

**Brief of Special Central Assistance to State Plan Scheme on Watershed Development
Project in Shifting Cultivation Area (WDPSCA) (As on March 2009)**

1. Background:

Shifting (Jhum) cultivation is a primitive practice of cultivation in States of North Eastern Hill Region of India. Shifting cultivation involves clearance of forest on sloppy land (usually before December), drying and burning debris (Mid-February to Mid-March before onset of monsoon) and cropping. After harvest, land is left fallow and cultivators repeat the process in a new plot designated for the year for Jhum cultivation. First plot remains fallow and vegetative regeneration takes place till the plot is reused for same purpose in a cycle. People involved in Jhum cultivation are called Jhumia. Initially, it worked well, as Jhum cycle was ranging from 20 to 30 years, but with increase in human population and increased demands on lands, this Jhum cycle has got reduced to 5-6 years. Jhum cultivation causes serious land degradation and ecological problems. As reported by Indian Council of Agricultural Research (ICAR) Complex for North Eastern Hill Region, Shillong, Meghalaya, about 14.66 lakh ha. area is affected by Shifting Cultivation mainly in States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura as per the State-wise extent given in Annexure-I. The Planning Commission approved implementation of Scheme of Watershed Development Project in Shifting Cultivation Areas (WDPSCA) in seven States of North Eastern Region, namely, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura with 100% special Central assistance to the States as per directions of National Development Council (NDC) in 1994-95.

2. Objectives:

The main objectives of the programme are:-

- a) protect hill slopes of Jhum areas through soil and water conservation measures on watershed basis and to reduce further land degradation
- b) encourage and assist Jhumia families to develop Jhum land for productive uses with improved cultivation and suitable package of practices leading to settled cultivation.
- c) improve socio-economic status of Jhumia families through household/land based activities
- d) mitigate ill effects of shifting cultivation by introducing appropriate land use as per land capability and improved technologies.

3. Strategy:

- a) adoption of watershed approach for treatment of degraded Jhum areas as cluster and contiguous manner,
- b) integration of sectoral measures for comprehensive watershed development and maintenance,
- c) consolidation of treatment efforts through projectised approach with proper choice of treatment measures,
- d) emphasis on sustainability of treatment measures and providing means for settled cultivation,
- e) multi-disciplinary approach at district and project level, while evolving programme measures and conducting farmer training, involving various line departments, like Agriculture, Forests, Horticulture, Animal Husbandry, Minor Irrigation etc.; and
- f) to mitigate ill effects of shifting cultivation by introducing appropriate land use as per land capability and adoption of improved technologies.

4. Components of the Scheme:

The main components of the Scheme are :- (i) Administrative Component (24%), (ii) Watershed Work - Development Component (55%), and (iii) Rehabilitation Component (21%). The development component includes treatment of arable and non-arable land with complete drainage line treatment, water harvesting structures, farm ponds, horticulture, forestation, silvipasture, crop demonstration, etc. The rehabilitation component includes improvement of land based and household production system depending on the choice of the farmers like piggery, poultry, duckery, fishery, sericulture, basket/rope making, tailoring, carpentry, etc. About 60% of total expenditure is utilized for the components leading to creation of employment in remote rural areas.

5. Selection of Watersheds:

The scheme is being implemented through Government and Non-Government Organizations, Scientific and Technical Institutions in the North-Eastern States in the watershed where a minimum of 25% area is under shifting cultivation (abandoned jhum and current jhum) and 50%, above families are engaged in shifting cultivation as the only means of livelihood, and are living below poverty line. The Watersheds are identified by the District Level Watershed Committee on the request of PIA and finally approved by the State Level Steering Committee.

6. Financing Pattern:

Additional Central Assistance to the North – Eastern States is 100% grant. The important key issues relating to the finance are:-

- a) Emphasis is given for settlement of jhumia families by assisting all the needy jhumia families through land based/household production systems.
- b) The unit cost of development is Rs.12, 000.00 per ha.
- c) Financial assistance for production system is Rs.25,000.00 per family
- d) Watershed must have at least 25% of the area under shifting cultivation
- e) Creation of corpus of fund for maintenance of assets & building marketing facilities.

7. Monitoring Mechanism:

The Programme is being implemented by the Multidisciplinary team of Officers of State Governments on Watershed basis. The data in prescribed Performa are collected at project and State level and periodically reported to Government of India. At national level the programme is reviewed in meeting of Standing Committee constituted for this purpose beside periodic visit of State and National level functionaries. In addition to Annual Desk Review, Quarterly Desk Review is also conducted to assess the actual implementation and phase in the implementation, if any at national level. At State level also, the progress of implementation of programme is monitored by Project and State Level Committee namely, Project/Village Level Committee and State Level Implementation Committee constituted for this purpose.

8. Impact of the scheme:

The evaluation study of selected three watersheds of Nagaland was conducted by NERIWALM, Tezpur, Assam, and AFC; Bombay conducted the evaluation study of selected two watersheds of Nagaland & one watershed of Tripura. Another study was under taken by National Productivity Council (NPC), New Delhi for selected watersheds of the Nagaland and Tripura. The major impact as reported by different evaluation agencies are:

- a) Decrease (30%) in shifting cultivation area due to adoption of settled cultivation.
- b) About 27% Jhumias have stopped Jhum practice
- c) Jhum area per family has been reduced from 0.84 ha. to 0.56 ha. due to implementation of the scheme of WDPSCA.
- d) Sustainable increase in productivity of agricultural crops, horticultural crops, livestock, inland fisheries, etc. was reported.
- e) In case of Paddy cultivation, 13% increase in production was reported.
- f) Overall increase in income of about 25% of the Jhumia family was reported.
- g) Increase in cropping intensity by 40 % was observed.
- h) Due to awareness of the scheme, active participation and contribution from community was noticed for watershed development and maintenance of assets created.
- i) The new institutional set up viz Watershed Association/Panchayats has helped in promoting participatory approach during project period & even beyond project period.

10. Achievements:

Under this programme upto IX Plan, an area of 2.58 lakh ha. was developed with expenditure of Rs.166.29 crore, during X Plan (2002-07) an area of 1.34 lakh ha. was developed with expenditure of Rs.127.88 crore and since inception upto X Plan, an area of 3.92 lakh ha. has been developed with an expenditure of Rs.294.17 crore. The details of State-wise and Plan-wise achievement including achievement of 2007-08 and 2008-09 are given in Annexure-I.

State – wise extent of Shifting Cultivation Area, Achievements upto IX Plan, during X Plan, upto X Plan, Achievement 2007-08 and 2008-09 for Watershed Development Project for Shifting Cultivation Area (WDPSCA)

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

S.No.	Name of State	Area under Jhum*	Achievement						Achievement 2007-08		Achievement 2008-09 **	
			Upto IX Plan		During X Plan		Upto X Plan		Phy.	Fin.	Phy.	Fin.
			Phy.	Fin.	Phy.	Fin.	Phy.	Fin.				
1.	Arunachal Pradesh	2.10	0.199	12.46	0.075	7.53	0.274	19.99	0.035	350.00	0.018	175.00
2.	Assam	1.39	0.139	10.75	0.196	19.55	0.335	30.30	0.050	550.00	0.060	600.00
3.	Manipur	3.60	0.513	26.53	0.171	15.41	0.684	41.94	0.060	600.00	0.089	885.00
4.	Meghalaya	2.65	0.256	17.92	0.266	16.98	0.522	34.89	0.079	752.40	0.023	275.00
5.	Mizoram	1.89	0.660	39.02	0.208	25.70	0.868	64.72	0.055	550.00	0.060	600.00
6.	Nagaland	1.91	0.602	45.12	0.281	28.50	0.883	73.62	0.115	1050.00	0.050	525.00
7.	Tripura	1.12	0.208	14.49	0.145	14.21	0.353	28.71	0.033	350.00	0.018	175.00
	Grand Total	14.66	2.577	166.29	1.342	127.88	3.919	294.17	0.427	4202.40	0.318	3235.00

* Source: As per ICAR Research Complex for NEH Region (NEC Hand Book – 2001)

** Achievement as reported by the State upto January 2009.

