deptt. of Agriculture & Cooperation and Ministry of Rural Areas and Employment may participate. Response in this regard is awaited.

This matter is also being discussed in the deliberations under the 25 Year Perspective Plan for the watershed development and working group on formulation of IXth plan for Rainfed Areas.

7.3 When asked about the role played by the Union Ministry of Agriculture in the matter of imparting training to the personnel responsible for implementation of NWDPRA both at State and Central levels, the Committee has been informed in a written note that Training is an integral component of NWDPRA. A planned and systematic effort has been made by the Union Ministry of Agriculture to train the project implementing agencies at various levels for quantitative and qualitative improvement in implementation of programme measures under NWDPRA. The training effort was launched in two phases. In the first phase, a two day training programme was conducted during the last quarter of 1994 in all 25 States and 2 UTs involving training orientation of district level subject matter specialists from all line departments. Resource persons from Agriculture Ministry conducted these trainings. Subsequently, in the second phase, the trained personnels would train Mitra Kisans and other field staff of NWDPRA by the end of 1995.

7.4 The Ministry of Agriculture have also conducted three comprehensive and combined training courses on various programme measures of NWDPRA for the States of Uttar Pradesh, Madhya Pradesh

and Orissa at Haridwar associating Yug Nirman Mission. Similar trainings have also been organised for other States and would be completed by January, 1996.

7.5 Ministry of Agriculture brought out Training Manual on NWDPRA (WARASA 7) for Mitra Kisans, Soil Conservation Inspectors, Sub-Inspectors and Block Development Officers.

7.6 When asked to indicate if there is any special orientation given to the concept of NWDPRA in favour of women, Scheduled Castes, Scheduled Tribes and Socially and Educationally Backward Classes, it has been stated in a note that under NWDPRA training is imparted to the Watershed community including women, in which Scheduled Castes and Scheduled Tribes and Socially and Educationally Backward Classes are included. Guidelines for forming exclusive self-help groups of women to promote household income generating activities have also been issued to all the States.

7.7 A statement showing State-wise number of Mitra-Kisans, Gopals, number of village level functionaries, etc. trained upto April 1995 under 6 day comprehensive Training Courses on NWDPRA is given below:—

		-				
S. No.	Name of the State/UT	No. of Field Func- tionaries	No. of Mitra Kisans/ Gopals	No.of Mahila Mitra Kisans	NGO and others	Total
1.	Andhra Pradesh	704	976	530	6	2304
2.	Assam	70	1400	92	_	1578
3.	Gujarat	231 11	374 + 4 (Gopals)	41	100	940
4.	Himachal Pradesh	201	181	99	561	
5.	Nagaland	_	_	_	252	
6.	Orissa	833	1218	814	2865	
<b>7</b> .	Rajasthan		_		1278	
8.	Uttar Pradesh	1493	3017	1015	6325	
9.	Andaman Nicobar Islands	25	8	1	34	
10.	Punjab	170	245	114	529	
	Grand Total	3095	8341	2714	106	16666

#### CHAPTER VIII

#### ESTABLISHMENT OF NURSERIES AND BARANI CHETNA KENDRAS

8.1 Regarding the establishment of nurseries to provide seeds/seedlings of conservation flora, forestry, horticulture, grass and legume species at the doorstep in the watershed area and also the setting up of Barani Chetna Kendras in composite nurseries to act as community centres where farmers could meet and share their problems and experiences among themselves and with the field workers, it has been stated in a written note submitted to the Committee that under each of the micro-watershed projects a composite nursery with Barani Chetna Kendra is targetted to be established. In all 1426 composite nurseries have been established so far, the following State-wise details have been furnished in this regard:—

S. N	o. Name of State	Composite Nursery	Kisan/ Mahila Mandal Nursery	Govt. owned Nursery	Grand Total
1	2	3	4	5	6
1.	Andhra Pradesh	51	49	10	110
2.	Arunachal Pradesh	3	_	-	3
3.	Assam	75	124	_	199
4.	Bihar	_	_		
5.	Gujarat	138	77	24	239
6.	Goa	<b>—</b> 5	_		_
7.	Haryana	5	_	-	5
8.	Himachal Pradesh	11	26	26	63
9.	Jammu & Kashmir	6	19	9	34
10.	Karnataka	11	87	15	113
11.	Kerala		457	1	458
12.	Madhya Pradesh	322	40	16	378
13.	Maharashtra	69	92	33	194

1	2	3	4	5	6
14.	Manipur	5	51		56
15.	Meghalaya	8	3	_	11
16.	Mizoram	20		20	40
17.	Nagaland	28	_	_	28
18.	Orissa	258			258
19.	Punjab	10		8	18
20.	Rajasthan	76	230	24	330
21.	Sikkim	12	4	_	16
22.	Tamil Nadu	84	84	_	168
23.	Tripura	5	_	13	18
24.	Uttar Pradesh	186	_	_	186
25.	West Bengal	42	_		42
26.	Andaman & Nicobar Island	1		_	1
27.	Dadra & Nagar Haveli		_		
	Total	1426	1343	199	2968

8.2 It has been further stated in the note that in some States the progress has been slow due to non-availability of lands. The State Governments have been advised to make efforts to acquire land and establish the nurseries at the earliest.

#### Other Nurseries

In addition to composite nurseries, the project has a provision of establishing Kisan Nurseries and also strengthening their departmental nurseries. So far 1343 Kisan Nurseries have been established and 199 departmental nurseries have been strengthened.

8.3 During the Study Tour of a Study Group of the Committee to Bangalore, the representative of the Karnataka State Government explained the difficulties in the setting up of the composite nurseries by the State and stated that the activity could not be taken up sufficiently due to non-availability of lands for the State Agriculture Department. Therefore, setting up of Kisan Nurseries was encouraged as an alternative

measure. The Study Group desired that State Agriculture Department should approach the District Revenue Authorities for identification of proper lands and to make them available to the Agriculture Department for the setting up of the composite nurseries. The Additional Chief Secretary, however, felt that the newly elected zila panchayats would be enthusiastic in taking up watershed development measures and they could be persuaded to earmark land for the composite nurseries.

8.4 Regarding the cost norms in respect of block plantations in agro forestry, the State Government felt that the guidelines should be revised to bring it at par with the cost norms adopted by the Ministry of Environment and Forests.

#### CHAPTER IX

#### MONITORING ARRANGEMENTS

- 9.1 When asked to explain the mechanism available for monitoring the implementation of the programme at the Central and State levels, the Committee has been informed that the Government of India is monitoring the progress of the project through National Reviews, Regional Reviews and State Level Reviews. In addition, the progress is also being monitored on quarterly basis through the network of National Informatics Centre (NICNET) for which a computerised programme has been developed and provided to all the States/UTs. So far 3 National Reviews, 4 Regional Reviews and one round of State Level Reviews for all the 25 States and 2 UTs have been completed. The State Governments are being advised to take up corrective measures during the above mentioned reviews and also through follow up letters.
- 9.2 In reply to a query about the monitoring arrangement in the States, the Committee have been informed that a 4-tier system of monitoring has been evolved, the details of which are as under:—

#### (i) State Level

For State level reviews, a joint team comprising a Senior Officer of Rainfed Farming Systems Division of Ministry of Agriculture, a Scientist from ICAR/State Agriculture University and a Senior Officer of the rank of Joint Secretary from the State Government is constituted. The team undertakes thorough field monitoring/review and recommends corrective measures for improving the implementation of the project.

#### (ii) District Level

District level review and monitoring functions are discharged by District Coordination Committee constituted of Officers of the rank of Principal Agriculture Officer/Deputy Director of various line Departments. The Committee is chaired by Dy. Commissioner/Chief Development Officer/Dist. Dev. Officer.

#### (iii) Block Level

At the block level there is a provision of having a Supervisory Committee headed by the Block Pramukh with Pradhans of participating villages as members B.D.O. as Vice-Chairman and the leader of the Watershed Development Team being the convenor of this Committee.

## (iv) Micro-watershed-Level

NWDPRA guidelines provide for reviewing the progress in implementation of watershed development programmes periodically by the Mitra Krishak Mandal.

- 9.3 The Committee desired to know during evidence as to whether any arrangement existed to verify that the physical structures have been created as a result of utilisation of funds, as obtaining paper certificates about utilisation of funds was not a sound practice.
- 9.4 The representatives of the Department of Agriculture and Cooperation replied as under:—

"The point raised by the Hon. Member is a very valid one. If I may say so, there is a distinction between spending funds and utilising funds. The funds have to be utilised for the purpose for which they have been sanctioned. This is the basic objective of the scheme. Physical parameters which have been laid down must be achieved. Only then it would be possible to say that the funds have been utilised.

As I mentioned, there is a provision for a four-tier monitoring at the Panchyat Level, the Block Level, the District Level and the State Level. This is apart from the National Level collection, compilation, consolidation and analysis of the information from the States. Physical parameters have also been laid down and I have got a statement compiled in very broad terms on what has been achieved in physical terms. I would like to highlight the position in this regard.

Sir, as I mentioned, the activities to be undertaken under this project have been classified under different heads. I refer to what I called the basic activities for which the funds earmarked are 40% of the total allocation.

## Basic activities

In respect of basic activities like establishment of composite nurseries and Barani Chetna Kendras, the States of Orissa and Uttar Pradesh have achieved 100% targets and some other major States like Madhya Pradesh, Gujarat and West Bengal have achieved over 75% targets.

## Arable land

Overall achievement in respect of *in-situ* measures like contour vegetative measures, gully control, repair of existing conservation measures etc. is over 55%. The achievement in States such as Uttar Pradesh, Gujarat, Assam, Maharashtra is 60 to 70%. Under production measures the achievements in respect of crop demonstration is 100%. The achievement in Agro-forestry and dryland horticulture is more than 60%. The achievement under organic farming, homestead and household production systems is more than 60%.

## Non-arable land

The achievement under conservation measures is generally over 60%. The performance of States like Uttar Pradesh, Maharashtra, Orissa, Andhra Pradesh and Rajasthan is better, compared to the other States. A similar trend is discernible under production systems also.

## Drainage line treatment

In this case, the achievement ranges from 50 to 70%.

In the case of livestock management, unfortunately the achievement is rather low.

What I have summarised and presented to you is the broad picture which is based on a detailed analysis. We have the State-wise and activity-wise analysis."

9.5 When asked to explain as to what actually takes place during the Regional Review Meetings, the representative of the Department of Agriculture and Cooperation stated as under :—

"Sir, we had a number of regional reviews. In the current year, we had one review meeting in Kodaikanal for southern States. We are going to have a regional review meeting from 14th to 16th of this month itself. Normally the regional review is for three days. One day is exclusively for field visit where not only officials from the Government of India will go but also officials from other States will also go. Normally the regional review meeting is for three days. One day is exclusively for field visit where not only officials from the Government will go but also officials from other states will also go. Normally in the regional review meeting, four to five States will take part. They visit the watersheds in the area. In fact we had scheduled a regional review in January in Shillong for the North-Eastern States particularly because we thought they need a litle more fillip. We are also going to have a regional review in Calcutta from 14th to 16th February, 1996 where West Bengal, Bihar, Orissa and Uttar Pradesh will take part. For these four major States, we are having a review this month. In addition to that, we have a process of State level review in an in-depth manner. In the State level review senior level technical officer of our division takes part. He is joined by a member for ICAR/a SAU staff member and a nodal officer from the project. They constitute a team of three and spend about a week visiting different micro watersheds. They take up a representative sample. Then we send our detailed feed back to the State. In terms of number, 16 such State level reviews were undertaken last year, i.e. 1994-95. In the current year, 14 such State level inspections have been undertaken. Only two days back, our officers returned from Assam and

Maharashtra. We had a detailed feed back. In fact we also follow it closely. In case of Maharashtra, we came across certain deficiencies. I immediately spoke to the Secretary concerned and requested him to call all the district level officers. On third, he is convening a meeting where our officer is going to educate them in the context of deficiencies which we noticed in the field.

- 9.6 Regarding the important points that emerged out of the regional review meets and the action taken by the Union Government on them, the Committee have been informed in a written note that the following are some of the important points which emerged out of the Regional Review Meets:—
  - (i) Some of the States like Bihar, West Bengal, Goa, Dadar & Nagar Haveli and Jammu & Kashmir, there was inordinate delay in preparation and sanction of the project by the State Governments.
  - (ii) Delay in access of funds to the Watershed Development Teams by the State Finance Department was noticed as a major bottleneck in some of the States like Arunachal Pradesh, Assam, Bihar, Meghalaya and West Bengal.
  - (iii) It was felt that there is a need for bringing about attitudinal change in the field functionaries and beneficiaries from the conventional soil conservation technology to the simple, low cost affordable and replicable technology based on the accumulated wisdom and skill of watershed community.
  - (iv) An operational difficulty in the implementation of the project by the multi-disciplinary Watershed Development Team was noted as the other line departments weren't appreciating the approach being followed under the project.
- 9.7 The following are the details of action taken by the Govt. of India and State Governments on various points emerged during the regional reviews:—
  - (i) To overcome this problem in IXth Plan, the States have been advised to send the proposals for model projects to Govt. of India for approval on the basis of which they can prepare and sanction other project.
  - (ii) An overall perceptible improvement has been noticed in releasing the funds to the implementing department by the State Finance Department. In the State of Bihar, however, the problem is still

- not completely solved but has registered improvement over the previous years.
- (iii) Comprehensive training programmes launched for Subject Matter Specialists/field functionaries/Mitra Kisans and detailed guidelines issued by Govt. of India on various aspects of Watershed Development such as establishment of composite nurseries, research and training have helped in better understanding of the programme by other line departments/ field functionaries. They have now started adopting the simple low cost vegetative conservation based technology following single window financing and task force approach of the project.
- 9.8 It was further added in a note that the State level reviews conducted by the Joint Teams have pointed out the specific components varying from State to State, which need immediate attention of th State Government. Some of the important points are listed below:—
  - (i) The progress with respect to sanctioning of the Watershed project by the State Level Sanctioning Committee was found to be very slow in the States of Arunachal Pradesh, Bihar, Goa, West Bengal and Dadra & Nagar Haveli.
  - (ii) Establishment of composite nurseries and Barani Chetna Kendras and implementation of other basic activities was slow in some of the States like Bihar, Gujarat, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Rajasthan and West Bengal.
  - (iii) Achievements with respect to household production systems in some of the States like Karnataka, Rajasthan, Sikkim and Tripura were observed to be on lower side.
- 9.9 As a result of the intensive efforts made by the Govt. of India./ State Governments following improvements have been noticed:
  - The States like Madhya Pradesh, Gujarat and West Bengal have now achieved over 75% targets whereas in other States except for Kerala there has been improvement over the previous year.
  - There has been substantial improvement in taking up activities relating to the household production system.
  - Though there has been some improvement in taking up activities related to livestock management but it has not picked up at the desired level.

## CHAPTER X

## **EVALUATION**

10.1 When asked to explain the arrangements available for evaluation of the programme, it has been stated in a written note that for evaluating the impact of the Programme, studies have been entrusted to 10 Agro-Economic Research Centres of the Directorates of Economics & Statistics of the Ministry of Agriculture in the year 1994.

10.2 So far 5 Agro-Economic Research Centres have submitted the draft reports. The terms of reference for the study assigned to the Agro Economic Research Centres were as follows:—

- To examine the present status of the available technology and the extent of its adoption by farmers.
- 2. To identify the factors responsible for productivity changes.
- To locate the constraints in the project implementation in terms of infrastructure, technology and other factors.
- To evaluate the impact of vegetative measures, soil and water conservation structures and other components as suggested in the guidelines of NWDPRA (1992).
- To suggest strategies for removal of the constraints faced in NWDPRA.
- 10.3 The Centre-wise salient achievements reported may be provisionally stated as follows:—

## (i) Pune Centre

It is reported on the analysis of primary and secondary data that area under horticulture, yeild per ha., area irrigated from the conserved water and increase in cropping intensity was higher at Bugewadi and Nune-Goudi watershed in the Maharashtra State. Increase in the cropping intensity among other things was due to introduction of drought resistant rainfed crops like sunflower, safflower and groundnut etc.

## (ii) Jabalpur Centre

The impact assessment under this centre was made for the two watersheds located in Raipur and Khargaon district of

Madhya Pradesh. One of the impact which is reported to be significant is that the important soil conservation measures like live checks, earthen checks, vegetative checks, loose boulder structures, etc. check soil and water erosion and reduce the siltation effect down stream. Secondly, it has also been reported that crop demonstration programme has also shown some positive impact. For instance double cropping and inter cropping demonstrations have to a considerable degree checked the soil erosion by way of conserving the available moisture in the treated watershed. The organic farming programme through introduction of NADEP method of composting thought recently initiated, is gaining popularity among the user farmers.

## (iii) Allahabad Centre

In Allahabad Centre two micro-watersheds located at Bhaghani zila in Jhansi District and Panja Raw in Saharanpur District in U.P. were studied. In terms of physical progress the overall achivement combing the two watersheds under study may be briefly stated as follows: (i) Setting up of a composite nurseries—100% (ii) Plantation Programme under agroforestry—99% (iii) Dry land Horticulture—86% (iv) Use of Vegetative Hedges as a means of soil and water conservation measures—99% (v) Bank Stablisation—113% (vi) Training of Contact Farmers—100%.

Similarly, on the basis of computed data, on the performance of crop demonstration programme it has been reported that per ha. yield of paddy, wheat and maize was 14.84 qntls. 15.49 qntils. and 15.09 qntls. in case of project beneficiaries under two projects against the corresponding yield of 10.00 qntls., 11.24 qntls. and 7.03 qntls. for the same crops in case of non beneficiary farmers outside the project neighbouring to the watershed areas.

## (iv) Jorhat & Viswa Bharti Centres

It is observed that the parameters set out to measure the impact of the project in terms of increase in cropping intensity reduction in soil and water losses, reduction in biomass, peoples participation, etc. needs to be relooked into. So, the impact assessment could not be carried out as per the terms of reference of the study assigned.

10.4 In sum the Department of Agriculture & Cooperation have informed the Committee that the impact evaluation studies conducted by the Agro-Economic Research Centres in the States of Uttar Pradesh,

Madhya Pradesh, Maharashtra, Gujarat, Himachal Pradesh etc. have revealed improvement in crop yields, recharge of ground water table, fodder production etc. which is expected to have positive impact on the living standards of rural people. Through the impact evaluation studies contemplated in future, this aspect will be further studied in detail.

10.5 The Committee pointed out that the NWDPRA has been in operation since 1990-91. Since five years have passed after its implementation began, the Committee desired to know the extent of employment created during the project period and the extent of regular employment created after the completion of the project.

The Committee have been informed that in view of thin spread of the project activities, confirmed and comprehensive information in this regard is awaited from the States.

## CHAPTER XI

## RESEARCH SUPPORT

- 11.1 Regarding the research support available to NWDPRA, the Committee have been informed that under NWDPRA, 5% of the total available funds are earmarked for research support, in which three types of research programmes are taken up as follows:
  - (i) Field Research around Research Stations.
  - (ii) Research by farmers and field functionaries with guidance from the Research Stations.
  - (iii) Socio-Economic and other Research which State Govt. may find useful including NGOs.
- 11.2 Under research by farmers and field functionaries with the guidance from the research stations, innovative farmers are selected and research on the farmers fields according to the local requirements is taken up. Under this research some risk is also there, for that the State Govt. may compensate the loss incurred, if any, by the farmers.
- 11.3 Under field research around research stations, State Agriculture Universities have prepared some research projects which have been approved by Government of India. So far 117 research projects in 31 agro-climatic zones have been approved.

## CHAPTER XII

## NATIONAL PERSPECTIVE PLAN

- 12.1 The Committee in the Third Report observed that they were happy to note that a thinking was underway to prepare a 25 years perspective plan for the development rainfed areas and hoped that the plan would be prepared within a period of 6 months to one year. The Committee was of the view that a substantial amount would be required for the development of watershed areas. Considering that the NWDPRA had been accorded the highest priority, the Committee was of the opinion that the present allocation of Rs. 1100 crores was not realistic. The Committee was of the view that the plan allocation for five year plan should be approximately to the tune of 15,000 crores which was more realistic. Besides that, the Committee also felt that the ongoing rural development schemes such as Jawahar Rozgar Yojana should be tied up with the NWDPRA.
- 12.2 Regarding the progress made in the formulation of the perspective plan, the Committee have been informed in a written note that the Planning Commission has constituted a Committee under the Chairmanship of Member Agriculture for preparation of a 25 year perspective plan for the development of rainfed areas. The broad objectives of the Committee are to review the performance of various ongoing developmental programme on rainfed agriculture and undertake critical appraisal of the availability of the agriculture services in rainfed areas. The Committee is expected to give recommendations for integrated development of rainfed areas on a long term basis.
- 12.3 The first meeting of the Committee was held on 8.9.94 under the Chairmanship of Member (Agri). In pursuance of the decision arrived at the first meeting the Committee had set up the following 5 Working Groups to sub-serve the overall objectives of the Committee:—
  - (a) Training of Officials & Project Functionaries.
  - (b) People's Participation.
  - (c) Development of Data-base.
  - (d) Convergence of specialisation through Institutional Framework.
  - (e) Research.
- 12.4 So far, two meetings of the above mentioned Working Groups have been held (on 8.8.95 and 29.1.96). Besides, the Chairman of each of

the Working Groups have also had separate meetings to prepare respective Working Group Report.

12.5 During evidence, the representative of the Department of Agriculture & Cooperation further added as follows:

"This Committee had set up five Working Groups to serve the overall objectives of the Committee. The Deliberations of these Groups are at various stages. We expect that once the Reports of the Groups are available, they will provide necessary inputs for the preparation of the Perspective Plan."

## CHAPTER XIII

## OBSERVATIONS/RECOMMENDATIONS

13.1 After going through the various details about the concept and implementation of the National Watershed Development Project for Rainfed Areas (NWDPRA) placed before the Committee by the Department of Agriculture & Cooperation, the Committee observe that NWDPRA is the most comprehensive programme with a holistic and economically sound approach by which the basic objective of enhancing both production and productivity in the acutest areas which do not have any assured source of irrigation could be achieved for certain within a definite period of time. The Committee are sure that the vigorous implementation of NWDPRA would lead to reduction in the regional disparity between the irrigated and the vast rainfed areas which constitute 70% of our cultivated land and this would in turn have its own impact on the resultant socio-economic, nutritional and ecological imbalances. The Committee hope that the present major concern for the conservation of dwindling natural resources i.e. water, soil, plant and animal germplasm would be further enhanced in the programme content of NWDPRA in the coming years, as this alone would lead to an eternally sustainable development in all agricultural sectors in the rural areas. Therefore, keeping in view the potential of high returns from the Project and also the urgent need to develop the rainfed areas, the Committee desire that the wisdom of economic planners should dictate that NWDPRA should be assiged the prime of place in the strategy to be adopted for the assault on rural poverty. The Committee feel that this Project should be accorded number one status among all other developmental schemes, as this confers the greatest advantage on farmers, going by the cost-benefit analysis. The Committee are convinced that NWDPRA is the magic wand by which alone economic prosperity could be ushered in the vast rural expanses of this country and, therefore, recommend that the highest financial allocation should be made in favour of NWDPRA in the coming Ninth Five Year Plan and also in the National Perspective Plan for Development of Rainfed Areas which is under preparation. The Committee are, however, dismayed to note that despite many recommendations made on NWDPRA in the Fifth Report of the Committee on Agriculture (1991-92), no perceptible results could be achieved in dryland farming and therefore, recommend that the earlier Report should be taken as a guideline for the Project for all purposes.

13.2 The Committee note that NWDPRA envisages the systematic treatment of (i) arable land (ii) non-arable land and (iii) drainage lines

in a chosen project area and it also envisages livestock management activities suitable to that chosen area. The Committee also note that micro-watershed areas chosen for development would make use of vegetative meausres and simple, low-cost, replicable technology for conservation of land and water resources with erosion-control and insitu moisture conservation as their objectives. These projects would be demonstrative in nature and would inspire the local community with very limited resources to adopt these simple and cheaper conservation means. Since affordability and replicability are the prime criteria, the Committee recommend that location-specific low cost technology should be developed, clearly avoiding the engagement of engineering agencies to construct structures and then to maintain them later on. The Committee further note that higher reliance in the entire strategy would be on vegetative measures both on individual holdings and on community lands and this component envisages vegetative hedges, agroforestry, overseeding of grasses and legumes for forage and pasture development and cultivation of shrubs for fodder and fuel etc. However, during the study tours the Committee are disappointed to note that not much headway has been made in the matter of creation of green pastures under NWDPRA in the States. Therefore, the Committee recommend that equal emphasis should be laid on this aspect also at all stages while implementing the programme, as this is closely linked not only to soil conservation but also to the question of restoration of the ecological balance in the vast denuded barren lands of the rural areas.

13.3 The Committee note that the structures and assets created during the project period are expected to be maintained by the Mitra Krishak Mandals and Self-Help Groups of Beneficiaries once the project authorities withdraw from the scene on the completion of a project. The Committee also note that no specific role has been assigned to the village panchayats in the implementation of the projects or in the maintenance of the structures and assets in the post-project period. There appears to be some expectation on the part of the beneficiaries that the structures could be maintained with some assistance from the State Governments after the project period is over. Under these circumstances, the Committee apprehend that all the structures and assets created during the project period may become ineffective or even perish in the absence of a permanent institutionalised arrangement for the maintenance of these structures. The Committee feel that the structures created in the community land/barren lands would be the worst-hit in the entire scheme of things with none to maintain them on a long-term basis. To the Committee, this aspect is the weakest link in the total strategy planned and requires to be strengthened on an emergent basis. The Committee are of the opinion that the whole question of substaniability of the entire scheme hinges upon this pivotal

point and they recommend that the government should come forward with a permanent solution for the maintenance of the structures created during the project lest thousands of crores of rupees spent on the creation of these structures should literally go down the drains due to lack of provision for their maintenance and this ambitious project launched with the laudable objective of rural upliftment should only be reduced to total failure. The Committee further wish to clarify that no new posts/department should be created for the maintenance work and only the existing institutional arrangements such as panchayati institutions, NGOs, agricultural department etc. should be given the responsibility.

13.4 The Committee note that NWDPRA in its present form has been confined only to rainfed areas and the project does not cover vast irrigated areas where the ground-water level has been depleting at a rapid pace which has brought those stretches of land almost at par with the rainfed areas as far as availability of water for irrigation is concerned. The Committee also wish to point out that a lot of rainwater goes waste unharvested every year due to floods and also due to cyclonic storms especially along the coastal regions. The Committee wish to point out that treatment is also required for hilly areas, dam catchment areas and ravinous areas of the Northern India. Since the main thrust of the watershed development strategy is on the harvesting of rain-water and its conservation to ensure proper infiltration and ground-water recharge, the Committee feel that the scope of the NWDPRA requires to be expanded to cover the above-mentioned areas as well. The Committee, therefore, recommend that comprehensive and holistic schemes should be forged out to make NWDPRA truly a 'National' programme as indicated in its very nomenclature.

13.5 The Committee note with concern the statement of the Depatment of Agriculture & Cooperation that in some States like Bihar, West Bengal, Meghalaya and Nagaland the project implementation has still not picked up the desired tempo. The Commitee have been informed that NWDPRA was sanctioned in October 1990 and the initial two years of 1990-91 and 1991-92 were devoted to put the Project on ground and this meant that it is only from the year 1992-93 the implementation proper is said to have started. Even after the implementation started in 1992-93, the work suffered in the subsequent years in some states such as Arunachal Pradesh, Assam, Bihar, Meghalaya and West Bengal, as the Finance Departments of these State Governments delayed the release of funds already received by them from the Union Government to the Watershed Development Teams. It has been reported to the Committee that in the State of Bihar the problem is not still completely solved, despite repeated requests from

the highest levels in the Ministry of Agriculture including the Union Minister of Agriculture. The reasons advanced for the delay in putting the Project on ground are hardly convincing to the Committee as the whole process has taken an unduly long time and the concept of watershed development is not that new. What is more distressing to the Committee is the fact that even after seven years of implementation of the Project, the desired tempo could not be achieved still in some states like Bihar, West Bengal, Meghalaya and Nagaland. The Committee are further concerned to note that the Finance Department of Bihar Government still continues to delay the release of central funds to the Watershed Development Teams, despite repeated requests from the Union Government at the highest levels. The Committee, therefore, recommend that the Union Government should contemplate taking stern action against the official functionaries concerned in the defaulting states for their utter disregard of Central Government's request to relese funds in time and for their attempts to throttle the life-line of the entire Project which has all its focus on the most deprived parts of the country and on the most needy sections of the society. The Committee also recommend that in respect of these defaulting states, alternate methods of reaching the funds quickly to the implementing agency should be worked out and the disbursement should be made forthwith accordingly.

13.6 The Committee express their pleasure at the commendable effort put in the creation of the comprehensive WARASA Manuals by the Ministry of Agriculture. The Committee note that different sets of guidelines have been issued on the concept of Watershed Development by the Ministry of Agriculture and by the Ministry of Rural Areas and Employment and these guidelines with varying objectives required some resolution. The Committee also note that the Ministry of Agriculture has already initiated some steps to resolve the issue. The Committee feel that the matter requires to be addressed on an urgent basis and, therefore, recommend that the Ministry of Agriculture and the Ministry of Rural Areas and Employment should immediately sit together and hammer out a uniform strategy within a period of three months so that there is no confusion in the implementation of the Project by the State Government agencies. The Committee further recommend that the task of watershed development should be assigned to one particular Ministry instead of it being handled by two Ministries in the interest of economy, clear accountability, better monitoring and optimum utilisation of funds and man-power resources.

13.7 The Committee note that the proportion of Mahila Mitra Kisans trained under the 6-day comprehensive Training Programme on NWDPRA in the total number of persons imparted training is considerably low in some states and they recommend that more women

Mittra Kisans should be trained in view of the quantum of their work participation in various agricultural activities.

13.8 The Committee note that there are 1426 composite nurseries established all over the country in 2653 microwatersheds selected for development. The Committee also note that there is not even a single nursery available in Bihar which has got 209 microwatershed projects selected for development. Some state governments have stated that sufficient number of composite nurseries could not be established due to non-availability of land with the State Agriculture Departments. Besides, it has been brought to the notice of the Committee that the cost norms for establishment of block plantations in Agro forestry under NWDPRA are far below the norms prescribed by the Ministry of Environment and Forests for the purpose. The Committee feel that the establishment of nurseries is one of the most important key components in the entire strategy of Watershed Development, as this component provides the necessary inputs for the vegetative conservation measures on which high reliance has been placed. The Committee find the present availability of composite nurseries highly inadequate and it requires urgent augmentation. The Committee, therefore, recommend that necessary steps should be taken immediately to boost up this activity. The Land Revenue Departments of the State governments should be asked to identify suitbale lands for the setting up of nurseries and make them available to the State Agriculture Departments on prioity basis within one year of receipt of requests in order to make the Project a definite success. In addition parts of the land available with the State Agriculture farms, Agricultural Universities, other agricultural institutions, KVKs and NGOs should also be utilised for the purpose. The Committee also recommend that the Union Agriculture Ministry should examine the cost norms fixed in respect of block plantations in agro-forestry keeping in view the cost norms adopted by the Ministry of Environment and Forests. The Committee recommend that the Forest Department should be invariably associated in the work of the Watershed Development Teams.

13.9 The Committee note that State level reviews are conducted periodically to monitor the implementation of the Project and to identify the problems of implementation. Intensive efforts have been made to initiate corrective measures in each State. However, the Committee note that the activities relating to Livestock Management under NWDPRA has not picked up the desired level despite corrective measures initiated in various States. The Committee desire that the government should analyse the reasons as to why the livestock management activities have not picked up with a view to chalk out suitable remedial measures. This aspect requires immediate attention of the government as livestock rearing is an integral part of the rainfed farming system all over the

country and the production of fodder on the cultivable lands would ensure the nutritional requirements of the cattle besides conserving the ecological balance of the area.

13.10 The Committee note that under NWDPRA, five percent of the total available funds are earmarked for rendering research support to the Project. The Committee recommend that a substantial portion of the research effort should focus on the kind of suitable location—specific activities that could be taken up by farmers including farm women in a rainfed farming system in various agro-climatic zones. The research spectrum should be widened to include water percolation studies, water duty, evolution of suitable crop patterns, comprehensive on farm activities such as poultry, piggery, sericulture, beekeeping, rabbit rearing, mushroom cultivation, pisciculture, farm waste management, etc. The Committee further recommend that Farming Systems Model (FSM) for one hectare, two hectares, five hectares and ten hectares of farm holding sizes may be worked out and be tested through on-farm trials.

13.11 The Committee note that the Planning Commission has constituted in 1994 a Committee under the Chairmanship of Member (Agriculture) for preparation of a 25 year Perspective Plan for development of rainfed areas. The Committee has set up five Working Groups to examine five aspects of the Perspective Plan. The Committee have been informed that the Working Groups have held meetings in August, 1995 and in January, 1996. The Committee have been informed that the deliberations of these Working Groups are at various stages and once their reports are available they will provide the necessary inputs for the preparation of the Perspective Plan. The Committee feel that there is an urgent necessity to speed up the pace of work done by the Working Groups. The Committee desire that the National Perspective Plan for Development of Rainfed Areas should be got ready well in time before the formulation of the 9th Five Year Plan is undertaken so that the Perspective Plan could find implementation in the very first year of the 9th Five Year Plan. They, therefore, recommend that the National Perspective Plan for the Development of Rainfed Areas should be formulated within six months. The Committee also recommend that the Perspective Plan should be supported by adequate financial allocations so that the laudable objectives of the plan are achieved in real terms for the betterment of the geographically disadvantaged regions of the country.



## APPENDIX I

(Vide Para 6.1 of the Report)

# VIIITH PLAN ALLOCATION, FUNDS RELEASED, EXPENDITURE INCURRED UNDER NATIONAL WATERSHED DEVELOPMENT PROJECT FOR RAINFED AREAS (N.W.D.P.R.A.)

(Rs. in lakh)

S.No.	Name of State/UT	VIIIth Plan Allocation	<b>A</b>	Amount Released	pest			Expenditure incurred	<u></u>		Allocation Amount 1995-96 released	Amount
			1992-93	1993-94	1994-95	Total	1992-93	1993-94	1994-95	Total		1995-96
ــ	Andhra Pradesh	7600.00	1238.00	1462.00	636.550	3336.550	876.305	697.510	704.531	2278.344	25.00	
7	Arunachal Pradesh	107.00	18.000	1	22.000	40.000	4.000	21.702	5.604	31.304	11.00	
εć	Assam	2322.00	350.000	460.000	535.000	1345.000	406.783	349.325	454.865	1210.973	129.000	
<del>-j</del> i	Bihar	5280.00	130.858	ı	435.00	565.858	006.6	114.610	292.339	416.849	50.000	23.000
κį	Goa	115.00	2.733	1	1	2.733	1.680	6.650	0.260	8.590	110.000	
ý	Gujarat	8024.00	1180.000	1370.000	1073.940	3623.940	510.340	653.140	744.690	1908.170	2150.000	
7.	Haryana	1560.00	38.552	ł	ł	38.552	34.350	96.250	122.620	253.220	120.000	
œi	Himachal Pradesh	540.00	80.000	i	575.000	655.000	27.850	132.710	355.350	515.910	460.000	
6	Jammu & Kashmir	465.00	90.009	192.000	ı	252.000	67.020	46.020	197.000	310.040	265.000	29.000
10	Kamataka	9665.00	1380.000	3149.999	1524.810	6024.809	1803.294	1854.190	1795.231	5452.715	2320.000	
::	Kerala	2000:00	300.000	1360.000	180.000	1840.000	753.900	360.000	180.000	1293.900	575.000	
21	Madhya Pradesh	17680.00	980.053	1900:000	200.000	3380.053	1229.270	1520.450	1977.220	4726.940	3800.000	550.000
13.	Maharashtra	17560.000	742.673	2000:000	3100.000	5842.673	2258.849	2301.250	4709.090	9269.193	545.000	545.000
14	Manipur	<b>90</b> .00	73.000	ŀ	80.000	153.000	19.262	40.105	80.204	139.571	30.000	
15.	Meghalaya	150.00	28.000	100:000	ı	128.000	43.700	l	0.370	44.120	26.000	

		394.00		827.00					122.000			7.000					2527.000	
١	2.000	1700.000	10.000	4420.000	10.000	25.000	2.000	1050.000	912.000	2.000	ı	48.000					46377.256 18800.000 2527.000	
542.960	364.250	3256.590	168.120	6337.882	191.512	2191.150	65.000	4576.320	801.189	2.022	l	28.422					46377.256	
376.960	250.000	1028.000	63.680	2781.000	80.000	748.070	30.000	2288.040	414.930	2.020	ŀ	24.500					19706.574	
144.740	77.500	945.260	16.560	2096.870	71.808	761.910	1	1178.740	247.305	1	1	3.922					13728.531	
21.260	36.750	1283.330	87.880	1464.012	39.704	681.170	35.000	1107.540	138.954	0.002	1	i					12942.155	
783.770	584.000	3772.187	355.000	6150.000	288.003	2488.887	190.000	5045.000	491.244	10.500	0.500	46.000					19784.999 16118.070 47423.256 12942.155 13728.531 19706.574	
319.770	250.000	1250.000	115.000	1900.000	110.000	700.000	95.000	2295.000	400.000	I	i	21.000					16118.070	
398.000	306.000	1750.000	120.000	1900.000	108.000	1664.000	90.000	1450.000	i	10.000	ı	26.000					19784.999	
99.000	28.000	772.187	120.000	2250.000	20.000	84.857	35.000	1300.000	91.244	0.500	0.500						11520.187	
92.00	140.00	5260.00	615.00	13120.00	160.00	3434.00	238.00	8050.000	3670.00	30.00	15.00	30.00	30.00	10.00	15.00	1	108000:00	2000.00
Mizoram	Nagaland	Orissa	Punjab	Rajasthan	Sikkim	Tamilnadu	Tripura	Uttar Pradesh	West Bengal	Dadra & Nagar Haveli	Daman & Diu	Andaman & Nicobar	Chandigarh	Delhi	Lakshdweep	Pondicherry	Total	HQ G. Total
16.	17.	89	19.	20.	21.	73	83	24.	53	<b>7</b> 9	27.	78	29.	89	31.	32.		

# APPENDIX II

(Vide Para 6.1 of the Report)

# STATEMENT SHOWING ESTIMATED COST OF PROJECT, AMOUNT RELEASED, AMOUNT EXPENDED, INSPENDED, ANCE FTC TIMPER NUMBERS

		S S S	UNSPENT BALANCE ETC. UNDER NWDPRA	CE EIC. UN	DEK NWDP	₹		(Rs. in laklı)
Si. N	Sl. No. Name of the State/ UT	Estimated cost of the projects taken up	Total amount released from 1990-91 to 1994-95 inclu- ding unspent balance of VII Plan	Total expenditure incurred (till date)	%utilisation of funds with respect to funds released	%utilisation of funds with respect to estimated cost of the project	Unspent Balance	Allocation during 1995-96
	Andhra Pradesh	5218.550	4944.647	3649.742	73.8	6.69	1294.905	25.000
7	Arunachal Pradesh	96.540	99.000	41.099	62.3	42.6	24.901	11.000
က	Assam	2494.260	1866.387	1471.270	78.8	59.0	395.117	129.000
4	Bihar	2162.260	1738.433	408.735	23.5	18.9	1329.698	50.000
Ŋ.	Goa	92.748	27.933	11.720	41.9	12.6	16.213	110.000
9	Gujarat	9776.200	5396.677	3151.220	58.4	32.2	2244.957	2150.000
۲.	Haryana	644.058	383.338	253.220	0.99	37.3	130.118	120.000
∞	Himachal Pradesh	1541.576	774.530	540.623	8.69	35.1	233.907	460.000
6	Jammu & Kashmir	767.000	346.112	317.850	91.8	41.4	28.262	265.000
10	Kamataka	11387.000	8372.384	7004.812	83.7	61.5	1367.572	2320.000

	18800.000	14298.299	50.5	79.9	56982.506	71280.805	112850.203	Total 1	j
	48.000	17.078	23.1	62.9	28.922	46.000	125.308	Andaman & Nicobar	88
	1	2.315	1	i	1	2.315	ł	Daman & Diu	27.
	2.000	11.633	3.6	5.5	0.682	12.315	18.735	Dadra & Nagar Haveli	<b>5</b> 6.
	912.000	424.957	31.7	67.4	880.018	1304.975	2771.794	West Ber ા	22.
	1050.000	619.937	61.7	6:06	6180.560	6800.477	10015.061	Uttar Pradesh	24.
	2.000	124.800	47.8	48.6	118.000	242.800	247.000	Tripura	23.
	25.000	894.339	55.5	72.1	2317.310	3211.649	4177.242	Tamil Nadu	22.
7	10.000	96.498	63.9	69.7	222.412	318.910	347.970	Sikkim	21.
	4420.000	1109.965	45.3	87.7	7916.335	9026.300	17445.630	Rajasthan	70.
	10.000	226.370	49.9	54.3	269.290	495.660	539.470	Punjab	19.
	1700.000	1306.112	34.3	73.5	3621.600	4927.712	10569.000	Orissa	18.
	2.000	228.600	61.3	63.1	390.100	618.900	637.000	Nagaland	17.
		248.060	689	689	550.610	798.670	298.670	Mizoram	16.
	26.000	102.630	27.0	37.2	60.920	163.550	225.930	Meghalaya	15.
	30.000	19.998	6.09	88.5	153.902	173.900	252.720	Manipur	14.
	545.000	(-) 361.973	78.6	103.7	10048.071	9686.098	12787.490	Maharashtra	13.
	3800.000	1615.200	39.8	7.7.7	5624.993	7240.213	14127.439	Madhya Pradesh	12.
	575.000	546.100	48.8	76.2	1747.800	2293.900	3583.576	Kerala	11.

## MINUTES OF THE NINTY SEVENTH SITTING OF THE STANDING COMMITTEE ON AGRICULTURE HELD ON WEDNESDAY, THE 6TH MARCH, 1996 IN COMMITTEE ROOM 'D', GROUND FLOOR, PARLIAMENT HOUSE ANNEXE, NEW DELIH

The Committee met from 1500 hrs. to 1615 hrs.

	Present	
Shri Nitish Kumar		Chairman
	Members	
	Lok Sabha	

- 2. Shri Nathuram Mirdha
- 3. Shri G. Ganga Reddy
- 4. Shri Sarat Pattnayak
- 5. Shri Govindrao Nikam
- 6. Kumari Pushpa Devi Singh
- 7. Shri Tara Singh
- 8. Shri Uttamrao Deorao Patil
- 9. Kumari Uma Bharati
- 10. Dr. Gunwant Rambhau Sarode
- 11. Smt. Krishnendra Kaur 'Deepa'
- 12. Shri Ram Tahal Chaudhary
- 13. Shri Upendra Nath Verma

## Rajya Sabha

- 14. Shri Anant Ram Jaiswal
- 15. Dr. Bapu Kaldate
- 16. Shri Bhupinder Singh Mann
- 17. Shri Maheshwar Singh
- 18. Dr. Ranveer Singh
- 19. Shri Som Pal

## SECRETARIAT

Smt. Roli Srivastava
 Shri P.D.T. Achary
 Joint Secretary
 Director

Shri S. Bal Shekar — Under Secretary
 Shri K.L. Arora — Committee Officer

A Resolution was passed by the Committee on the sad demise Shri Rudrasan Chaudhary, Member of Parliament and also a Member of the Standing Committee on Agriculture and two minutes silence was observed. The Committee decided to forward a copy of the Resolution to Smt. Krishna Chaudhary.

- 2. The Chairman, then, took up the Draft Thirty Eighth Report on 'Nation' Watershed Development Project for Rainfed Areas' for consideration. The recommendations/observations were read parawise and modifications/amendm' suggested by Members in some paras were incorporated. The Draft Report adopted with these modifications/amendments.
- 3. The Members of the Committee, thereafter, authorized the Chairman present the Report to the House on a date convenient to him.
- Lastly, the Chairman thanked the Members of the Committee and.
   Officers & Staff attached to the Agriculture Committee for their active cooperationand valuable contribution during the term of the Committee.

The meeting then adjourned.

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