

Centrally Sponsored Programme of Soil Conservation in the Catchments of River Valley Project & Flood Prone River (As on March, 2009)

1. Background:

The Centrally Sponsored Programme of Soil Conservation in the Catchments of River Valley Project & Flood Prone River (RVP & FPR) is being implemented through Macro Management of Agriculture (MMA), since November 2000 of IX Plan.

2. Objectives:

The main objectives of the programme are:

- (a) Prevention of land degradation by adoption of a multi-disciplinary integrated approach of soil conservation & watershed management in catchment areas;
- (b) Improvement of land capability and moisture regime in the watersheds;
- (c) Promotion of land use to match land capability;
- (d) Prevention of soil loss from the catchments to reduce siltation of multipurpose reservoirs & enhance the in-situ moisture conservation and surface rainwater storages in the catchments to reduce flood peaks & volume of runoff.

3. States covered:

Presently, this programme is being implemented in 60 catchments having total catchment area of about 114.44 million ha., out of which about 30 million ha. is categorized as priority area, needing urgent treatment falling in 27 States of the country. The catchments are of inter-state nature and Agriculture, Waste and Forest are treated in an integrated manner. The States covered are, Assam, Andhra Pradesh, Arunachal Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Mizoram, Meghalaya, Manipur, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand and West Bengal. The name of catchments and States for each catchment are given in Annexure-I.

4. Components of the Programme:

In this programme all type of Lands viz Agriculture, Waste and Forest are treated in an integrated manner with suitable package of treatment viz construction of Contour Vegetative Hedge, Contour/ Graded Bunding, Horticulture Plantation, Contour/ Staggered Trenching, Sowing and Planting of Plants, Silvi-Pasture Development, Pasture Development, Afforestation, Farm Pond, Percolation Tank, Drainage Line Treatment (Earthen Loose Boulders, Water Harvesting Structure, Check Bund, Spill-way, Sediment Detention Structure, etc.).

5. Unit Cost

The upper limit of unit cost of treatment of the watershed under this programme is Rs.12000.00 per ha. for its entire treatment period (say 3-7 years).

6. Selection of watersheds:

The catchments included under RVP & FPR Programme are surveyed by the Soil & Land Use Survey of India (SLUSI) by conducting Priority Delineation Survey (PDS) and categorized into five categories i.e. Very High, High, Medium, Low and Very Low using Silt Yield Index (SYI) methodology. Due to financial resources Priority Watersheds (Very High and High watersheds) are taken for treatment on top priority and if other categories of watersheds are in contiguity then, such watersheds can be also included for treatment under programme.

7. Financing Pattern:

The financing pattern of the programme is as of Macro Management of Agriculture(MMA) Scheme of DAC, Govt. of India, which is 90% Centre's share and 10% State's share, except in case of the North-Eastern States and Union Territories where the Central share would be 100% as at present. The central assistance from 2007-08 onwards would be provided as 100% grant to the States / UTs.

8. Monitoring Mechanism:

The Programme is being implemented on watershed basis by the Multidisciplinary team of Officers of State Governments. At State level, the programme is approved and monitored by District Watershed Development Team (DWDT) & at State level by State Level Nodal Agency (SLNA). At National level, the progress in prescribed proforma are collected from the State periodically and performance and future plan of action for improvement in the implementation etc. is reviewed by holding Annual and Quarterly Desk Review meetings. In addition to these, periodic field visit of the officers of Central Government, State Government and Project level functionaries are undertaken.

9. Sediment Monitoring

The concept of comparison of hydrologic & sediment changes during treatment and after treatment as compared to pretreatment are also undertaken by establishing Sediment Monitoring Station (SMS) in one, out of five watersheds to assess the impact of watershed interventions.

10. Impact of Programme implementation:

The evaluation study of selected watersheds of 22 catchments covered under RVP & FPR programme have been conducted by appropriate outside agencies like Administrative Staff College of India (ASCI) Hyderabad, Agriculture Finance Consultant (AFC) Bombay and National Remote Sensing Agency, Hyderabad. The Evaluation Studies revealed that watershed interventions have found very effective in prevention of land degradation and water conservation. The Main findings are:

- (a) **Increase in Agricultural yield** – Increased in yield of agricultural crops varies from 2.7 to 76% in the watersheds treated under the programme.
- (b) **Increase in Cropping Intensity** – Cropping intensity has increased ranging from 85% to 115% in Matatila, Nizamsagar & Ukai catchments.
- (c) **Sediment Production Rate (SPR)** – SPR has been reduced ranging from 17% to 94% in Matatila, Nizamsagar & Ukai catchments.
- (d) **Peak Rate of Runoff**- Reduction in runoff peak volume varies from 46.6 to 1.6% in different watersheds of Sahibi catchment.
- (e) **Ground Water Recharge** – Increase of water table in wells in the watershed area ranged from 1 to 2.5 meters.
- (f) **Employment Generation** – The employment generated due to watershed intervention ranges from 2.0 to 7.9 lakh man-days in various watersheds treated under the programme.

11. Achievements:

Under this programme, an area of 1.04 million ha. has been treated with an expenditure of Rs.746.33 crore during X Five Year Plan and since inception upto end of X Plan(2006-07), an area of 6.53 million ha. has been treated with expenditure of Rs.2262.53 crore as per State-wise and Plan-wise details given in Annexure-II. The State-wise achievements for 2007-08 and programme of 2008-09 are given in Annexure-III.

Catchments & States covered under Centrally Sponsored Programme of Soil Conservation in Catchments of River Valley Project & Flood Prone River

(As on March 2009)

S.No.	Name of the Catchment	States Covered
1.	Ajoy	Bihar, Jharkhand & West Bengal
2.	Banas	Madhya Pradesh & Rajasthan
3.	Badua & Chandan	Bihar & Jharkhand
4.	Beas	Himachal Pradesh
5.	Betwa	Madhya Pradesh & Uttar Pradesh
6.	Bhogdai *	Assam & Nagaland
7.	Chambal	Madhya Pradesh & Rajasthan
8.	Chenab	Jammu & Kashmir and Himachal Pradesh
9.	Damanganga	Gujarat, Maharashtra
10.	Damodar-Barakar	Jharkhand, West Bengal
11.	Dantiwada	Gujarat, Rajasthan
12.	Dhansiri	Nagaland, Manipur & Assam
13.	Dichang *	Assam & Arunachal Pradesh
14.	Dikrong	Arunachal Pradesh & Assam
15.	Dhaleswari	Mizoram & Assam
16.	Ghaggar	Haryana, Himachal Pradesh & Punjab
17.	Gumti	Tripura
18.	Hirakund	Chhattisgarh & Orissa
19.	Jia-Bhareli	Assam & Arunachal Pradesh
20.	Jhelum	Jammu & Kashmir
21.	Kangsabati	West Bengal, Bihar
22.	Kapili	Meghalaya & Assam
23.	Kabini	Kerala & Karnataka
24.	Ken & Baghain	Uttar Pradesh & Madhya Pradesh
25.	Kiul	Bihar & Jharkhand
26.	Longai	Mizoram, Tripura & Assam
27.	Luni	Rajasthan & Gujarat
28.	Machkund – Sileru	Andhra Pradesh, Orissa
29.	Mahi	Gujarat, Madhya Pradesh & Rajasthan
30.	Matatila	Madhya Pradesh, Uttar Pradesh
31.	Mayurakshi	Jharkhand, West Bengal
32.	Nagarjuna Sagar	Andhra Pradesh, Karnataka, Maharashtra
33.	Nizam Sagar	Andhra Pradesh, Karnataka, Maharashtra
34.	Noa – Dihing	Arunachal Pradesh & Assam
35.	Par	Gujarat & Maharashtra
36.	Pocahmpad	Andhra Pradesh, Maharashtra
37.	Pohru	Jammu & Kashmir
38.	Punpun	Bihar, Jharkhand
39.	Parambikulam Aliyar	Tamil Nadu & Kerala
40.	Ramganga – I	Uttarakhand & Uttar Pradesh
41.	Ramganga – II	Uttarakhand & Uttar Pradesh
42.	Rengali Mandira	Jharkhand, Madhya Pradesh, Orissa
43.	Rupnarain	Bihar & West Bengal
44.	Sardar Sarovar	Gujarat, Madhya Pradesh, Maharashtra
45.	Sutlej	Himachal Pradesh
46.	South Pennaiyar	Tamil Nadu & Karnataka
47.	Singla	Assam & Mizoram
48.	Sone	Bihar, Madhya Pradesh, Chhattisgarh & Jharkhand
49.	Sabarmati	Gujarat & Rajasthan
50.	Tawa	Madhya Pradesh
51.	Teju/ Laini	Manipur & Nagaland
52.	Teesta	Sikkim & West Bengal
53.	Thein Dam	Jammu & Kashmir, Himachal Pradesh, Punjab
54.	Tungabhadra	Karnataka
55.	Ukai	Gujarat, Madhya Pradesh, Maharashtra
56.	Upper Buridihing *	Assam & Arunachal Pradesh
57.	Upper Kolab	Andhra Pradesh, Madhya Pradesh, Orissa
58.	Upper Indrawati	Madhya Pradesh, Orissa
59.	Upper Yamuna	Himachal Pradesh & Uttarakhand
60.	Upper Ganga	Uttarakhand

* Four new catchments have been included during 2008-09.

State-wise achievement of Centrally Sponsored Programme of River Valley Project & Flood River (RVP & FPR) upto IX plan, during X plan, upto X Plan

(Phy. in lakh ha and Fin. Rupees in Lakh)

S.No.	Name of the States	Achievements upto IX Plan		Achievements during X Plan		Achievements Upto X Plan(March,07)	
		Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
1.	Andhra Pradesh	2.71	7241.90	0.41	3270.78	3.12	10512.68
2.	Arunachal Pradesh	0.00	0.00	0.02	144.78	0.02	144.78
3.	Assam	0.19	494.12	0.03	216.81	0.22	710.93
4.	Bihar	1.64	4108.74	0.01	27.40	1.65	4136.14
5.	Chhattisgarh	0.06	281.58	0.25	1186.66	0.31	1468.24
6.	Gujarat	1.27	4529.70	0.72	6477.26	1.99	11006.96
7.	Haryana	0.64	1774.03	0.20	950.24	0.84	2724.27
8.	Himachal Pradesh	2.96	11227.75	0.25	3780.08	3.21	15007.83
9.	Jammu & Kashmir	0.68	4027.56	0.17	2048.82	0.85	6076.38
10.	Jharkhand	0.00	0.00	0.00	0.00	0.00	0.00
11.	Karnataka	5.92	11166.98	1.63	5816.09	7.55	16983.07
12.	Kerala	0.31	1974.66	0.09	1094.58	0.40	3069.24
13.	Madhya Pradesh	10.54	19454.55	0.98	4857.64	11.52	24312.19
14.	Maharashtra	2.34	8212.67	0.96	8031.98	3.30	16244.65
15.	Manipur	0.00	0.00	0.01	163.92	0.01	163.92
16.	Meghalaya	0.00	0.00	0.00	11.49	0.00	11.49
17.	Mizoram	0.01	107.03	0.06	767.35	0.07	874.38
18.	Nagaland	0.00	0.00	0.06	444.00	0.06	444.00
19.	Orissa	2.48	4007.56	0.11	568.58	2.59	4576.14
20.	Punjab	0.34	394.69	0.03	165.17	0.37	559.86
21.	Rajasthan	6.81	19276.57	1.32	9745.26	8.13	29021.83
22.	Sikkim	0.25	1289.09	0.02	255.47	0.27	1544.56
23.	Tamil Nadu	1.33	6824.47	0.30	3444.01	1.63	10268.48
24.	Tripura	0.10	405.29	0.02	174.65	0.12	579.94
25.	Uttar Pradesh	6.26	17643.66	1.40	8126.15	7.66	25769.81
26.	Uttarakhand	1.72	8099.38	0.18	1618.48	1.90	9717.86
27.	West Bengal	1.38	3344.10	0.10	579.37	1.48	3923.47
28.	Chandigarh	0.02	95.27	0.00	0.00	0.02	95.27
29.	Delhi	0.02	48.47	0.00	0.00	0.02	48.47
	DVC	4.90	15193.76	0.48	5464.90	5.38	20658.66
	Headquarters	0.00	397.26	0.00	219.00	0.00	616.26
	Sub - Total	54.88	151620.84	9.81	69650.90	64.69	221271.74
	PM's J.K.Package	0.00	0.00	0.58	4981.68	0.58	4981.68
	GRAND TOTAL	54.88	151620.84	10.39	74632.58	65.27	226253.42

State-wise achievement of Centrally Sponsored Programme of River Valley Project & Flood River (RVP & FPR) during first two years (2007- 08 & 2008- 09) of XI Plan

(Phy. in lakh ha. & Fin. in Rs. lakh)

S.No.	Name of States	Achievement during 2007-08		Achievement during 2008-09*	
		Phy.	Fin.	Phy.	Fin.
1.	Andhra Pradesh	0.070	751.38	0.037	402.96
2.	Arunachal Pradesh	0.016	224.04	0.008	80.00
3.	Assam	0.033	126.95	0.028	99.66
4.	Bihar	0.000	0.00	0.001	3.24
5.	Chhattisgarh	0.101	602.67	0.008	20.42
6.	Gujarat	0.242	2403.98	0.079	1047.97
7.	Haryana	0.017	299.02	0.020	132.28
8.	Himachal Pradesh	0.076	1090.13	0.017	338.09
9.	Jammu & Kashmir	0.034	383.86	0.010	170.27
10.	Jharkhand	0.056	322.21	0.000	0.00
11.	Karnataka	0.246	1353.95	0.181	1264.93
12.	Kerala	0.031	242.90	0.013	84.66
13.	Madhya Pradesh	0.310	1911.98	0.071	464.43
14.	Maharashtra	0.368	4324.46	0.136	1020.01
15.	Manipur	0.039	453.00	0.032	430.50
16.	Meghalaya	0.000	4.73	0.006	38.06
17.	Mizoram	0.045	563.00	0.021	252.76
18.	Nagaland	0.018	300.00	0.000	0.00
19.	Orissa	0.094	445.00	0.040	158.63
20.	Punjab	0.009	76.62	0.004	30.00
21.	Rajasthan	0.360	2918.95	0.272	1941.13
22.	Sikkim	0.022	227.88	0.019	141.98
23.	Tamil Nadu	0.107	1237.34	0.037	548.86
24.	Tripura	0.002	60.69	0.004	19.98
25.	Uttar Pradesh	0.169	1201.68	0.121	245.39
26.	Uttarakhand	0.055	675.54	0.012	150.63
27.	West Bengal	0.010	94.92	0.002	65.00
28.	DVC	0.093	1011.24	0.030	291.40
	Sub - Total	2.623	23308.12	1.209	9443.24
	PM's J.K. Package	0.206	1852.97	0.075	1105.24
	GRAND TOTAL	2.829	25161.09	1.284	10548.48

* Includes the progress reported by States upto January 2009

