

**Ministry of Rural Development, Department of Land Resources
NBO Building, 'G-Wing', Nirman Bhavan, New Delhi**

**Monitoring, Evaluation and Learning under IWMP
(Terms of Reference for External Agencies at DoLR)**

Background:

The Integrated Watershed Management Programme (IWMP) is one of the flagship programmes of the Govt. of India and is being implemented by the Department of Land Resources (DoLR) in all states of the country having an outlay of around Rs. 29,000 Crores for the 12th Plan. In addition, a new programme assisted by the World Bank called Neeranchal is being initiated. The programme envisages to restore the ecological balance by harnessing, conserving and developing degraded natural resources such as soil, vegetative cover & water through watershed management initiatives.

Need for Monitoring & Evaluation (M&E)

The project has adopted a functional result based monitoring system during the life of project itself. It is a near real time monitoring system including high learning option with on course corrective mechanism. The policy linkage option is kept open throughout the project, which provides critical input in the subsequent phases of project. Thus greater emphasis is being laid on the learning aspects through the M&E system.

Objectives of the Assignment

In the above context it is proposed to assign the M&E task to external independent agencies. This is to ensure objectivity in the field of M&E. Third party monitoring would enhance the transparency and credibility of the programme. This would specifically help to inculcate a learning process during the project cycle enabling the adopting of corrective measures.

Scope of work of ME&Learning agencies at DoLR: -

- I. Design M&E framework & carry out a impact assessment at national/regional level.
- II. Support DoLR for effective functioning of MIS system.
- III. Conduct a 'process check feedback' and pathway analysis.
- IV. Conduct a Meta-Evaluation of work carried out by ME&L agencies at the SLNA level.
- V. Support DoLR in Capacity Building with respect to ME&L at national/regional level.
- VI. Support DoLR in synthesizing MEL&D findings at regional/national levels & develop policy linkages.
- VII. Conduct thematic studies and record best practices & case studies.
- VIII. Develop & operationalize dissemination and learning mechanism.
- IX. Develop a MEL&D Manual for IWMP.

Description of activities to be carried out: -

I. Design M&E framework & carry out impact assessment at the National level:-

The MEL agencies will develop a broad framework of functional ME at DoLR. The agencies shall develop this in consultation with DoLR & other key partners. Key performance indicators are to be identified & frequency of monitoring & methodology will be developed for data collection. Besides the project component are to be understood and related indicators to track the progress in each component to be developed. However there shall be a scope for flexibility to revisit these indicators & methodologies down the project time line. A broad framework would be arrived at with intensive desk review & consultation with DoLR.

The MEL&D agencies will carry out the impact assessments at the national level. This would include the following.

Baseline Study: - For baseline study the agencies would depend on state level MEL agencies. The socio-economic & bio-physical data of the sub-watershed level would be obtained from the state level agencies. However, the related remote sensing imaginaries and analysis of the same watershed can be obtained by NRSC the IP of project. This study would provide a benchmark to the indicators identified for monitoring.

The sample size to be considered would be 10-15% of the sample size considered by state level MEL agencies. A synthesized report of all States with agro-climatic region wise analysis would be prepared by the national level agencies.

Mid Term Evaluation: - The mid-term evaluation would be carried out during middle of the project cycle, generally in the third year. The same methodology considered at the benchmarking/baseline study would be followed for mid-term evaluation. However in this study the field data i.e. watershed level data has to be collected by the national level agencies (both socio-economic & bio-physical). The samples of baseline would be revisited during the mid-term.

End of Project Evaluation: - Those samples studied during baseline and mid-term would be revisited during the end of project evaluation. This would be conducted after completion of the project implementation preferably to be completed within three months of project completion/withdrawal.

The samples to be visited are same units considered for baseline & mid-term evaluation. The report would provide a comparative analysis of all the parameter/indicators considered over time. A uniform sampling methodology detailing the sample size, methodology of data collection, area and analytical frame work to be adopted at the national level. RS/GIS analysis details also will follow a uniform pattern (detailed sampling strategy indicators considered and analytical framework provided in annexure _____). The sample considered to be such that all agro-climatic zones in the state are to be covered.

Key deliverables: -

- Inception report.

- Baseline report.
- Mid-Term Evaluation report.
- End of Project Evaluation report.

II. Support to design, develop and deploy an MIS at the DoLR (national level).

Already NIC has developed a MIS-a reporting system. The agencies need to develop a reporting/MIS system for M&E. The MEL&D agency will design, develop and deploy MIS, as per requirements of the DoLR. The specifications of the MIS to be deployed would be provided by the DoLR. The MIS would connect all the SLNAs with DoLR & a uniform reporting system would be adopted under IWMP for the entire country.

The MEL agency would also assist in effective functioning of MIS of DoLR. The SLNA level & would also provide the hand holding to operationalize the same. Capacity Building for this at DoLR & SLNA would be conducted by the agency.

The MEL agency would also prepare analytical report 'progress analysis' based on the MIS data, once in 4-6 months.

Key deliverables: -

- MIS software made functional at DoLR & SLNA.
- Progress Reports as per schedule.
- Capacity Building of identified staff at DoLR & SLNA level.

III. Conduct a 'Process-Check Feedback' on the process monitoring carried out at the state level & carry out 'Pathway Analysis'

This would have two components: -

a) Tracing the process followed by the SLNA and on its mandated task & targets to words DoLR within a given time, with respect to IWMP. This would include the activities to be carried out by the SLNA, on a given time frame and its progress status. E.g.:- Contracting agencies (like NGO or any other) for any of activities to be carried out under IWMP; Contracting the MEL agencies, Submission of DPR to DoLR; Submission of expenditure status, of any other details specified by DoLR; Adoption of MIS etc. It will be a quarterly report detailing the target set for specific activities & its status. It will provide a brief analysis of the situation, providing the reasons for a given situation & possible alternatives if there is a need for improvement.

b) The second component would be to have a cross verification of process monitoring reports submitted by the state level MEL agencies, at quarterly interval on sample basis. This would be include analysis of 10% of process monitoring reports of sampled watershed with field level cross checking.

Based on the 'process check' & MIS data progress analysis, a pathway analysis would be carried out by the MEL agency. The analysis would highlight the critical issues that need managerial intervention at the operational or policy level within the specified time. This has to be carried out once in 4 months.

Key deliverables: -

- Process check, feedback report.
- Pathway analysis.

IV. Meta-evaluation of work carried out by State level MEL agencies.

The National level agencies would cross verify 10% to 15% of the reports/activities carried out by the State level MEL agencies at regular intervals. This is applicable to process monitoring & impact assessments, thematic studies or any other studies.

Besides, the National level agencies would provide assessment and feedback on the functioning of the MEL agencies including the personnel, logistic and adherence to reporting schedule & transparency aspects as against the agreed ToR. This would be carried out once in a year.

Key deliverables: -

- Meta-evaluation report.
- Feedback assessment on the functioning of MEL agencies.

V. Support DoLR in Capacity Building on MEL at National & SLNA level.

The agency would develop modules for Capacity Building with respect to MEL for IWMP. The agency would also assist the DoLR to conduct workshops and trainings at National & SLNA level for strengthening the ME&L. The agency also would support with resource personnel for such workshops and trainings. The agency would also provide core-inputs for the half yearly workshops to be organized by DoLR to disseminate the learnings. The agency would provide a cross-learning platform through these annual workshops.

Major findings, learning and best practices across the states would be synthesized at the national level by the agency & report would be prepared. Besides the agency would also develop a ME&L Capacity Building action plan for the IWMP at DoLR & SLNA level.

Key deliverables: -

- Capacity Building modules for MEL.
- Action Plan for Capacity Building & DoLR & SLNA level.
- Inputs for annual workshops.

VI. Support DoLR in synthesizing MEL findings of the SLNA and to help developing policy linkages at the National level.

The agency will collate and synthesize the major findings of state level MEL agencies. Further it would also suggest policy linkage options for the IWMP at the national and regional levels.

Key deliverable: -

- Synthesized report on major findings with policy linkage options.

VII. Conduct thematic studies, record best practices & case studies.

The agency would conduct specific thematic studies providing a national perspective of the theme under consideration. It can draw resources from similar thematic studies carried out by state level MEL agencies. The themes to be studied will be finalized in consultation with DoLR. Themes like covering Hydrological aspects, Social inclusiveness, Convergence, Role of PRIs, Women empowerment, Comparative analysis of SLNA or PIAs across the states etc.

The agency will also record the best practices observed. Besides the agencies also need to collate & synthesize the best practices reported by the SLNA level MEL agencies. If need be, these are to be re-documented with proper editing and value addition.

Similarly the specific case studies found at any level are to be documented & submitted to DoLR by these agencies, in addition to synthesizing the case studies prepared by state level MEL agencies.

Key deliverables- Specific thematic study reports.

Case studies of best practices.

VIII. Develop & operationalize a feedback system with learning mechanism.

The MEL agency would deploy a effective feedback system linking DoLR, SLNA & other project partners at National level. This would be through ICT based network system and also with more formal reporting systems on regular specified intervals. The agency would deploy a coordinator at the DoLR level interfacing the agency, DoLR & SLNA. The agency would provide information on issues as prioritized by the DoLR as per project requirement. A regular presentation (Once in 3 months) at the DoLR on its findings (based on the process checks as per the indicators specified) would be done by the agencies.

Key deliverables- Quarterly feedback report.

IX. Develop a ME&L manual for IWMP & Neeranchal project.

The agency would develop a operational manual for MEL activities at DoLR & SLNA level. This would be developed based on inputs from DoLR, SLNAs & State level MEL agencies. Inputs from other partners/stakeholders also need to be considered in preparing the manual. The manual would detail the role & responsibilities of ME&L agencies under IWMP. It would also include various indicators to be monitored & the process that to be monitored at different levels. Types of monitoring and evaluations with tools & approaches & methodologies would be a part of this document. Sampling strategies for impact assessment & thematic studies also to be included in this. Application of state of art technology like RS/GIS and their appropriate usage need to be illustrated. The document should be a ready reference on all aspects of M&E under IWMP/Neeranchal.

Key deliverable- M&E manual (detailing entire M&E framework with operationalization plan)

KEY DELIVERABLES, PROPOSED MILESTONES, AND REPORTING

Sl. No.	Key Deliverables	Frequency or Timing	Description
1.	<p>M&E framework and Impact Assessment</p> <ul style="list-style-type: none"> Inception Report with framework Baseline Report Mid-Term Evaluation Report End of the Project Evaluation Report 	<p>1st Month</p> <p>3rd Month</p> <p>3rd Year or as decided by SLNA</p> <p>End of the Project</p>	<p>Develop a framework with clear understanding of project through meetings and desk review with the DoLR and SLNAs. Inception report will include design of M&E concept, personnel, indicators to be monitored, frequency of monitoring, method of data collection etc. It will serve as an overall guidance manual for M&E.</p> <p>The samples considered in the Baseline will be revisited during the mid-term and end of project. Comparative analysis over time will provide changes recorded due the project.</p>
2.	<p>MIS Reports</p> <ul style="list-style-type: none"> MIS software made functional at DoLR & SLNA Progress Monitoring Repots Capacity Building materials for MIS 	<p>4th Month (once)</p> <p>Every 6th Month</p> <p>6th Month (once)</p>	<p>The Progress Monitoring Report would be submitted once in every six month. The inputs from MIS are analyzed and submitted; the major issues are highlighted and area needing project intervention is identified.</p> <p>Capacity Building modules developed as per project needs.</p>
3.	<p>Process Check Feedback</p> <p>Pathway analysis</p>	<p>Once in 3 months</p> <p>Once in 6th month</p>	<p>Feedback on functioning of SLNAs as against the set targets for the period with the analysis on the processes carried out. It will also include a cross verification of the process reports findings submitted by the State level M&E agencies. The limitation are identified if any and suggestion are made</p> <p>The pathway analysis will be carried out considering both the process monitoring feedback and MIS inputs for the last six months. Major issues are highlighted.</p>
4.	Meta Evaluation Report	Annually	About 10 to 15% of the activities carried out and reports generated by the State level MEL agencies would be subject to cross verification and the report will be submitted to DoLR.
5.	<p>Capacity Building</p> <ul style="list-style-type: none"> Design and deliver Training Modules for 	6 th Month	Training modules for M&E key personnel as per the requirement of DoLR & SLNA would be developed and submitted and the agency will

Sl. No.	Key Deliverables	Frequency or Timing	Description
	<p>M&E</p> <ul style="list-style-type: none"> • CB Action Plan for DoLR & SLNA • Inputs for annual workshops 	<p>Annually</p> <p>Annually</p>	<p>carry out the CB for the DoLR & SLNA.</p> <p>Annual action plan will be drawn and activities carried out for the year by the agency in consultation with the DoLR. The plan will be prepared in advance.</p> <p>DoLR will organize the workshops for learning across the States. The M&E agency provides the major inputs for these workshops.</p>
6.	Synthesized MEL Reports with policy linkages	Annually	This would comprise synthesized findings of various reports submitted to SLNA by the State level MEL agencies. The agency at the DoLR level would provide a synthesized findings and the possible policy options at the National level are also detailed in this report.
7.	Thematic Reports	Annually	Themes to be studied would be identified in consultation with the DoLR and SLNAs. The themes should be relevant to the project and help in developing policy linkages.
	Best Practices and Case studies	Ongoing (at least 2 or 3 per annum)	As and when they occur the best practices and case studies documented by the agencies. It also should synthesize the reports submitted at the SLNA level by the State level MEL agencies.
8.	Feedback Mechanism developed and established. Regular reporting system streamlined.	Quarterly	A regular feedback exercise with the DoLR to be carried out every quarter. The modalities of presentation and reporting system are to be carried out as per the requirements of DoLR.
9.	Manual of ME&L	6 th Month	Manual detailing the end to end activities, process, methods of ME&L will be prepared by the agency. The manual will be ready reference covering all aspects of M&E under IMWP/Neeranchal.

Facilities to be provided by Client:

The client will facilitate access to key information available with the DoLR and SLNAs agencies. They will also facilitate client access to relevant staff in various agencies. DoLR would organize stakeholder workshops for carrying out of this assignment. DoLR will also coordinate with the SLNA and State level ME&L agencies to access the needed information for the agency. It will also provide feedback on the outputs.

Selection Criteria of Consultant Agency

The successful bidder/agency will be chosen based on the following criteria.

Criteria	% Weightage
<i>A) Technical Criteria</i>	100%
Relevant experience of team in respective technical areas cited in the scope of work and no. of staff exclusively available for the task.	25
Available logistic and infrastructure with the Agency	25
Relevant experience of delivering similar programs in India	25
Quality of the proposal (demonstrated understanding of objectives, completeness and coherence of response: work plan and timing, operational and management, deliverables)	25
Total	100

Key Areas of Expertise

The successful bidder/agency will be able to demonstrate extensive experience in designing and implementing M&E systems related to watershed related programmes and natural resource management programs in the country and also in developing countries. Specific, relevant and demonstrated experience will include: design and operation of M&E systems for watershed management or similar kinds of community based natural resource management operations; design and operation of integrated, computer based MIS for a successful M&E system. Delivering effective M&E services covering concurrent input-output and process monitoring, and periodic impact assessment; integration of new technology into M&E systems, for example GIS, remote sensing, GPS, satellite communications and video conferencing, etc.

The successful bidder/agency will have demonstrated high standards of collaboration with government, non-government, and private sector organizations. Experience working with multi-national and/or bi-lateral donors is a strong asset.

Key Personnel Requirements

It is expected that the successful bidder will field adequate numbers of qualified key personnel to support effective delivery of contracted activities. Senior staff at the national level should have at least 15 years of relevant experience, managing integrated M&E programs. Field-based staff will require relevant experience working with communities, primarily in the region, and be able to converse fluently in both English as well as the local language. It is anticipated that the successful bidder would put forward a proposal outlining how the following generic skill sets (and others the bidder feels are required) will be fielded and effectively applied to support project timely implementation and management of project activities, including building linkages and partnerships. Specific personnel linked to defined positions and their relevant experience should be listed in an annex in the proposal. Suggested personnel include the following:

S.N	Area of expertise	Qualification	Role & task
1.	<i>Team leader</i>	Master's degree in relevant discipline with a proven track record in leading M&E activities should have at least 15 years' experience in monitoring and evaluation system in community driven development based on natural resource management particularly including watershed management.	Over all in charge of monitoring activities. Provide leadership and guidance, coordinate the entire ME activities. Interface with DoLR and SLNAs. Responsible for regular submission of reports as per schedule. Attend Regular process monitoring reviews at the DoLR and make presentation.
2.	<i>Systems expert(s)</i>	Post graduate in IT, and 10 years' experience in developing MIS and web based information system. Working experience in development projects in developing MIS and GIS. Experience in database designing & development, and management. Handling of GIS and web-based information systems;	Design and establish operational MIS system for M&E purpose. Develop data management system for M&E purpose. Assist DoLR and SLNA in get in the MIS inputs. Prepare MIS input output monitoring reports. Hand holding in training to operationalize the MIS (existing IWMP MIS) at the DoLR and SLNA level.
3.	<i>Institutional Development Specialist/Sociologist</i>	PhD in Sociology/ Rural Development/Rural Management with 10 years relevant experience in the relevant field. The specialist should be well conversant with the methodology of institutional development and have a strong and proven orientation towards participatory research, especially process monitoring and impact monitoring and beneficiary cost-benefit assessment	Assess the functioning of CBOs, NGOs, other stakeholder Institutions working for the project. Develop tools and indicator for monitoring specific institutions against their ToRs. Coordinate specific thematic studies with respect to institutional functioning at various levels. Make presentations at the DoLR, SLNA and other levels. Guide the field staff in collecting data at the field level. Develop relevant data collection formats for the projects with respect to process monitoring, impact studies, relevant thematic studies and case studies of best practices.
4.	<i>Agricultural & Soil Conservation Expert</i>	MSc in Agriculture Sciences/ Agricultural Engineering. Experience in watershed planning & Monitoring quality assessment of soil conservation activities will be added advantage.	Develop monitoring indicator for soil conservation activities and other sector as well. Guide the develop monitoring tools and identify frequency of monitoring with respect to soil and water conservation activities along with quality assessments. Prepare regular reports for the sector and interface with

S.N	Area of expertise	Qualification	Role & task
			the DoLR and SLNA with respect to sector.
5.	<i>Hydrologist</i>	MSc in geo -hydrology/water resource engineering. Experience of working in watershed projects and involved in watershed planning & monitoring. Knowledge of RS&GIS usage for watershed planning and management is desirable.	Develop hydrological inputs to identify hydrological indicators for monitoring. Prepare monitoring plan and assess rain gauges & run off measurement. Provide the technical specifications, thereof. Provide hydrological parameters/indicators for baseline, midterm & end project impact assessments).
6.	<i>Statistician</i>	MSc. In statistics, Phd desirable. Proficiency in usage of SPSS package, expertise in sampling techniques. Post-graduation in statistic with experience in sampling methods and other analytical methods. At least five year experience in the field of designing the study and methodology developments.	Design common methodology for baseline & impact assessments. Analyze MIS data from time to time & prepare reports. Assist in designing methodology for thematic studies. Aggregate & Synthesis reports. Develop assessment tools (statistical) for feedback assessment on trainings and other economic impact studies. Provide any other analytical support based on all types of data.)
7.	<i>Capacity Building Expert</i>	MBA in Rural Development or Post graduate in MSW/Sociology/agricultural with about 10 years' experience in field of capacity building and training activities. Diploma in IGA from recognized institute.	Develop training modules and capacity building framework for the project particularly at the CBO level. Develop indicators for monitoring for all Capacity Building & Training activities. Capacity building convergence with other projects. Develop content & annual action plan for Capacity Building. Assist in organizing capacity building and training workshops. Coordinate entire capacity building activities of all sectors).
8.	<i>Livelihood Expert</i>	MBA in Rural Development or Post graduate in MSW/Sociology/agricultural with about 10 years' experience in field of livelihood activities. Diploma in IGA from recognized institute.	Develop monitoring indicators for IGA sector. Develop financial and marketing linkage indicator for monitoring in the IGA sector. Monitoring of convergence with other projects. Develop content & action plan for IGA sector implementation Assist in organizing capacity building and training workshops for IGA). Interface with Animal Health camps and livestock sector in general.

S.N	Area of expertise	Qualification	Role & task
8.	<i>GIS/RS Expert</i>	MSc. in Natural Science with GIS/RS expertise. Phd. in the core area is desirable. 10 years' experience in Remote sensing & GIS application for watershed planning & monitoring.	Analyze different layers of Satellite imageries for monitoring of sub-watersheds. Compare pre&post land use land cover based on imageries. Provide a synoptic pre& post analysis on selected watersheds. Work on GIS platform providing special analysis of monitoring indicators.
9.	<i>Documentation Specialist</i>	MSc/MA in Mass Communication/Journalism. 5 years' experience in the relevant field (usage of editing software is derivable).	Design a documentation system at DoLR for IWMP. Develop basic/general documentation design & procedure for case studies & best practices. Usage of documentation equipment like camera (higher/technical) & editing of documents received. Help in developing charts, brochures, wall painting materials (conceptual) for IWMP. Preparation of reports, case studies etc.)
10.	<i>Coordinators/Supervisors</i>	Masters in Social Science having at least 7 years experiences in relevant field. Person should have experience of PRA, knowledge on participatory monitoring and familiar with data collection techniques/tools.	Coordinate in the supervise field level activities carried out by Project Assistance with respect to process monitoring, impact assessment, thematic study and according of best practices. Supervise and coordinate data collection at the community level for monitoring purpose. Ensure timely and regular information collection by the field staff.
11.	Field Officers	At least Bachelor's degree in relevant disciplines with 5 years of experience on field research, participatory monitoring, and data collection.	Actual data collection with respect to all monitoring indicators from the community at the household level. Interface with the all sectorial interventions and institutional working at the field level. Collect information with respect to all sectors of monitoring and evaluation. Responsible for any data to be collected from time to time as per the monitoring needs.
12.	<i>Experts in watershed management, forestry, soil science, hydrology and biodiversity can be deployed on part-time basis to assist the project as per requirement.(Task- provide guidance to any specific thematic studies to be carried out by the project time to time</i>		
13.	<i>Additional Office staff (Data entry operator, Administrative support staff etc.) & Logistic support system per requirement</i>		

Key hardware requirements

The successful bidder should have a properly furnished office establishment at Delhi. It should be facilitated with a logistic & infrastructure supports like computers, printers, telephone connectivity etc. The contractor will need to ensure compatibility of their own GIS & ICT with systems being established (or already in place) and the systems at DoLR so that data and reports can flow seamlessly from the contractor to the client.

Proposal expectations

The Technical Proposal should include at least the following:

- Comments on the Terms of Reference (TOR), if any;
- Based on the above TOR and including the Consultant's comments on those TOR, a detailed description and outline of the study set-up as proposed by the Consultant;
- A short Company/ Organisation profile of the Consultant;
- An overview of relevant experiences of the Consultant with similar surveys and studies;
- Conceptual design of the project monitoring and evaluation system and process monitoring matrix;
- A conceptual outline of the proposed timing and methodology (including proposed sampling techniques/methods, proposed types/methods of data collection for the various identified activities, proposed method of data processing, analysis, including detail of the statistical analysis, reporting frequency, information about hardware and software to be used, etc.);
- Details of proposed staffing inputs (including qualification, experience and timing of their input);
- Proposed time schedule of activities (including reporting), building on the preliminary deliverables and milestones (table 1) in the TORs;
- Outline of reports to be produced (including frequency);
- A list of recently (last 2 years) completed and on-going similar surveys/studies (names of clients and financing agencies should be included);

Reporting and supervision arrangements

In all aspects of this assignment, the M&E contractor team leader will report to the Project Director / Joint Secretary (WM), DoLR. The M&E teams will work in close and regular coordination with the DoLR. The contractor team, in coordination with the DoLR teams will ensure stringent monitoring to identify and correct any shortcomings in the implementation of the M&E contract.

INTEGRATED WATERSHED MANAGEMENT PROGRAMME (IWMP)

Details of no. of projects, area (m.ha), sanctioned and central funds (Rs. in crore) released from 2009-10 to 2013-14 (as on 30.09.2013)

S. No.	State	2009-10			2010-11			2011-12			2012-13			2013-14			Total		
		No. of projects	Area	Funds released	No. of projects	Area	Funds released	No. of projects	Area	Funds released	No. of projects	Area	Funds released	No. of projects	Area	Funds released	No. of projects	Area	Funds released
1	Andhra Pradesh	110	0.473	30.68	171	0.741	119.8	173	0.747	160.94	102	0.425	125.137	97	0.407	133.25	653	2.79	569.81
2	Bihar							40	0.192	3	24	0.120	12.18			15.42	64	0.31	30.60
3	Chhattisgarh	41	0.209	13.69	71	0.284	50.38	69	0.299	62.37	27	0.124	0				208	0.92	126.44
4	Goa#																		
5	Gujarat	151	0.708	50.23	141	0.714	161.73	138	0.712	160.71	59	0.317	329.237				489	2.45	701.91
6	Haryana							47	0.179	11.63	13	0.060	5.226			14.2	60	0.24	31.06
7	H.P.	36	0.204	16.51	44	0.238	57.77	30	0.148	48.93	21	0.100	8.023	46	0.167	46.076	131	0.69	177.31
8	J & Kashmir							41	0.179	0	43	0.189	38.268				130	0.54	38.27
9	Jharkhand	20	0.118	7.64	22	0.097	24.1	45	0.242	15.7	30	0.163	48.1731				117	0.62	95.61
10	Karnataka	119	0.492	81	127	0.547	70.96	116	0.548	127.41	68	0.333	334.55	63	0.323	311.87	493	2.24	925.79
11	Kerala				26	0.142	11.01	15	0.082	10.81	20	0.097	4.81				61	0.32	26.63
12	M.P.	116	0.671	43.48	99	0.548	113.25	111	0.615	108.6	37	0.211	128.30			135.57	363	2.05	529.20
13	Maharashtra	243	0.996	67.77	370	1.614	208.14	215	0.931	378.69	120	0.527	501.60	116	0.519	180.3487	1064	4.59	1336.55
14	Odisha	65	0.336	21.77	62	0.35	73.47	68	0.38	77.53	39	0.212	89.70			136.91	234	1.28	399.38
15	Punjab	6	0.035	2.29	13	0.053	3.45	14	0.067	8.44	12	0.046	14.888	14	0.067		59	0.27	29.07
16	Rajasthan	162	0.926	69.92	213	1.257	257.47	229	1.301	318.33	145	0.788	424.53				749	4.27	1070.25
17	Tamil Nadu	50	0.26	16.17	62	0.311	60.16	56	0.271	17.57	32	0.171	227.768			116.397	200	1.01	438.07
18	Uttar Pradesh	66	0.35	22.68	183	0.897	132.13	174	0.86	164.46	64	0.318	128.43	67	0.328	88.09	554	2.75	535.79
19	Uttarakhand				39	0.207	15.97	18	0.099	2.34	8	0.040	4.218				65	0.35	22.53
20	West Bengal							77	0.323	16.06	42	0.183	40.313				119	0.51	56.37
	North-Eastern States																		
21	Arunachal	13	0.068	5.45	32	0.091	20.08	41	0.124	22.09	28	0.073	15.970			110.8314	114	0.36	174.42
22	Assam	57	0.221	32.53	86	0.36	40.82	83	0.37	37.53	54	0.216	42.97				280	1.17	153.85
23	Manipur				27	0.128	10.37	33	0.17	15.33	15	0.07	33.75	13	0.062	30.2836	88	0.43	89.73
24	Meghalaya	18	0.03	2.43	29	0.052	9.88	14	0.038	12.87	12	0.039	37.43	11	0.0357	28.06	84	0.19	90.67
25	Mizoram	16	0.062	5.06	16	0.066	17.14	17	0.072	5.84	15	0.059	16.439	14	0.058	69.1778	78	0.32	113.66
26	Nagaland	22	0.106	8.56	19	0.083	26.71	20	0.086	59.42	17	0.069	76.418	20	0.079	72.43	98	0.42	243.54
27	Sikkim	3	0.015	1.17	3	0.014	3.88	3	0.014	1.15	2	0.007	8.178				11	0.05	14.38
28	Tripura	10	0.03	2.45	10	0.03	8.16	11	0.03	18.17	17	0.044	24.017	8	0.035	24.33	56	0.17	77.13
	Grand Total	1324	6.31	501.48	1865	8.824	1496.83	1898	9.079	1865.92	1066	5.00	2720.527	469	2.0807	1513.2485	6622	31.29	8098.01