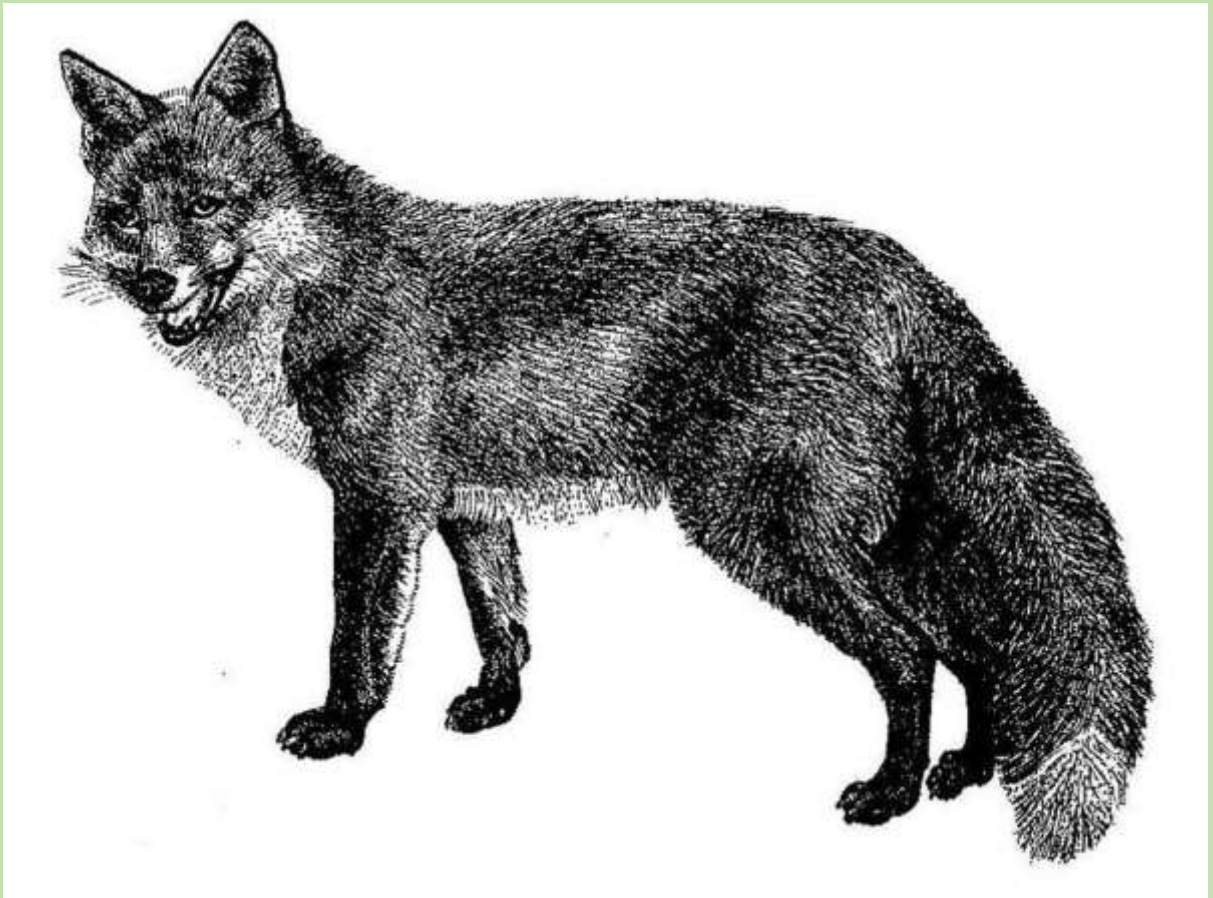


Institutional Structures and Environmental Management



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I INTRODUCTION

This section attempts to describe and assess the institutional structures, within the government, for meeting the environmental obligations before the nation and implementing the various tasks and strategies outlined in Table I. The four environmental obligations before the nation are:

1. To protect and conserve nature and natural resources.
2. To regenerate nature and make natural resources more productive.
3. To ensure equitable access to, and control over, nature and natural resources.
4. To formulate and adopt a model of development that is environmentally and socially sustainable.

In assessing institutional structures, an attempt has been made to review administrative infrastructures, schemes, policies, laws and financial allocations.

II FINDINGS

1. Administrative Structures and Schemes

1.1 Ministry of Environment and Forests, Government of India

Based on the recommendations of the Report of the Committee for Recommending Legislative Measures and Administrative Machinery for Ensuring Environmental Protection, a Department of Environment was set up, in 1980, within the Government of India. Over the years this has expanded into a full fledged Ministry of Environment and Forests.

The Ministry has basically four divisions:

- Environment
- Forests and Wildlife
- Ganga Project Directorate
- National Afforestation and Ecodevelopment Board

In addition, there are various institutions and bodies under the Ministry of Environment and Forests. Some of these are:

1) Indian Council for Forestry Research and Education, Dehradun, and its constituent institutions:

- a) Forest Research Institute, Dehradun
 - b) Institute for Wood Science and Technology, Bangalore
 - c) Institute of Forest Genetics, Coimbatore
 - d) Institute of Deciduous Forest, Jabalpur
 - e) Institute of Rain Forest, Jorhat
 - f) Institute of Arid Zone Forest, Jodhpur
- 2) Central Pollution Control Board, New Delhi
- 3) Wildlife Institute of India, Dehradun
- 4) Indira Gandhi National Forest Academy, Dehradun
- 5) GB Pant Himalayan Institute, Almora
- 6) Centre for Environmental Education, Ahmedabad
- 7) Ecological Research & Training Centre, Bangalore
- 8) C.P.R. Environmental Education Centre, Madras
- 9) Salim Ali Centre for Ornithology and Natural History, Coimbatore
- 10) Botanical Survey of India, Calcutta
- 11) Zoological Survey of India, Calcutta
- 12) Forest Survey of India, Dehradun
- 13) National Museum of Natural History, New Delhi
- 14) Indian Institute of Forest Management, Bhopal
- 15) Indian Plywood Industries Research Institute, Bangalore
- 16) Centre for Mining Environment, Dhanbad

A review of the activities of the ministry and its institutions and bodies suggests that:

A. Adequate institutional infrastructure seems to exist with regards to the following tasks and strategies

- 1) Conservation and regeneration of forests
- 2) Conservation of wildlife
- 3) Prevention and Control of air and water pollution
- 4) Ecodevelopment and Joint Forest Management
- 5) Research and Development in Forestry
- 6) Monitoring of Pollution and of forest canopy cover.
- 7) Forestry training

B. Some, though inadequate, institutional infrastructure exists for the remaining tasks and strategies (of those listed in Table I), except for:

- 1) Conservation of Rangelands
- 2) Protection of diverse and traditional ecological cultures and systems of knowledge.

For the above two, no infrastructure seems to be in position. For details see table 1.

An assessment of the schemes of the MOEF suggests that there are no schemes for :

Prevention and control of land and noise pollution, conservation and regeneration of coastal regions (though mangroves and corals are

covered), conservation and regenerations of rangelands, Western Ghats, Eastern Ghats, and the Aravallis. Protection of harbours and shipping lanes, irrigation command areas, urban areas, mining and oil extraction areas, industrial belts. Protection of the ozone layer. Protection of the climate. Conservation and management of water, energy and minerals. Protection from occupational health hazards and nuclear hazards. Protection of diverse and traditional ecological cultures and systems of knowledge.

Zonation, efficient use of resources, recycling of resources and use of alternatives.

For details see Annexure I.

1.2 Other Ministries and Departments of the Government of India.

A large proportion of the environmental tasks and strategies involve Ministries and Departments other than the Ministry of Environment and Forests (MOEF). Infact, in some cases, the major responsibility rests with agencies other than the MOEF.

A look at other Ministries and Departments seems to suggest that some schemes and structures exist for:

- (i) Conservation and regeneration of forests - within Ministry of Rural Development and Ministry of Agriculture
- (ii) Conservation of wildlife - within Ministry of Agriculture
- (iii) Conservation of biological diversity - within Ministry of Agriculture
- (iv) Prevention and control of floods - within Ministry of Water Resources, Ministry of Agriculture
- (v) Prevention and control of droughts - within Ministry of Rural Development
- (vi) Prevention and control of desertification - within Ministry of Rural Development
- (vii) Prevention and control of erosion - within Ministry of Agriculture
- (viii) Prevention and control of pollution - within Ministry of Power, Ministry of Petroleum, Ministry of Rural Development, Ministry of Urban Development, Ministry of Agriculture, Department of Non-Conventional Energy Sources

- (ix) Conservation and regeneration of wetlands - within Ministry of Water Resources
- (x) Conservation and regeneration of coral reefs and coastal regions - within Ministry of Water Resources, Department of Ocean Development
- (xi) Conservation and regeneration of Islands - within Planning Commission, Department of Ocean Development
- (xii) Conservation and regeneration of mountain ranges - within Planning Commission
- (xiii) Conservation and regeneration of watersheds - within Ministry of Agriculture
- (xiv) Protection of irrigation command areas - within Ministry of Water Resources, Ministry of Agriculture
- (xv) Protection of urban areas - within Ministry of Urban Development
- (xvi) Protection of mining and oil extraction areas - within Ministry of Petroleum
- (xvii) Conservation and management of energy - within Ministry of Petroleum, Ministry of Power, Department of Non-Conventional Energy Sources, Ministry of Agriculture, Planning Commission
- (xviii) Conservation and management of land and soil - within Ministry of Agriculture, Ministry of Rural Development
- (xix) Protection from occupational health hazards - within Ministry of Labour
- (xx) Recycling of resources - within Ministry of Petroleum, Ministry of Power, Ministry of Agriculture, Department of Non-Conventional Energy Sources
- (xxi) Use of alternatives - within Department of Non-Conventional Energy Sources, Ministry of Power
- (xxii) Monitoring - within Ministry of Water Resources
- (xxiii) Education and awareness - within Ministry of Human Resources Development

A detailed listing of the relevant schemes is at Annexure II.

1.3 State Departments of Forests and Environment

All the States and Union Territories have departments looking after environment and forests, collectively or singly. In addition, most of the States have State Pollution Control Boards. Some of the States also have specialised institutions like the Kerala Forest Research Institute, Kerala, the Environmental Protection and Co-ordination Agency (EPCO), Madhya Pradesh, or the State Wastelands Development Board, Maharashtra.

A preliminary assessment of the administrative structures in the States suggest that though adequate structures exist for the conservation and regeneration of forests and wildlife, and for the prevention and control of air and water pollution, almost all the other tasks and strategies (of those listed in Table I) have none or very inadequate administrative structures. Though specific states have administrative structures in position for one or another of the remaining tasks and strategies, there is no uniformity about this.

An assessment of the environment and forestry schemes of the State suggest that many gaps exist in the coverage of tasks and strategies (See Annexures III & IV).

Forestry and Wildlife

All the States have well established forest and wildlife departments (except Pondicherry and Delhi) and have various schemes covering the different tasks and strategies.

Environment

Almost all the States have schemes for prevention, monitoring and control of pollution. The three States which were exceptions were Arunachal Pradesh, Meghalaya and Andaman & Nicobar Islands. Whereas Arunachal Pradesh, due to the small population and lack of industrialisation, might not immediately need a pollution control scheme, its absence in Meghalaya and in the A&N Islands was surprising as they both, especially the latter, have serious pollution problems.

Half the States have no schemes for environmental conservation and regeneration. Even large States like Bihar, Gujarat, Kerala and Tamil Nadu figure in this list.

Most States have schemes for environmental education, training, and awareness, a notable exception being Maharashtra.

A little over half (16) of the States have schemes on environmental research and monitoring. Only two States, Madhya Pradesh and Tamil Nadu have schemes on disaster management.

Most significantly, very few (7) of the States have schemes for environmental impact assessment. This is surprising considering that some of the States, like Andhra Pradesh, Gujarat, Karnataka, Maharashtra, and Tamil Nadu, without EIA capabilities, also have a large number of industries (see Annexure VIII) and other development projects.

2. Legal Structures

Comprehensive Central legislation seems to exist only in relation to the conservation and protection of forests and wildlife, prevention and control of air and water pollution, and for protection of animal rights (See Table 1).

If one discounts the general clauses in the Environment (Protection) Act, 1986, it seems that the following tasks and strategies have no legal mandate:

Tasks

Conservation/protection of wetlands, mangroves, coral reefs, rangelands, Islands, mountains, watersheds, harbours and shipping lanes, command areas, mining and oil extraction areas, industrial belts, ozone layer, climate, water, energy, land and soil, minerals, and cultures and systems of knowledge.

Strategies

Environmental impact assessment, fiscal and economic measures, planning and integration, efficient use and recycling of resources, use of alternatives, monitoring, people's participation and environmental awareness, have no legal sanction. Infact, current legal structures inhibit, in many ways, strategies such as ecodevelopment, joint forest management, people's participation, and equitable access and control of nature and natural resources.

3. Policy Thrusts

The various policy statements analysed cover almost all the tasks and strategies listed. However, notable exceptions are conservation and

regeneration of mangroves, and coral reefs (though there are points about coasts and marine ecosystems, in general), protection of harbours and shipping lanes, and of animal rights, and protection from nuclear hazards. For details, see annexure IX, X and XI.

4. Summary of Finding

Table I gives a summary of the status of institutional structures, for the environment, in the Central and State Government. The table is based on a 24 point matrix, with 12 tasks and 12 strategies. These are the tasks and strategies which are considered essential to meet the four national environmental obligations described earlier.

For each of these tasks and strategies (and the 42 sub-tasks and sub-strategies) the table lists:

Column 1. The Ministries/Departments responsible (jointly or exclusively) for the specific task or strategy. Though, in some senses, all ministries and departments could be shown to be involved in all the tasks and strategies, only those with a primary role are being listed here.

Though the Ministry of Environment and Forests is shown as a role player for each of the tasks and strategies, its role differs from task to task, and strategy to strategy. For some (like forest conservation, prevention and control of pollution, etc.) it has been given special legal powers and has the ability to regulate. On the other hand, for many of the other tasks and strategies (like conservation of resources, environmental impact assessment, etc.) the MOEF can only persuade and the primary onus is on other Ministries and Departments.

Column 2. The second column gives the status of central and centrally sponsored schemes, within the MOEF, dealing with the item. In some senses the presence of such schemes is even more important than the existence of an administrative structure,

for it is through these schemes that financial resources become available and the tasks and strategies get implemented. (A list and description of these schemes is at Annexure I).

Column 3. The third column gives the status of administrative structures for the task or strategy, within the MOEF.

Column 4. The fourth column gives the status of schemes relevant to the task/strategy in Central Ministries/Departments other than the MOEF. (A select list is at Annexure II).

Column 5. The fifth column indicates whether the primary responsibility for the implementation of the task or strategy is of the Central Government, the State Governments or both. Much of the regulatory powers are with both Central and the State Governments, under the various acts, except for the Forest (Conservation) Act, which is operated exclusively by the Central Government. However, this column indicates the responsibility for implementation. For example, as all forests are under the control of the State Governments, they are shown to be the exclusive responsibility of the State Governments. On the other hand, as both the Central and State Governments control industries, they are both identified as being responsible for the implementation of air and water pollution.

Column 6. The sixth column indicates whether there are specific provisions, in central acts, covering the task or strategy.

Column 7. The seventh column indicates the importance a task or strategy has been given in policy statements, in terms of how often a task or strategy has been mentioned in the policy documents studied (list at Annexures IX, X and XI). The numbers in this column do not include mentions of the task in policy documents dealing exclusively with that task. For example, this column

would not include the number of mentions "forest conservation" has in the forest policy, but would indicate that there are such mentions by a + sign.

Column 8. The eighth column indicates whether schemes, relevant to the task or strategy, exist in the environment and forestry sector of the States. (List of State forestry and wildlife schemes is at Annexure III and of State environment schemes at Annexure IV) .

TABLE I

STATUS OF INSTITUTIONAL STRUCTURES WITHIN THE GOVERNMENT

		CENTRAL GOVERNMENT					STATE GOVERNMENT		
TASKS		MIN/DEPT	MOEF		OTHER	IMPLEMENTATION LAWS	POLICY	E&F SCHEMES	
			SCHEMES	STRUCTURES	SCHEMES		THRUST		
			1	2	3		4		5
1	Conservation and Regeneration of Forests	EF, RD** AGRI	Y***	Y	Y	STATE	Y	Y 27+	Y
2	Conservation of Wildlife	EF, AGRI RD	Y	Y	P	STATE	Y	Y 27	Y
3	Conservation of Biological Diversity	EF, AGRI, BIO	P	P	P	CENTRE/STATE	P	Y 26+	Y
4	Prevention and control of:								
	4.1 Floods	EF, WR, AGRI, RD	P	N	P	STATE	P	Y 4	N
	4.2 Droughts	EF, WR, AGRI, RD	P	N	P	STATE	P	Y 4	N
	4.3 Desertification	EF, WR, AGRI, RD	P	P	P	STATE	P	Y 3	N
	4.4 Erosion	EF, WR, AGRI, RD	P	P	P	STATE	P	Y 3	N
	4.5 Pollution							Y 39+	
	a. Air	EF, POW, IND, STRA	Y	Y	P	CENTRE/STATE	Y	Y 2+	Y
	b. Water	EF, IND, UD, AGRI	Y	Y	P	CENTRE/STATE	Y	Y 4+	Y
	c. Land	EF, MINE, POW, IND	N	P	P	CENTRE/STATE	N	P 0+	N
	d. Noise	EF, IND, STRA, CIV, UD, RAIL	N	P	N	CENTRE/STATE	P	P 1+	P

* The number of times a task is mentioned in the policy documents studied. A + sign indicates that additional entries are there in policies and conventions exclusively addressing the task.

**

AE	ATOMIC ENERGY	FIN	MINISTRY OF FINANCE	PC	PLANNING COMMISSION
AGRI	MINISTRY OF AGRICULTURE	HEA	MINISTRY OF HEALTH	PET	MINISTRY OF PETROLEUM
CIV	CIVIL AVIATION TOURISM	HOME	MINISTRY OF HOME AFFAIRS	POW	MINISTRY OF POWER
COM	MINISTRY OF COMMERCE	HRD	MINISTRY OF HUMAN RESOURCE DEVELOPMENT	RAIL	MINISTRY OF RAILWAYS
DOBIO	DEPARTMENT OF BIODIVERSITY	I&B	MINISTRY OF INFORMATION AND BROADCASTING	RD	MINISTRY OF RURAL DEVELOPMENT
DOD	DEPARTMENT OF OCEAN DEVELOPMENT	IND	MINISTRY OF INDUSTRIES (Also includes industrial units of other Ministries)	S&T	MINISTRY OF SCIENCE AND TECHNOLOGY
DOP	DEPARTMENT OF PERSONNEL	LAB	MINISTRY OF LABOUR	STRA	MINISTRY OF SURFACE TRANSPORT
EA	MINISTRY OF EXTERNAL AFFAIRS	MIN	MINISTRY OF MINES	SW	MINISTRY OF SOCIAL WELFARE
EF	MINISTRY OF ENVIRONMENT AND FORESTS	OTHR	OTHER MINISTRIES	UD	MINISTRY OF URBAN DEVELOPMENT
FER	FERTILIZERS & CHEMICALS			WR	MINISTRY OF WATER RESOURCES

*** Y = Yes, P = Partial, N = No, Blanks = not applicable

TASKS	MIN/DEPT	CENTRAL GOVERNMENT				IMPLEMENTATION	LAWS	POLICY THRUST	STATE GOVERNMENT
		MOEF	OTHER	E&F SCHEMES					
		SCHEMES	STRUCTURES		SCHEMES				
		1	2	3	4	5	6	7	8
<hr/>									
5	Conservation and regeneration of ecologically sensitive areas, especially								
5.1	Wetlands	EF, WR AGRI	P	P	P	STATE	N	Y 6	P
5.2	Mangroves	EF	P	P		STATE	N	N 0	N
5.3	Coral Reefs	EF, DOD	P	P	P	CENTRE/STATE	N	N 0	N
5.4	Coastal Regions	EF, AGRI, DOD, WR	N	P	P	STATE	P	Y 7	P
5.5	Rangelands	EF, AGRI, RD	N	N	P	STATE	N	Y 9	N
5.6	Islands							P 1	
	a. Andaman & Nicobar	EF, PC OTHR	N	N	P	STATE	N	N 0	P
	b. Lakshadweep	EF, PC OTHR	N	N	P	STATE	N	N 0	P
5.7	Mountain ranges, especially							Y 6	
	a. Himalayas	EF, OTHR	N	N	P	STATE	N	N 0	P
	b. Western Ghats	EF, OTHR	N	N	P	STATE	N	N 0	P
	c. Eastern Ghats	EF, OTHR	N	N	N	STATE	N	N 0	P
	d. Aravallis	EF, OTHR	N	N	N	STATE	P	N 0	P
5.8	Tribal areas	EF, HOME RD, SW, AGRI	P	N	P	STATE	Y	Y 9	Y
5.9	Watersheds	EF, AGRI, WR, RD	N	P	P	STATE	N	Y 5	P
6	Protection of areas with special environmental problems:								
6.1	Harbours and shipping lanes	EF, STRA, DOD	N	N	N	CENTRE/STATE	N	N 0	N
6.2	Irrigation command areas	EF, WR, AGRI, RD	N	P	P	STATE	N	Y 4	N
6.3	Urban areas	EF, UD	N	P	P	STATE	P	P 9	P
6.4	Mining and oil extraction areas	EF, MIN PET	N	P	P	CENTRE/STATE	N	Y 13	P
6.5	Industrial belts	EF, IND	N	P	N	CENTRE/STATE	N	Y 16	P

TASKS	MIN/DEPT	CENTRAL GOVERNMENT				POLICY THRUST	STATE GOVERNMENT		
		MOEF	OTHER	IMPLEMENTATION LAWS	E&F SCHEMES				
		SCHEMES	STRUCTURES				SCHEMES		
		1	2	3	4	5	6	7	8
7	Protection of the Ozone Layer	EF, IND, COM	N	P	N	CENTRE/STATE	N	P 1	N
8	Protection of the Climate	EF, POW, AGRI, IND	N	P	N	CENTRE/STATE	N	Y 2+	N
9	Conservation and management of resources, especially								
9.1	Water	EF, UD, IND, POW, AGRI, NR	N	P	P	CENTRE/STATE	N	Y 19	N
9.2	Energy	EF, POW, IND, STRA, UD	N	P	P	CENTRE/STATE	N	Y 17	N
9.3	Biomass	EF, AGRI, RD	P	P	P	CENTRE/STATE	P	Y 6	P
9.4	Land and soil	EF, AGRI RD, MIN	P	P	P	STATE	N	Y 48	P
9.5	Minerals	EF, MIN, IND	N	P	N	CENTRE/STATE	N	Y 3	N
10	Protection from hazards, especially from							Y 9	
10.1	Occupational health hazards	EF, LAB, IND, MIN, AGRI	N	N	P	CENTRE/STATE	P	P 1	N
10.2	Chemical hazards	EF, IND, FER	P	P	N	CENTRE/STATE	P	P 1	P
10.3	Nuclear hazards	EF, AE	N	N	P	CENTRE	P	N 0	
11	Protection of diverse and traditional ecological cultures and systems of knowledge	EF, HPD, SW	N	N	P	CENTRE/STATE	N	Y 16	N
12	Protection of Animal Rights	EF, AGRI	Y	P	N	STATE	Y	N 0	N

STRATEGIES	CENTRAL GOVERNMENT						STATE GOVERNMENT	
	MIN/DEPT	MOEF	OTHER		IMPLEMENTATION	LAWS	POLICY	E&F SCHEMES
		SCHEMES	STRUCTURES	SCHEMES			THRUST	
	1	2	3	4	5	6	7	8
13 Legal	EF	Y	P		CENTRE/STATE		Y 13	P
14 Regulatory, especially through:								
14.1 Environmental impact Assessment	EF, OTHR	P	P	N	CENTRE/STATE	N	Y 31	P
14.2 Zonation	EF, IND, POW, UD, MIN	N	P	N	CENTRE/STATE	P	Y 33	N
14.3 Standards	EF	P	P	N	CENTRE/STATE	P	Y 23	N
15 Fiscal and Economic	EF, FIN, PC	P	P	N	CENTRE/STATE	N	Y 48	N
16 Planning and Integration	EF, PC	P	P	P	CENTRE/STATE	N	Y 142	N
17 Ecodevelopment and Joint Forest Management	EF, RD, AGRI	Y	Y	N	STATE	N	Y 14	P
18 Technological and managerial interventions, especially for:								
18.1 Efficient use of resources	EF, IND, POW, UD, AGRI, WR	N	P	P	CENTRE/STATE	N	Y 33	N
18.2 Enhanced productivity of biomass	EF, RD AGRI	P	P	N	STATE		Y 4	P
18.3 Recycling of resources	EF, IND POW, UD AGRI, WR	N	P	P	CENTRE/STATE	N	Y 17	N
18.4 Use of alternatives	EF, OTHR	N	P	P	CENTRE/STATE	N	Y 26	N
19 Research and Development	EF, OTHR	P	P	P	CENTRE/STATE		Y 60	P
20 Monitoring	EF, OTHR	P	P	P	CENTRE/STATE	N	Y 26	P
21 People's Participation	EF	P	P		CENTRE/STATE	N	Y 39	P
22 Training	EF, DOP IND, WR POW, MIN UD	P	P	P	CENTRE/STATE		Y 17	P
23 Education and Awareness	EF, WRD, I&B	P	Y	P	CENTRE/STATE	N	Y 43	P
24 International Cooperation	EF, EA	P	P	N	CENTRE		Y 39	

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III MAJOR ISSUES

Of the many issues thrown up by this assessment of institutional structures for the environment, perhaps three can be identified as being the most critical. These are:

1. Integration of environmental concerns in different sectors and levels,
2. Participation of people in the protection and regeneration of, and access to, the environment,
3. Investment of adequate financial resources in conserving and regenerating nature and natural resources.

1. Integrated Planning

Environmental planning needs to be done meaningfully in the Planning Commission, by integrating environmental concerns into plans of other sectors, and of the States. However, the Planning Commission has to be strengthened to play this role. Though an environment and forest division was set up in 1990, it has not had the clear mandate or the ability to integrate environmental concerns into the planning process, specifically in the sectoral plans of the Central and State Governments.

The sectoral chapters of the plan document are supposed to exemplify sectorally, and in greater detail, the broad thrust contained in the approach or thrust paper. This exemplification is supposed to be reflected in the schemes, programmes and projects approved and supported by the Planning Commission, and in the financial allocations made for each of them.

However, the lack of integration and the inability to clearly identify the interfaces between different sectors, manifest in the thrust document, is aggravated in the sectoral chapters which are even more stratified than the thrust or approach paper. These chapters mainly seek to further sectoral goals, primarily seen as quantitative growth targets.

At the next level, the schemes and programmes of the Central Ministry and the States bear even less resemblance to the overall thrust or approach and even to the chapters.

This is partly because whereas the plan is formulated by the Planning Commission, the programmes, schemes and projects are formulated by Ministries and Departments in the Central and State Governments. Though there is some discussion with central ministries in the process of plan formulation, there is none with the State Governments. Infact, apart from the Chief Ministers being involved, as members of the National Development Council, in approving the approach or thrust paper and the plan document, the State Governments seem to play a relatively small part in the overall planning for the country.

Perhaps the most important reason why schemes, programmes and projects do not always reflect the current plan philosophy is because a very large proportion of them are ongoing or half finished. The planning process might very well be a five - yearly process but it does not reflect the life of projects or schemes and, consequently, at the time when a new five - year plan is being formulated, or financed, a very large proportion of the funds available are already earmarked for ongoing or unfinished activities.

At the implementation stage, there is very little that the Planning Commission has been able to do to ensure the proper implementation of these plans, whatever their inadequacies. Past experience has shown that State Governments and even Central Ministries implement the plans according to their own priorities, both in terms of the strategies followed and even in terms of expenditure incurred.

Whereas the Planning Commission is involved in the process of approving schemes, programmes and projects at their inception, this is done on the basis of a proposal. When these same schemes, programmes or projects are initiated, they need yearly financial outlays from the Planning Commission. However, at this stage the Commission has very little ability to assess their functioning and has to go by the reports, often very scanty, presented by those implementing these schemes and projects.

Even in terms of financial outlays, there is a tendency, especially among State Governments, to follow their own priorities rather than the allocations made by the Commission. There is, again, little the Commission can do to prevent this. Some sectors, like agriculture, are "earmarked" sectors implying that if States transfer funds out of this sector's allocation to other sectors, without clearing it from the Planning Commission, the amount so transferred would be cut from their next year's central assistance. The "central assistance" comprises of the State's share and other dispensation from the revenue collected by the Central Government. However, even for earmarked sectors it becomes politically difficult for the Commission to ensure that they are respected.

The inability to develop and implement an integrated plan which clearly lists priorities and identifies the interface between different sectors and sectoral interests has a negative impact on many aspects of development but, most significantly, on the environment. Essentially "sustainable" development implies integration of environmental concerns into all sectors of development. Clearly this is not happening adequately in India.

The inability to implement strictly even the stratified sectoral plans also has serious implications on the environment. Where States or Ministries are allowed a free hand, they often favour the hard core "development" sectors like industry, irrigation, communication, tourism and mining, all too often at the cost of "soft" and "anti development" sectors like the environment.

The Planning Commission, and the integrated planning model that it represents, has lost influence for perhaps the following reasons.

a) Whereas in its initial years the Commission was able to develop integrated plans, the emergence of diverse and new issues relevant to development (like the need for environmental protection) heightened the

conflict between different sectors of development. Rather than face and resolve these contradictions through the medium of planning, the planning process was allowed to disintegrate and become pre-occupied with producing a series of sectoral and sub-sectoral plans which were, often, at variance with each other.

b) The resolution of conflicting demands, especially for natural resources, needs a basic, long term plan, prioritising different uses in a rational manner. Without this, planning becomes ad hoc and irrational. It often leads to lower priority demands getting satisfied while higher priority ones are refused. But, despite this, the planning process has not succeeded in formulating such basic plans for many crucial areas of conflicting demands. The lack of a land use plan is one such example, even though the Government of India had set up a high powered Land Use Board, way back in 1985, under the Chairmanship of the Deputy Chairman of the Planning Commission.

c) Apart from being sectoral and sub-sectoral, such planning also remains essentially centralised in a nation so diverse that centralised fiat have little relevance.

d) The irrelevance of centralised planning is aggravated when it has to be performed in the absence of detailed and authentic information of a disaggregated nature, as is the case for at least environmental planning.

Some of the other factors of concern to planners are listed below.

- As there is little evidence of the plans being actually integrated, especially in terms of environmental protection and sustainability, environmental concerns continue to be viewed as constraints to growth, very much like financial procedures, but with much less acceptability.

- Basic data required to adequately assess the impact of development policies and specific projects are often not available.
- There is a shortage of institutions and personnel who can carry out adequate environmental impact studies or advise on how to manage the environment better.
- Technological solutions to environmental problems, especially for older industries and projects, are often not there or not accessible.
- There is a hesitancy in incurring financial costs or delays for the sake of protecting the environment.
- The involvement of local communities and non-governmental organisations in planning, implementing and monitoring an environmentally sustainable model of development is poor.
- There is little co-ordination between different sectors and agencies involved in social and economic development, in order to ensure the integration of environmental concerns and safeguards.
- The concern for the environment seems greater in the Central Government, especially within the Ministry of Environment and Forests, than in the State Governments. The weakest link in the system remains planning.

2. People's Participation

It has taken forty years of experience to learn that the natural environment cannot be protected by Government alone, often because it has to be protected from governmental activities themselves. Besides, environmental reality in India is too varied to lend itself to generalised policies, or to centralised fiats, however well meaning. But, despite this, governmental and other formal institutional structures, including those at local levels, are often without the will

and ability to evolve a consensus of opinion, with the people, on the use and protection of natural resources.

They instruct, order, consult, even evoke participation, but are not able to sit with the people and agree on an optimal solution or strategy, based on the understanding, knowledge and experience of all the participants. Efforts are made to "convince" people, to "educate" them, but rarely to listen to them. It is this lack of a national dialogue and consensus that has reinforced patterns of centralised control on the environment and the consequent alienation of local communities from their natural surrounds. It has, in many parts of the country, transformed traditional social process into a war of attrition which benefits no one, least of all nature.

It is, therefore, imperative that control over their local natural surrounds and resources be progressively transferred to the people, especially to women, who have increasingly proved themselves to be better guardians of nature than men, and more willing to resist the temptations of short term economic gains at the cost of long term environmental and socio-economic sustainability.

To make it possible for the people to responsibly exercise this control, it is important that conditions be created where their own social and institutional structures can grow stronger. The people must also have access to information, and to professional knowledge, and must be able to call upon technical bodies for advice and support. However, at the same time, they must not be forced to act upon other peoples expertise or "wisdom", but be left free to choose their own path of action.

The Government must support such a simultaneous process of empowerment and back up services for the people, and be willing and able to intervene when called upon, or when mutually agreed norms are being violated. The responsibility, therefore, becomes a shared one, where local control rests with local communities : to be exercised within

conventions and norms evolved by the people, in consultation with the Government. The Government helps and supports this process in whatever way it is called upon to do so, but can only intervene on its own if the agreed upon conventions and norms are violated.

Such a system is absolutely essential in the case of tribals and other traditional communities who are totally dependent on their natural surrounds. The traditional wisdom and lifestyles of such communities must be respected and any changes affecting them must be planned and implemented after consulting them.

3. Adequate Financial Resources

Total direct investment of the Government in protecting and regenerating forests and the environment has been around 1% of the plan allocation. In the 8th Plan it is 1.13%.

The total forestry outlay for the 8th plan is Rs. 4081.87 crores, which is 0.94% of the total plan outlay. This, despite the fact that about a fourth of the land area of India is forest land, much of which is degraded and threatened, needing regeneration and protection.

One significant impact of this inadequate level of funding seems to be the inability to reforest the very large areas of wastelands and degraded forests, calculated to be over 100 million hectares, in India. Though some amount of funding has flowed into the country, through donor agencies, for forestry projects, this has not been adequate. Also, in many cases this has not resulted in a net benefit to the forestry sector as State budgets have accommodated this external aid by diverting their own resources out of forestry and to some other sector. Donor funding, which was in the past mainly for social forestry, also resulted in the neglect of other aspects of forestry, especially protection of natural forests and wildlife.

The second significant impact of this paucity of resources is the very inadequate environmental protection and regeneration activities in the States. The total 8th Plan allocation for ecology and environment, to the States, is Rs. 155.28 crores, which is 0.09% of the total allocation for States. Interestingly, this has not moved from the 7th Plan, when also it was 0.09% (See Annexure V).

Looking at the annual plan for 1991-92, a comparison of other sectors shows that against the 0.09% allocation for environment, agriculture had 7.07% (seventy eight times the environment budget), irrigation had 15.56% (hundred and seventy three times), rural development had 6.11% (sixty eight times), energy had 27.33% (three hundred and four times), industry and minerals had 5.27 (fifty nine

times), and transport had 8.35% (ninety three times). For details see annexure VI.

A look at the State annual plans for the three years 1990-91, 91-92 and 92-93 shows that the percentage allocation remained 0.09% for all three years (See Annexure VII).

An analysis of the 1987-88 data (the latest available) for the 15 most industrialised States show that the Plan allocations for environment, for these States, were 0.01% of the value of industrial output and 0.03% of the value of the output of polluting industries (Annexures VIII).

Given below (table 2, 3, 4 and 5) is the relative percentage of 7th and 8th Plan allocations for environment, for different States and in 1992-93. It is interesting to note that in 1992-93 and in the 8th Plan, seven of the 15 highly industrialised States (marked by *) had allocations below the national average. Also given below is the per-capita allocation for environment in 1992-93. Here, also, eight of the 15 industrialised States are below the national average.

RANKING TABLES OF STATES AND UNION TERRITORIES
FOR ALLOCATIONS ON ENVIRONMENT

TABLE 2

PERCENTAGE ALLOCATIONS ON
ENVIRONMENT IN 7th PLAN

*Madhya Pradesh	0.49
Sikkim	0.24
Tripura	0.17
*Kerala	0.17
Assam	0.11
Andhra Pradesh	0.10
<u>All India</u>	<u>0.09</u>
Manipur	0.08
Jammu and Kashmir	0.08
*#Goa	0.08
*Uttar Pradesh	0.07
*Tamil Nadu	0.07
*Orissa	0.07
Delhi	0.06
Mizoram	0.06
Meghalaya	0.06
*Haryana	0.05
*Rajasthan	0.05
*West Bengal	0.05
*Punjab	0.04
Pondicherry	0.04
*Karnataka	0.03
*Gujarat	0.03
Himachal Pradesh	0.03
*Bihar	0.02
*Maharashtra	0.02
Arunachal Pradesh	0.02
Andaman & Nicobar	0.01
Lakshadweep	0.00
Nagaland	0.00
Dadra & Nagar Haveli	0.00
Chandigarh	0.00

TABLE 3

PERCENTAGE ALLOCATIONS ON
ENVIRONMENT, IN 8th PLAN

Daman & Diu	0.69
Chandigarh	0.36
Lakshadweep	0.33
Sikkim	0.27
*Madhya Pradesh	0.22
Jammu and Kashmir	0.22
*Tamil Nadu	0.20
Meghalaya	0.15
*Kerala	0.13
Dadra & Nagar Haveli	0.13
*Goa	0.13
*Haryana	0.11
Tripura	0.11
*Rajasthan	0.11
Manipur	0.10
Assam	0.09
<u>All India</u>	<u>0.09</u>
*West Bengal	0.08
*Gujarat	0.08
*Uttar Pradesh	0.07
*Orissa	0.07
*Punjab	0.07
Himachal Pradesh	0.07
*Bihar	0.05
Nagaland	0.05
Delhi	0.05
Andaman & Nicobar	0.04
Mizoram	0.03
Arunachal Pradesh	0.02
*Andhra Pradesh	0.02
Pondicherry	0.02
*Karnataka	0.02
*Maharashtra	0.01

- * Indicates industrialised states, listed in annexure - VIII
Includes allocations for Daman and Diu

TABLE 4

PERCENTAGE ALLOCATIONS ON
ENVIRONMENT IN 1992-93

*Madhya Pradesh	0.35
Lakshadweep	0.33
Sikkim	0.27
Jammu and Kashmir	0.22
Meghalaya	0.21
*Kerala	0.16
*Rajasthan	0.14
*Goa	0.13
Manipur	0.12
Chandigarh	0.11
Assam	0.10
*Haryana	0.10
*Gujarat	0.10
<u>All India</u>	<u>0.09</u>
Tripura	0.09
*Punjab	0.08
Himachal Pradesh	0.08
*Orissa	0.07
*West Bengal	0.07
Daman & Diu	0.07
*Bihar	0.05
*Andhra Pradesh	0.05
Uttar Pradesh	0.04
Delhi	0.03
Nagaland	0.03
Andaman & Nicobar	0.03
*Karnataka	0.03
Mizoram	0.03
Pondicherry	0.02
Arunachal Pradesh	0.02
*Maharashtra	0.02
*Tamil Nadu	0.01
Dadra & Nagar Haveli	0.00

TABLE 5

PER CAPITA ALLOCATIONS ON
ENVIRONMENT IN 1992-93
(In Rupees)

Lakshadweep	15.24
Sikkim	7.10
Meghalaya	2.71
Jammu and Kashmir	2.21
Andaman & Nicobar	1.72
*Goa	1.63
Manipur	1.31
*Madhya Pradesh	1.22
Chandigarh	1.15
Daman & Diu	0.94
Tripura	0.87
Mizoram	0.70
Himachal Pradesh	0.69
*Punjab	0.57
Arunachal Pradesh	0.56
*Haryana	0.49
*Kerala	0.48
Nagaland	0.47
*Rajasthan	0.44
Assam	0.43
*Gujarat	0.42
<u>All India</u>	<u>0.32</u>
*Orissa	0.32
Delhi	0.31
Pondicherry	0.24
*West Bengal	0.15
*Karnataka	0.13
*Bihar	0.12
*Uttar Pradesh	0.12
*Andhra Pradesh	0.11
*Maharashtra	0.07
*Tamil Nadu	0.04
Dadra & Nagar Haveli	0.00

* Indicates industrialised states, listed in annexure - VIII

IV RECOMMENDATIONS

1. Summary of Recommendations

	Resources required for five years	
	Rupees (In crores)	US \$ (millions) (Approximate)
1. To set up a Planning network co-ordinated by the Ministry of Environment and Forests	32.5	11
2. To set up an ecological regeneration bank	1200	400
3. To set up institutional structures for Environmental Research	100	35
4. To initiate and sustain a process of decentralised planning	100	35
5. To set up a network of NGOs and other community (educational and cultural) institutions to monitor the environment and act in its conservation.	50	17.5
6. To strengthen Departments of Environment in the States.	937.5	315
7. To strengthen the environmental impact assessment (EIA) capabilities in the country.	150	50
8. To make Institutional arrangements aimed at objectively and scientifically monitoring the survival, health, and socio-economic and ecological benefits of tree plantations.	25	8.5
9. To set up an environment protection force, which can be deployed to protect forests, parks and other ecological valuable areas from organised poaching and destruction.	70	25
Total	2665	797

2. Detailed Recommendations

1. To set up a planning network, to be co-ordinated by the Ministry of Environment and Forests, that would assist other Central Ministries, State Governments and the Planning Commission in integrating environmental concerns into plans, schemes and policies of various sectors at the central and state level. This network would also coordinate the task of formulating environmentally sustainable strategies of development for various sectors, and assist in preparing the annual natural resources budget stipulated under the national conservation strategy.

Existing institutions and expertise within and outside the Government would be networked and co-ordinated for the purpose.

Budget

Cost of co-ordination	Rs. 2.5 crores
Support to institutions and for research studies	Rs. 30 crores
Total	Rs. 32.5 crores or approximately US \$ 11 million.

Agencies: **Ministry of Environment and Forests (MOEF)**, Planning Commission (PC), Ministry of Science & Technology (MOS&T), Ministry of Human Resources and Development (MOHRD)

Note: Agency in bold is the primary agency.

2. To set up an ecological regeneration bank with the multiple purpose of helping regenerate wastelands and other degraded ecosystems while providing sustainable and low cost employment to the rural poor and an enhanced supply of biomass to the nation.

The government has an obligation to provide "employment opportunities" to the citizens of India. From the various strategies available to the government, it is clear that employment related to regeneration and restoration of ecosystems, especially if those employed are tribals and economically weak segments of the society, would be among the most advantageous both in terms of costs and from the

viewpoint of social justice and sustainability. The same applies to generating employment opportunities to those displaced and rendered homeless and jobless as a result of large development projects. If millions of jobs are to be provided in the construction sector, it would involve huge financial investments, diversion of scarce raw materials, and transportation of materials over long distances. Similarly, jobs in the industrial sector would involve all these, along with requirements of energy and markets. In the agricultural sector, adequate cultivable land would be hard to come by, and there would also be a continuously escalating requirement for various inputs like fertilisers, pesticides, and irrigation. All these could also be environmentally damaging. Better, that existing agricultural lands are made more productive, through ecological regeneration, and soil and water conserved and replenished, otherwise even the current agricultural production would be threatened.

The creation of jobs, for ecological restoration, has relatively few requirements and great returns. There exist huge areas of degraded land (between 60 and 100 million hectares) which could be made available for regeneration and restoration. Apart from wages, little other input is required, especially if the activities are organised at local levels by the local communities themselves.

Much of this land needs basic water and soil conservation measures, some amount of plantation work, and protection. Very soon this land would start producing fuel, fodder and raw materials for village consumption in a sustainable manner. This would not only meet the basic needs of local communities, but allow them to sell the surplus, thereby earning money for themselves and ensuring availability of biomass to the nation. By protecting, regenerating and restoring degraded land, the pressure on the remaining land, forests and pastures could also be reduced to within sustainable levels. Similar activities could be designed to restore, in an integrated manner, other natural

areas.

Of course, if local communities are to restore and regenerate degraded ecosystems like land and forests, they must be allowed adequate access to these ecosystems. They must also have a right to a just share of the produce of these rejuvenated ecosystems. It would, therefore, be necessary to involve state governments, especially state forest departments, in this effort and to change existing laws, to ensure for the people such access and rights.

Budget

Regenerating initially 1 million hectares through providing employment to 200,000 families for a period of eight years, at Rs. 6,000 per hectares plus an additional Rs. 30,000 per family for the entire period.

Rs. 1200 crores or approximately
US \$ 400 million.

Agencies: MOEF, Ministry of Finance (MOF), Ministry of Rural Development (MORD)

3. To set up institutional structures for Environmental Research which would network existing research capabilities within and outside the government, and financially support appropriate research activities and the enhancement of research capabilities.

There has been, for the last many years, a tendency of isolation and distancing of professional bodies from the people. As a result of this, the growing scientific understanding of nature and natural processes has not been a participatory process. This has resulted in at least two distinct epistemological cultures, one based on experience and historical understanding, and the other mainly on modern science and theoretical hypotheses. The synthesis, and consequent enrichment, of these two cultures has not been adequate, resulting in a breakdown of communication, even a mutual hostility, between scientists and professional environmental managers, on the one hand, and those communities who have been interacting and living with nature for centuries, on the other.

It is, therefore, important to link research and education with grassroots reality and imbibe it with social and moral values. It is not enough to do research in libraries and laboratories. The tradition of action research, of discovering by doing, must be strengthened. The common forms of dissemination, through the printed word or through showing films and giving lectures, are not enough. Much greater learning is gained through actually observing, on the ground, the results of applied research and of social movements.

Research areas must be selected with care, so that effort and resources are not wasted in studying peripheral issues while important questions remain unresolved. Research should be related to specific social, managerial and scientific issues relevant to solving problems on the ground. A proportion of available research funds should be earmarked for supporting short-term, small, research projects aimed at solving local level problems. A decentralised mechanism needs to be set up (along the lines of the National Environmental Awareness Campaign) to select and fund such projects.

Budget

Building up of research networks and institutional structures for five years	Rs. 25 crores
Support for long term research projects	Rs. 50 crores
Support for localised, short-term research projects	Rs. 25 crores
Total	Rs. 100 crores or approximately US \$ 35 million

Agencies: MOEF, MOS&T, MOHRD

4. To initiate and sustain a process of decentralised planning at the village, district, state, and regional level.

Most centralised institutions have progressively grown insensitive to nature, and see it primarily as a resource for exploitation. It is often assumed that the common person is not sufficiently concerned and informed about nature and natural processes,

to make responsible decisions. The common person, especially the villager or tribal, is therefore consistently ignored in the decision making process for even those natural resources on which he or she is directly dependent. But the resultant centralised decisions have forced the villagers and tribals into impossible situations where, in order to survive, they have to surreptitiously degrade "government" forests and lands, thereby alienating themselves from nature, from the governmental machinery and, often, from each other.

Such an alienation is inevitable where an individual or community has been isolated from the environment, by acts of the government or other institutions enforcing exclusive control and right to manage. It is aggravated when individuals and communities are denied other ways of earning their livelihood, and forced to destroy their own environment. The alienation is complete when industrial and urban demands are allowed to destroy the environment which local communities, in the name of conservation, were not even allowed to use sustainably.

It is required to start the process of decentralised control by empowering community and non-governmental institutions to initiate decentralised, participatory, planning.

Budget

Support to NGOs and professional institutions to develop District Plans at Rs. 10 lakhs per district for 500 districts	Rs. 50 crores
Support to NGOs/community groups for building up village level plans, for a sample of 5000 villages at Rs. 1 lakh per village, over 5 years	Rs. 50 crores
Total	Rs. 100 crores or approximately US \$ 35 million

Agencies: MOEF, PC, State Governments, Panchayats

5. To support a network of NGOs and other community (educational and cultural) institutions to monitor the environment and act in its conservation.

It is important to set up a system by which important parameters of the natural environment are constantly monitored. This must be seen as an obligation that is fulfilled by the government through its institutions and departments, but one in which an active role is assigned to environment groups and activists and organisations of the people at large, carried out at both macro and decentralised levels.

The governmental machinery should be ready to act, where urgent preventive or remedial measures are required, and to ensure that all precautions are being taken to safeguard the environment.

It is recommended, therefore, to set up a comprehensive environmental monitoring network, that would have the responsibility of regularly monitoring the environment and presenting annual reports to the Parliament and the public, through the mass media and through dissemination to environmental NGOs. The funds for such a network can be channelised through an empowered committee, along the lines of the National Environmental Awareness Campaign.

Budget

Strengthening existing institutions and networking	Rs. 50 crores or approximately US \$ 17.5 million
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Agencies: MOEF, MOS&T, MORD, MOHRD

6. To strengthen Departments of Environment in the States.

There is a reluctance in most states to strengthen their departments of environment, despite the ever increasing role that such a department is being called upon to play. Many states also want the decentralisation of environmental powers from the Central Government to the States, but are unable to correspondingly strengthen their departments, due to a paucity of funds and human resources.

Often, even the outlays suggested in the annual and five year plans, for environment, by the Planning Commission are cut down and externally aided environment schemes, which are additionalities to the state budget, not shown as additionalities to the environment budget.

As the task of conserving the environment can be performed by the State Government far more effectively than by the Central Government, it seems important to strengthen State Departments through project funds which are genuine additionalities to the budget. The projects most appropriate to each state and part of a state can be formulated on the basis of the decentralised planning exercise recommended earlier. Such projects need not build up Governmental bureaucracies but can use existing research institutions and expertise to help in performing the various required functions.

Budget

Building up EIA capabilities at State level through a cell and networking of existing institutions, at an average of between Rs 1 crore per year and Rs 50 lakhs per year for the States, for five years, depending on their size and requirements.	Rs. 87.5 crores
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Strengthening Pollution control and monitoring structures, especially laboratories, monitoring stations and enforcement capabilities, in the highly industrialised States, at Rs 5 crores per State per year for five years.	Rs. 250 crores
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Strengthening conservation infrastructure, especially for conserving bio-diversity and ecologically sensitive areas on an average of between Rs. 5 crores per year and Rs 2 crores per year, per State.	Rs. 400 crores
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Setting up of planning cells within Departments of Environment and Forests, in the States, to network existing institutions, to co-ordinate with the proposed central network, and to thereby integrate environmental concerns into other sectors. Resources required at the rate of an average of Rs 1 crores per state per year.	Rs. 125 crores
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Setting up institutional structures to protect areas with special environmental problems, especially mining and industrial belts (for ten industrial and five mining belts) at Rs 1 crore per belt per year, for 5 years	Rs. 75 crores
Total	Rs. 937.5 crores or approximately US \$ 315 million

Agencies: PC, MOEF, State Governments

7. To strengthen the environmental impact assessment (EIA) capabilities in the country.

Till such time that environmental concerns have been fully integrated into all sectors and at all levels, and strategies for sustainable development have been formulated and adopted, EIA remains the most effective instrument for ensuring that development projects and activities are not environmentally destructive.

Apart from the fact that there is as yet no law in India making EIA a mandatory precondition to the approval of projects and activities, there are various other lacunae which need remedying.

There is a paucity of time scale data for most of the parameters that need to be considered for EIA. It is important to significantly strengthen existing institutions like the Central and State Pollution Control Boards, the Indian Meteorological Organisation, the Geological Survey of India, the Central Water Commission, the Land Use Board, etc. so that they can gather detailed authentic data on various aspects of the environment.

Another major constraint is the paucity of independent institutions to prepare environmental impact statements. As things stand, the project authorities sponsor institutions or consultants to prepare impact statements. As the project authority is footing the bill, and would make decisions about future assignments, the impartiality of the consulting institution or individual becomes suspect, and occasionally eroded. What is required is an independent fund controlled by a neutral organisation

(like the Finance Ministry or Planning Commission) which can be used to strengthen institutions of repute for preparing impact statements, so that the work can be done without depending on the project authorities for funds.

There is also a shortage of human resources in this sector and major efforts have to be made to train trainers and then to get them to train researchers, from diverse disciplines, in preparing impact statements and conducting assessments.

There is also a need to comprehensively zone the country in terms of environmental fragility and indicate what sorts of processes are acceptable in what locations. While setting up new projects or starting new activities, usually the critical factor from the environmental viewpoint is the location.

Such zoning should, wherever relevant, take into consideration other requirements and specify optimal locations for, for example, thermal power stations taking into consideration coal link, water availability, power demand areas and the relevant environmental parameters.

Budget

Strengthening existing scientific institutions for collecting baseline, timescale, data	Rs. 15 crores
Strengthening independent institutions for preparation of environmental impact statements and independent financing of EIA work	Rs. 100 crores
Training and human resources development	Rs. 10 crores
Generating data for creation of ecological zones	Rs. 25 crores
Total	Rs. 150 crores or approximately US \$ 50 million

Agencies: MOF, PC, MOEF, MOS&T, MOHRD

8. To make Institutional arrangements aimed at objectively and scientifically monitoring the survival, health, and socio-economic and ecological benefits of tree plantations.

At present there seems to exist a very inadequate system of monitoring forest plantations, especially in terms of the area actually planted and the survival rates, done under the social forestry and NWDB Programmes. Till the end of the 7th Plan, the figures given for area planted were actually based on a conversion of the number of saplings reportedly grown and distributed. This is obviously an unsatisfactory way of monitoring plantations.

Similarly, there has been very little effort at realistically evaluating forest plantations done as a part of the compensatory afforestation activities of various projects. Though some information is available regarding the amount of compensatory afforestation that has been officially undertaken, the actual coverage and survival rate is mostly not known.

There is also little public confidence in the statistics routinely given out by the government. In fact, an impression is growing that very few of the millions of trees reportedly planted actually survive, or are even planted.

Social forestry plantation schemes can be broadly divided into two categories:

1. Block plantations, mostly undertaken by the State Government, where the plantation sites vary in size from a few hectares to many thousand hectares. This accounts for about 50% of the plantations.

2. Those which involve distribution of seedlings to farmers and other persons for disaggregated planting around their homes and agricultural fields. Such plantations are very rarely consolidated into one plot. About 50% of the plantation work is done in this manner.

The plantations being done as part of the compensatory afforestation programmes are invariably in consolidated blocks, as per the requirements of the Government, and as such are akin to the first

category.

Bulk plantations can be effectively monitored with the help of remote sensing and aerial photography, given detailed information, on toposheets, of the boundaries of the plantations, the year of plantations, the number of plants per hectare, and the species.

Based on this information, the Forest Survey of India, various state remote sensing organisations and the natural resources monitoring system of the Department of Science and Technology could be involved in doing a sample study, using remote sensing imagery and aerial photography, to monitor the progress of such plantations.

These plantations would begin to show up after the first year through aerial photographs and after three years through remote sensing. Based on this, a realistic assessment of the area covered and the survival rates could be made.

Plantation and survival rates for saplings that have been distributed individually and are not a part of block plantations, needs a different methodology. In case these saplings are of fuelwood and fodder species, it would not be difficult to work out a model by which the success of the programme can be measured by assessing the availability and price of fuelwood and fodder in the areas where such saplings have been distributed.

Concurrently, a network of non-governmental organisations and institutions needs to be built up to assist in the task of monitoring both the quantitative and qualitative aspects of tree plantations.

Such institutional arrangements would primarily seek to develop abilities in independent scientific institutions to take up the required monitoring activities. These institutions would be supported by a network of NGOs and community groups who would supplement remote sensing and aerial photography data with local, physical, verification.

Budget

Strengthening of 15 institutions, including provision of hardware, software, and training, (@ Rs. 1 crore per institution)	Rs. 15 crores
Support to 50 NGOs and community groups at Rs. 40 lakhs per group (basic equipment, vehicle, training)	Rs. 10 crores
Total	Rs. 25 crores or approximately US \$ 8.5 million

Agencies: MOEF, MOS&T, Dept. of Space (MORA)

9. To set up an environment protection force, which can be deployed to protect forests, parks and other ecological valuable areas from organised poaching and destruction. This force should be trained to investigate environmental crimes and take over the responsibility of enforcing laws against "white collar" criminals.

Whereas ecodevelopment and joint forest management are recognisably the best strategies for minimising the degradation and destruction of forests and other natural ecosystems by local community pressures, more and more of our wilderness areas are being threatened by organised poachers (for sandalwood in Karnataka, Rhino horns in Assam, tiger bones in many of the Project Tiger areas, etc.). Also, in some parts of the country, forests and other natural ecosystems are becoming targets of militants (for example Manas in Assam, Indravati and Kanha in Madhya Pradesh, and Peechavaram in Tamil Nadu).

By and large foresters, and forest guards, are neither trained nor equipped to handle such situations. Besides, as such emergencies are only sporadic occurrences, it might not be desirable or economical to train and equip all the foresters and forest guards across the country, for such eventualities.

However, when they do occur, they often threaten to destroy, forever, some of the most valuable ecosystems. Therefore, it is

necessary to set up such a protection force, appropriately equipped and trained, which can be deployed at short notice, wherever required. This force could also handle, on a regular basis, the task of gathering intelligence regarding trade in wildlife and biological resources: an area which needs to be significantly strengthened.

Budget

Recruitment and training of ten "groups" of 250 men and women each along with a co-ordinating cell	Rs. 5 crores
Equipment for the ten groups	Rs. 15 crores
Maintenance for five years	Rs. 50 crores
Total	Rs. 70 crores or approximately US \$ 25 million

Agencies: MOEF, Ministry of Health (MOH)

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Annexure I

SCHEMES OF THE MINISTRY OF ENVIRONMENT AND FORESTS

FORESTRY SCHEMES

Grant-in-aid to Indian Council of Forestry Research and Education (and its constituent institution) (Central): Increasing the area under forests in the country, improving the production of biomass and meeting the fuel wood and timber requirement of the country.

Constituent institutions

Forestry Research Institute, Dehra Dun (Central): The primary aim of reorganisation of the Institute will be to carry out research on ecology, regeneration, tending and management of forests occurring in the Himalayan and alluvial regions. It will also carry out national level research on forest inventory methods, watershed management socio-legal aspects of forestry, forestry operations concerned with nursery, planting tending, harvesting and transport, forest fires and nutrient budgeting.

Institute of Wood Science & Technology at Bangalore (Central): The primary objectives of establishment of the Institute will be to carry out research on all aspects utilisation of forest products particularly physical and chemical properties of wood and other tree products with a view to determine their specific uses, physical and chemical processing of wood to obtain sawn or reconstituted products, seasoning, preservation, finishing, and substitution of wood by alternative materials.

Institute of Forest Genetics at Coimbatore (Central): The primary objectives of the Institute will be to carry out research with a view to identify and evolve varieties of species used in afforestation and social forestry that will contribute to the national goal of achieving a growth of 3 to 4 cubic meters per year per hectares within the ecological considerations applicable to the area. The institute will, therefore, utilise the knowledge already available to achieve this end, and where such knowledge is lacking, it will conduct research to gain the knowledge so that requisite technology can be evolved for application by forest departments of the States and other tree planting agencies.

Institute of Deciduous Forests at Jabalpur (Central): The primary aim of establishment of Institute will be to carry out national level research on forest protection and minor forest produce. Research on regeneration, tending and management of *Shorea robusta* *Tectona grandis*, *Dendrocalamus strictus* and their associate species commonly occurring in the Region will also be the responsibility of the Institute. It will also conduct research on impact of multi-purpose water storage projects resettlement of displaced persons, tribal-forests relationship, plantation on mined over areas, tree borne oil seeds, gums, and tendu leaves.

Institute of Rain Forest at Jorhat (Central): The primary aim of establishment of the Institute will be carry out research on ecology, regeneration, tending and management of forests occurring in the North Eastern States, West Bengal, Sikkim and Andaman and Nicobar Islands. Conservation methods to preserve the unique heritage, containment of shifting cultivation and multi-faceted use of mangroves without damage to the ecological character will be priority areas for research.

Institute of Arid Zone Forestry Research at Jodhpur (Central): The primary aim of establishment of the Institute will be to carry out research on regeneration tending and management of forests occurring in the States of Gujarat and Rajasthan and neighbouring areas. The role of trees in support of agriculture and fodder production, preventing spread of deserts, improvement in soil moisture regime, development of multi-purpose trees, and improvement of micro-climate, will be priority areas of research.

Forestry Education (Central): The objectives are:-

1. To provide education in forestry at the University level in both under-graduate and post-graduate levels.
2. To enable those interested in forestry to study forestry at University and take up as a subject in competitive examinations for employment.

State Forest Service Training Colleges and Rangers' Colleges (Central): To train State Forest Officers in 3 SFS Colleges, one each at Dehradun, Coimbatore and Burnihat.

Training of IFS Officers (Central): One Week Training Programme for IFS Officers in various State/Central Institutions in the country, is being conducted since 1985. The main objectives of the training is to sensitise the participants to issues of national concern and to train the officers to look at various issues in an integrated manner.

Indira Gandhi National Forests Academy (Central): To train Indian Forest Service Probationers.

Forest Survey of India (FSI) Including Application of Remote Sensing techniques (Central): The objectives are:-

1. To prepare a comprehensive state of the forest report once in every two years, and thematic maps once in ten years.
2. To design methodologies for vegetation mapping including thematic mapping through use of satellite imageries/aerial photographs, ground verification and growing stock and volume assessment.
3. To prepare forest inventory in selected states.
4. To impart training in modern forest survey techniques to foresters.

Strengthening of Forest Division (Central): The objectives are:-

- 1) To monitor and evaluate all ongoing forestry development projects and schemes with specific emphasis on conservation of forests.
- 2) To assist the States and Union Territories in preparation of the proposals involving diversion of forest lands for non-forestry purposes under the provisions of the Forest (Conservation) Act, 1980 for expeditious processing and disposal of such cases.
- 3) To undertake physical inspection of sites in cases of diversion of forests involving an area of more than 40 ha.
- 4) To monitor the implementation of conditions and safeguards stipulated by the Central Government in regard to diversions approved under the Forest (Conservation) Act, 1980.
- 5) To assist the States and Union Territories in the preparation of management plans for working of forests under their control within the framework of guidelines issued by the Central Government from time to time.
- 6) To assist the States and Union Territories in streamlining collection, collation, storage and retrieval of data covering all the facets of forests and forestry activities and to transmit such data to the Central Government/Central Data, Processing Centre.

Indian Institute of Forest Management (Central): To impart training for forest management and related subjects for forestry and non-forestry personnel.

Introduction of Modern Forest Fire Control Methods (Centrally Sponsored Scheme (50:50)): The objectives are:-

- a) To ensure protection from fire of both natural and man-made forest resources.
- b) To devise, test and demonstrate, principles and techniques of prevention, detection and suppression of forest fires, to determine the technical, socio-economic and financial feasibility of the application of modern forest fire fighting techniques in India, institute effective fire statistical reporting and fire danger rating systems, to strengthen the fire prevention, detection and suppression capability, to strengthen professional education in forest fire fighting, organise and promote cooperative fire prevention programme etc.

Beneficiary Oriented Scheme For Tribal Development (Centrally Sponsored Scheme (100%)): The objectives are:-

1. Rehabilitation of Tribal and other families affected under relocation plans of Project Tiger, National Parks and Wildlife sanctuaries.
2. Rehabilitation of people practising shifting cultivation by motivating them for pursuing permanent cultivation with proper land use practices.
3. To bring the land so released under proper land use, preferably under tree cover.
4. Provision of basic amenities in the forest villages according to the minimum need programme, creation/improvement of infrastructure.

Development of Infrastructure for Forest Protection (Centrally Sponsored Scheme (50/50)): The objective is to provide protection measures against illicit felling, grazing, and encroachment etc.

National Forestry Action Programme (Centrally Sponsored Scheme): Preparing National Forestry Action Plan on the framework adopted for the Tropical Forestry Action Plan. A long term forestry plan for the country will not only solve the problem of deforestation in a systematic way but will also provide a basis for determining investment priorities and will facilitate the cooperation and involvement of most of the multilateral and bilateral donor agencies. The scheme aims at reviewing the forestry sector in the country to assess the potentials and constraints in the development of the sector and to identify the priorities in the development of the sector and to identify the priorities for investment.

Grant to Indian Plywood Industrial Research Institute (Central): To conduct applied research for development of plywood and other allied industries.

Association of Scheduled Tribes and Rural Poor in Regeneration on Degraded Forests. (Centrally Sponsored Scheme - 100%): This scheme has been launched during 1992-93 to associate Scheduled Tribes and rural poor in afforestation of degraded forest area with the aim of improving biomass resource base in degraded forests. This will provide gainful employment and the resource so generated will serve as an economic base for the Scheduled Tribes and other rural poor by sharing of usufructs.

WILDLIFE SCHEMES

Strengthening of Wildlife Division and Consultancies For Special Tasks (Central): The objectives are:-

1. To provide adequate staff for control of poaching and illegal trade in wildlife products at the Government of India level.
2. To conduct studies on wildlife management with the help of consultants.
3. To enable proper monitoring of utilisation of financial assistance under centrally sponsored schemes.

National Zoological Park (Central): The objectives of the scheme are :

1. To conserve and breed rare and endangered animals
2. To conduct research regarding their behaviour, reproduction and nutrition
3. To educate and entertain the people about preservation of wildlife
4. To provide assistance and guidance to other zoos of the country.

Grant-in-aid to Wildlife Institute of India (Central): The objectives are:-

- a) Training managers and biologists for protected area management and wildlife research.
- b) Training education and extension specialists for protected areas to gain public support for wildlife conservation.
- c) Providing orientation courses for those involved in land use management.
- d) Conducting and coordinating applied wildlife research and evolving relevant techniques suited to Indian conditions.
- e) Creating database for building up a wildlife information system employing modern analytical techniques and computer equipment; and
- f) Providing advisory and consultancy services to Central and State Governments, universities, research institutions and other official and non-official agencies.

Development of National Parks and Sanctuaries (Centrally Sponsored Scheme (100%nr/50%r)): This scheme is a merger of two different schemes, one for national parks and one for sanctuaries. The objectives of this combined scheme are :

1. Conservation of fauna and flora of selected national parks and sanctuaries.
2. Reduction of interface conflict between wild animals and human beings.
3. Education of visitors about importance of wildlife conservation.

Control of Poaching & Illegal Trade in Wildlife (Centrally Sponsored Scheme (100%nr/50%r)): the objective is to assist the State in setting up Organisations/mechanisms to enforce protective measures against poaching and illegal trade in wildlife and their products.

Project Tiger (Centrally Sponsored Scheme (100%nr/50%r)):

The objectives of the Scheme are :

- 1) To ensure the maintenance of a viable population of the tiger in India for scientific, economic, aesthetic, cultural and ecological values.
- 2) To preserve, for all times, areas of such biological importance as a national heritage for the benefit, education and enjoyment of the people.

Conservation of Rhinos in Assam (Centrally Sponsored Scheme (100%)): The objectives are:-

- a) Protection of Rhino population and its habitat.
- b) Reduce interface conflict between Rhino and human beings.

Grant-in-aid to Animal Welfare Board of India (Central): The objectives are:-

- a) To implement the Prevention of Cruelty to Animals Act.
- b) Provision of training to the representatives of SPCA's in various aspects of animal welfare, harmless transportation of animals, first aid method, animal requirement regarding feed, exercise, management and handling of animals and medico-legal matters related to cases covered under the Prevention of Cruelty to Animal Act, 1960.
- c) Research programmes for improvement of vehicles and devices drawn by animals, so that the draught animals may be spared avoidable strain.
- d) Socio-economic study and creation of data-base : The main objective of this activity will be to collect data about different category of animals in the country. The economic inputs and contribution made by the animals to GNP, contribution made by the animals in nature conservation and conservation of conventional

sources of energy.

- e) Publicity and awareness about compassionate behaviour towards animals programme including organising workshops and convention.

Eco-Development Programme Around Sanctuaries and National Parks including Tiger Reserves (Centrally Sponsored Scheme): To enable State Governments, especially wildlife authorities to assist in the Socio-economic development of areas and National Parks and Sanctuaries. This is to ensure that populations living in and around protected areas are not negatively affected because of the setting up of such areas.

Management Planning for Protected Areas (Centrally Sponsored Scheme) : To implement a systematic and scientific conservation programme after drawing up of the appropriate management plans for each protected area depending upon its significance.

Project Elephant (Centrally Sponsored (100% non-recurring/50%recurring)): the objectives are:-

- a) To ensure long term survival of identified viable populations of Elephants.
- b) To tackle the problematic elephant populations that are causing serious depredation in different areas.

Central Zoo Authority (Central): The objectives are:-

- 1) To oversee the management of Zoos in India.
- 2) To enforce certain minimum standards of upkeep and to de-recognise such zoos which fail to meet these standards.
- 3) To assist in the development of zoos.
- 4) To co-ordinate training programmes.
- 5) To co-ordinate captive breeding programmes.

Strengthening Management Planning Capabilities (Central)

- 1) To assist the states in the preparation of scientific management plans for the protected areas as well as the areas selected for ecodevelopment.
- 2) To develop and demonstrate alternative rural strategies through ecodevelopment.
- 3) To train the wildlife managers in the preparation of management plans for protected areas and ecodevelopment.
- 4) To develop protected area monitoring capability within the state wildlife agencies and enable increased use of national wildlife database facility.

ENVIRONMENT SCHEMES

Grant-in-aid to Central Pollution Control Board (CPCB) (Central):

The main objectives of the Board are :

- 1) To act as regulatory agency for the prevention and control of water pollution and Air Pollution
- 2) To implement the Prevention & Control of Air & Water Pollution Act and the Environment Protection Act
- 3) To supervise the work of the State Boards.

Environmental Impact Assessment (EIA) (Central): To appraise development projects having significant impact on the environment and to suggest measures for the protection of the environment.

Botanical Survey of India (Central):

The objectives of the BSI are categorised into primary objectives and secondary objectives:

Primary Objectives

- 1) To survey the entire plant resources of the country.
- 2) To undertake and complete taxonomic studies of all the flora of the country.
- 3) To list all endangered species, to undertake measures for their effective conservation and to collect and maintain germplasm and gene bank of endangered, threatened and vulnerable species.
- 4) To bring out volumes of National Flora and Flora of State/Union Territories.
- 5) To identify, collect and preserve specimens of plants which are economically and otherwise beneficial to human beings.
- 6) To prepare National Data Base on herbarium collection including types, live collection, plant genetical resources, plant distribution and nomenclature.

Secondary Objective

- 1) To undertake studies on selected critical and fragile eco systems.
- 2) To undertake assessment of floras relating to environmental impact studies as may be specifically called for.
- 3) To undertake ethno-botanical studies and evaluate plants of economic utility in areas specified by the Ministry.
- 4) To carry out geo-botanical studies in areas specified by the Ministry.

Zoological Survey of India (Central): The objectives are:-

- 1) Exploration and survey of faunal resources of the country.
- 2) Taxonomic studies of the material collected during faunistic survey.
- 3) Inventorisation of endangered species of fauna in the country.
- 4) Maintenance and development of National Zoological collection.
- 5) Publication of Fauna of India and Departmental Journals.

National Natural Resources Management System (NNRMS) (Central): To build up detailed maps and reports based on the remote sensing data, for the natural resources of specific regions.

Biosphere Reserves (Centrally Sponsored (100%)): To assist the State Governments in setting up Biosphere reserves.

Conservation and Management of Mangroves (Centrally Sponsored (100%)): This scheme proposes to assist state governments to protect and regenerate the mangroves and coral reefs in their states.

Conservation and Management of Wetlands (Centrally Sponsored (100%)): This scheme proposes to assist state governments to protect and regenerate the wetlands in their states.

Ecological Task Forces (Central): The scheme of Eco-Task Forces of ex-servicemen is a joint venture of the Ministry of Environment & Forests, Ministry of Defence and the concerned State Govt. (where it is deployed/intended to be deployed) to undertake ecological restoration work in selected environmentally degraded areas.

Field Demonstration Project (Central): To demonstrate technologies for restoration of selected degraded areas and integrated ecological development. The salient features include extensive and intensive plantation to augment the green cover in the area, biological and engineering measures for control of soil erosion, creation of network of nurseries and seed banks, reclamation of wetlands, water resource development, land slide control, promotion of non-conventional energy sources, improving sanitation and hygiene etc.

Govind Ballabh Pant Himalayan Paryavaran Evam Vikas Sansthan (Himalayan Institute) (Central): The objectives are:-

- 1) To undertake in-depth research and development studies on environmental problems of Himalayan region and Shiwalik ranges.
- 2) To evolve and demonstrate suitable technology packages and delivery systems for integrated development of the Himalayan and the Shiwalik ranges.

- 3) To co-operate with educational and other institutional organizations in any part of the world having objectives wholly or partly similar to those of the Institute.

Centres of Excellence (Central): This scheme seeks to set up centres of indepth research, development and training in core areas of environment.

Research & Development (Central): To promote research in multi-disciplinary aspects in identified thrust areas. This is done in collaboration with institutes, universities and non-governmental organisations throughout the country.

Environmental Education, Awareness, and Training (Central): The objective of this scheme is to create total environmental awareness as well as to extend techniques and methods of environment education to almost all age groups of the country's population through exhibitions, camps, training programmes, seminars, workshops, rallies, padayatras performing arts, TV and Radio Programmes and various other non formal education methods.

Seminars/Symposia/Workshops (Central): Under this scheme, financial assistance is provided to various Non-Governmental organisations, Educational institutions, Professional bodies, Registered Societies for holding Seminars/Symposia/Workshops on environmental related topics of current scientific interest, so as to provide a common platform for sharing knowledge and experience among Scientists/Environmentalists from various disciplines.

Pitamber Pant Fellowship (Central): To encourage and recognise excellence under research related to environmental science.

National Museum of Natural History (Central): To develop the museum in the capital and to achieve the highest level of quality to promoting environmental education and develop education programmes at formal and informal levels.

Grants in-aid to Professional Societies (Central): Under this scheme, assistance is provided to Professional Societies and appropriate institutions, museums and science centres for developing activities and projects in the field of environment as well as to develop exhibition galleries and educational programmes relevant to ecology, wildlife and environment.

Environmental Information System (ENVIS) (Central): The programme is aimed at building up a national information network for various environmental aspects to be made available to a wide variety of users in the country, and function as the Indian counterpart of INFOTERRA.

Environmental Policy & Law, including EPA (Central): The objectives are:-

- 1) To assist to state department of environment.
- 2) To assist state pollution control boards.
- 3) To assist environmental laboratories other than state board laboratories.

- 4) To prepare standards.
- 5) Management and control of hazardous substances.
- 6) To support the Environment Protection Authority.

International Cooperation (Central): The objectives are:-

- 1) To cooperate bilaterally with various countries on environmental programmes, prominent among these countries are, USA, USSR, FRG, the Netherlands and Norway.
- 2) To function as nodal agency in the country for United Nations' Environment Programme (UNEP). South-East Asia Cooperation Environmental Programme (SACEP) and International Union for conservation of Nature and Natural Resources (IUCN).

Civil Engineering Wing (Central): To take up civil works for the Ministry of Environment & Forests.

Adoption of clean technologies by small scale industries (Central): To provide assistance for small scale industries especially in rural area for treatment of effluents and solid wastes and to extend necessary technical assistance.

Promotion of Construction of Common Effluent Treatment Plants (CETP) for clusters of small scale industrial units (Centrally Sponsored (50:50)): To encourage use of new technologies for Common Effluent Treatment Plants (CETP) for existing clusters of Small Scale Industries.

National River Action Plan (Centrally Sponsored (50:50)): The objectives are:-

- 1) To conduct and collect studies on the water quality of rivers.
- 2) To provide expertise for project formulation, appraisal and monitoring, and to restore the water quality of rivers.
- 3) To promote use of statutory powers by various agencies to ensure that industries do not contribute pollutants to the rivers.
- 4) To promote formulation and implementation of plans to protect the watersheds of rivers.
- 5) To decide on the water flows in rivers so as to subserve the requirements of the quality of the river water for various purpose.
- 6) To promote measures to tackle non-point pollution from fertilizers and pesticides.
- 7) To promote the establishment of information banks of technologies for treating the municipal and industrial waters.

World Bank aided Pollution Control Project (Centrally Sponsored): The objectives are:-

- 1) Strengthening Pollution Control Boards.
- 2) Establishment of common effluents treatment plants (CETPS) for clustures of small industries.
- 3) Financing pollution control in eight identified industrial sectors.
- 4) Technical assistance to industries for pollution control.

Paryavaran Sudhar Pariyojana (Centrally Sponsored): To serve the twin purpose of providing gainful employment to the unemployed youth and to rehabilitate and improve the productivity of degraded lands of various kinds.

Environmental Audit (Central) Environmental audit as a procedure for an environmental statement will serve as a management tool to make industrial concerns and local bodies feel that they have a responsibility for abatement of pollution. The audit will help to identity focus attention on areas of concern so that steps could be taken to minimise the adverse effects caused by pollution.

Environmental Statistics & Mapping (Central) The scheme aims to collect and integrate environmental economic and health data for monitoring the effects of pollution and to prepare an environmental atlas reflecting the trend in pollution level.

Assistance to Botanic Gardens and centres for conservation and propagation of endemic, rare and endangered plants (Central) To augment the activities of Botanic Gardens and Field centres in different parts of the country for conservation of biodiversity and propagation of plant genetic resources.

Biological Diversity Conservation (Central) To co-ordinate, review and monitor programmes for the conservation of biological diversity conducted by different organisations in the country.

Integrated Action Oriented Research Demonstration and Extension Project for Himalayan Region (Central) To promote research and evolve technology packages location specific environmental problems in the Himalayan region.

Assistance for Abatement of Pollution (Centrally Sponsored) To implement the action points of the Policy Statement for Abatement of Pollution grants will be made available to State Pollution Control Boards, State Environmental institutes and Research Institutions to strengthen their technical capabilities.

Environmental Commission and Tribunal (Central) The scheme envisages codification in development of principles of civil liability for damages arising out of handling hazardous substances and set up tribunals to effectively dispose of such cases seeking restitution and relief compensation.

Hazardous Substances Management (Central) To provide assistance to Department of Environment/State Pollution Control Boards for strengthening Hazardous substances management structure and to set up Emergency Response Centres.

Ganga Action Plan Phase -I (Centrally Sponsored) To prevent pollution and restore the purity of river water.

Ganga Action Plan Phase - II (Centrally Sponsored) Under this scheme the activities of GAP Phase I will be extended to the tributaries of Ganga viz. Yamuna, Gomti and Damodar.

NATIONAL AFFORESTATION AND ECODEVELOPMENT BOARD

Grant-in-aid to Voluntary Agencies (Central): To promote, encourage and finance development of wastelands through active involvement of NGOs and Voluntary Agencies. This Central sector scheme was initiated to give effect to this aim. The main activities of this scheme are:

- 1) Activities include nursery raising, plantation, awareness raising, training and extension. All activities to aim at increasing peoples participation in Social Forestry/Wastelands Development Programmes.

Decentralised Nurseries (Central): The scheme aims at decentralisation of seedling production by providing self employment opportunities in rural areas. The main components of the scheme are :

- 1) Decentralisation of seedling production through raising of nurseries by people themselves.
- 2) Making seedlings of desired species locally available.
- 3) Generation employment and additional source of income to rural poor.

Scheme of Aerial Seeding (Centrally Sponsored (100%)): The objectives are:-

- 1) To study the effectiveness of the aerial seeding techniques of afforestation and revegetation for regenerating difficult and inaccessible areas.
- 2) To standardise and upgrade the various operations involved in aerial seeding.

Seed Development Agencies (Centrally Sponsored (100%)): To create infrastructure for tree seeds including technology for quality control in seed godowns training in the standards of certification. The main activities of this scheme are:

- 1) Identification and improvement of phenologically superior seed stands and carrying out improvement operations.
- 2) Collection of quality seeds from seed stands, processing, testing, certification, storage and distribution of quality forest seeds.
- 3) Seed production of pasture grasses and legumes
- 4) Establishment of seed processing and grading facilities.

Integrated Wasteland Development Scheme (Centrally Sponsored (100%)): To take up projects all over the country ensuring integrated approach to land management and watershed development. The main components of this scheme are :

- 1) Preparation of integrated wastelands development plans at the micro-level on watershed basis.
- 2) Conservation of selected ecologically fragile areas.
- 3) Extension of technologies for special problem lands like alkaline/saline; arid, mined areas etc.
- 4) Regeneration of degraded forest areas including through natural regeneration.
- 5) Improvement of pasture conditions in the alpine pastures.

The basic objective of the scheme is to enable the start of pilot projects at the field level in the states aimed at integrated approach to land management related to wastelands development, based on village/micro-watershed level plans prepared after taking into account land capability, site conditions, and local needs, and thus promote optimal land use for both ecological and socio-economic needs. It is also the objective of the scheme to create such planning capability at the appropriate levels and to promote a planning approach to the work that is planned for. The scheme also aims at enhancing the content of public participation in the wastelands development programme through mechanisms for people's involvement at all stages and by providing the modalities for equitable and sustainable sharing of benefits arising from such projects.

Scheme for Fuelwood and Fodder Projects: (50% Centrally Sponsored) The main objective of the scheme is to promote integrated development of identified watersheds by combining activities like tree planting, agroforestry, silvipasture development, horticulture, and soil and moisture conservation with a view to:

1. Checking land degradation and regeneration of degraded lands/wastelands
2. Augmenting production of fuelwood, fodder, and forest produce especially from community and degraded forest lands and also take steps to promote fuelwood conservation and substitution
3. Involve the village community/local people in the programme

Scheme of the Conservation of Minor Forest Produce Including Medicinal Plants : (100% Centrally Sponsored) The main objectives are as follows:

1. Conservation and improvement of the minor forest produce, including medicinal plants, through effective protection and appropriate silvicultural practices
2. Increasing the production of and replenishing the minor forest produce and the medicinal plants, especially for meeting the needs of the rural people
3. To provide employment and income to the tribals and others living in and around the forests.

Scheme for Development of Forest and Pasture Seeds : (100% Centrally Sponsored) The objective of the Scheme is to equip the state forest departments adequately so that they can produce, process, certify and handle selected forest species and pasture grass/legume seeds particularly for meeting its own afforestation and pasture development programmes and also to attain surplus production so that other states could also be supplied with these seeds.

The scheme therefore, has the longterm objective of developing the necessary programme of seed production in the country for meeting the growing demand for quality seeds of forest species as well as pasture seeds. The short term or immediate objective is to support the ongoing efforts of the states and help build up the required infrastructure for seed processing, testing, certification and storage, etc. including support for supply of necessary equipments.

Grants-in-aid Scheme (100% Central Sector) Grants-in-aid under the scheme are available to registered voluntary agencies, cooperatives, Mahila Mandals, and Yuva Mandals and other similar organisations for undertaking work directly or indirectly connected with afforestation and wastelands development.

Annexure II

A SELECT LIST OF CENTRAL AND CENTRALLY SPONSORED SCHEMES OF VARIOUS SECTORS WITH RELEVANCE TO THE ENVIRONMENT

1. **CONSERVATION AND REGENERATION OF FORESTS (1)**
 - 1.1 Coordinated Project on Agro-forestry Ministry of Agriculture
 - 1.2 National Wastelands Development Programme Ministry of Rural Development
 - 1.3 Control of Shifting Cultivation Ministry of Agriculture
2. **CONSERVATION OF WILDLIFE (2)**
 - 2.1 Systematic Control of Livestock Diseases of National Importance Ministry of Agriculture
 - 2.2 Indian Veterinary Council Ministry of Agriculture
 - 2.3 Foot & Mouth Diseases Control Programme Ministry of Agriculture
 - 2.4 Rinderpest Eradication Ministry of Agriculture
 - 2.5 Systematic Control of Livestock Diseases of National Importance Including Creation of Disease Free Zone Ministry of Agriculture
 - 2.6 Animal Disease Surveillance Ministry of Agriculture
 - 2.7 Epidemiological Studies on Foot and Mouth Diseases Ministry of Agriculture
 - 2.8 Economic Ornithology Ministry of Agriculture
3. **CONSERVATION OF BIOLOGICAL DIVERSITY (3)**
 - 3.1 Development of Indigenous Breeds of Cattle and Buffaloes Ministry of Agriculture
 - 3.2 Micronutrients of Soil and Plants Ministry of Agriculture
 - 3.3 Biological Control Ministry of Agriculture
 - 3.4 Medicinal and Aromatic Plants Ministry of Agriculture
 - 3.5 National Seed Project Ministry of Agriculture
 - 3.6 Tissue Culture Ministry of Agriculture

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| 3.7 | Human Engineering and Safety Studies in Agriculture | Ministry of Agriculture |
| 3.8 | Bureau of Plant Genetic Resources | Ministry of Agriculture |
| 3.9 | Bureau of Animal Genetic Resources | Ministry of Agriculture |
| 3.10 | Bureau of Fish Genetic Resources | Ministry of Agriculture |
| 3.11 | Various Schemes on Bio-technology | Department of Biotechnology |
| 4. | PREVENTION AND CONTROL OF FLOODS (4.1) | |
| 4.1 | Flood Proofing Measures in North Bihar | Ministry of Water Resources |
| 4.2 | Flood Control in Brahmaputra Valley | Ministry of Water Resources |
| 4.3 | Flood Control Works in Brahmaputra Valley | Ministry of Water Resources |
| 4.4 | Integrated Watershed Management in the Catchments of Flood Prone Rivers | Ministry of Agriculture |
| 4.5 | Flood Control in Orissa | Ministry of Water Resources |
| 5. | PREVENTION AND CONTROL OF DROUGHTS (4.2) | |
| 5.1 | Drought Prone Area Programme | Ministry of Rural Development |
| 6. | PREVENTION AND CONTROL OF DESERTIFICATION (4.3) | |
| 6.1 | Desert Development Programme | Ministry of Rural Development |
| 7. | PREVENTION AND CONTROL OF EROSION (4.4) | |
| 7.1 | Development and Stabilisation of Ravinous Areas | Ministry of Agriculture |
| 7.2 | Reclamation of Ravinous Areas | Ministry of Agriculture |
| 8. | PREVENTION AND CONTROL OF POLLUTION (4.5) | |
| 8.1 | Pollution Control | Ministry of Power |
| 8.2 | Pollution Control Project (Bihar) | Ministry of Petroleum |
| 8.3 | Sewage Water Treatment Facilities (Tamil Nadu) | Ministry of Petroleum |

8.4	Improvement in Effluent Treatment Facilities	Ministry of Petroleum
8.5	Rural Sanitation Programme	Ministry of Rural Development
8.6	National Project on Demonstration and Use of Bio-fertiliser: Establishment of Sub-centre for Production and Multiplication of B.G.A.	Ministry of Agriculture
8.7	Urban Water Supply and Sanitation	Ministry of Urban Development
8.8	Urban Solid Waste Management	Ministry Urban Development
8.9	Urban Sewerage	Ministry of Urban Development
8.10	Environmental Schemes	Ministry of Petroleum
8.11	Research Project on Pesticide Residues	Ministry of Agriculture
8.12	Pilot Plant for Effluent Recycling (Tamil Nadu)	Ministry of Petroleum
8.13	Fly Ash Brick Plant at DTP (West Bengal)	Ministry of Power
8.14	Micro-biological Decomposition and Recycling of Farm and City Wastes	Ministry of Agriculture
8.15	Energy from Waste Recycling Systems	Department of Non-Conventional Energy Sources
9.	CONSERVATION AND REGENERATION OF WETLANDS (5.1)	
9.1	Development of Water Bodies	Ministry of Agriculture
10.	CONSERVATION AND REGENERATION OF CORAL REEFS (5.3) AND COASTAL REGIONS (5.4)	
10.1	Assistance for Anti-sea Erosion Works in States	Ministry of Water Resources
10.2	Marine Information Service	Department of Ocean Development
11.	CONSERVATION AND REGENERATION OF ISLANDS (5.6)	
11.1	Island Development Authority	Planning Commission
11.2	Island Development Programme	Department of Ocean Development

12. CONSERVATION AND REGENERATION OF MOUNTAIN RANGES (5.7)

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| 12.1 Hill Area Development Programme | Planning Commission |
| 12.2 Western Ghats Development Programme | Planning Commission |

13. CONSERVATION AND REGENERATION OF WATERSHEDS (5.9)

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| 13.1 Integrated Watershed Management in the Catchments of Flood Prone Rivers | Ministry of Agriculture |
| 13.2 Agricultural Drainage Aspect on Watershed Basis | Ministry of Agriculture |
| 13.3 National Watershed Development Programme | Ministry of Agriculture |
| 13.4 National Watershed Development Programme for Rainfed Agriculture | Ministry of Agriculture |
| 13.5 Soil Conservation in the Catchment of River Valley Projects | Ministry of Agriculture |
| 13.6 Catchment Treatment in River Valley Projects | Ministry of Agriculture |

14. PROTECTION OF IRRIGATION COMMAND AREAS (6.2)

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| 14.1 Command Area Development | Ministry of Water Resources |
| 14.2 On-Farm-Land Development in Command Areas | Ministry of Agriculture |

15. PROTECTION OF URBAN AREAS (6.3)

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| 15.1 Urban Water Supply and Sanitation | Ministry of Urban Development |
| 15.2 Urban Solid Waste Management | Ministry Urban Development |
| 15.3 Urban Sewerage | Ministry of Urban Development |

16. PROTECTION OF MINING AND OIL EXTRACTION AREAS (6.4)

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| 16.1 Pollution Control Project (Bihar) | Ministry of Petroleum |
| 16.2 Sewage Water Treatment Facilities (Tamil Nadu) | Ministry of Petroleum |
| 16.3 Improvement in Effluent Treatment Facilities | Ministry of Petroleum |
| 16.3 Environmental Schemes | Ministry of Petroleum |
| 16.4 Pilot Plant for Effluent Recycling (Tamil Nadu) | Ministry of Petroleum |

16.5 Pilot Plant for Effluent Recycling (Tamil Nadu)	Ministry of Petroleum
17. CONSERVATION AND MANAGEMENT OF ENERGY (9.2)	
17.1 Energy Conservation Schemes at Bombay (Maharashtra)	Ministry of Petroleum
17.2 Waste Heat Power Recovery Project (Offshore)	Ministry of Petroleum
17.3 Energy Conservation	Ministry of Power
17.4 Energy Conservation Project (Tamil Nadu)	Ministry of Petroleum
17.5 Solar Thermal Energy Programme	Department of Non-Conventional Energy Sources
17.6 National Programme on Improved Chulhas	Department of Non-Conventional Energy Sources
17.7 Institutional/Community Bio-gas Plant Programme	Department of Non-Conventional Energy Sources
17.8 Solar Photovoltaics Programme	Department of Non-Conventional Energy Sources
17.9 National Programme for Biogas Development	Department of Non-Conventional Energy Sources
17.10 Other Renewable Energy Resources Programme	Ministry of Agriculture
17.11 Biomass and Draught Animal Power Programme	Department of Non-Conventional Energy Sources
17.12 Micro Hydel	Department of Non-Conventional Energy Sources
17.13 Energy Audit and Demonstration Project	Department of Non-Conventional Energy Sources
17.14 Agricultural Pumpsets Rectification Project	Department of Non-Conventional Energy Sources
17.15 Energy Bus Programme	Department of Non-Conventional Energy Sources
17.16 Integrated Rural Energy Planning Programme	Planning Commission

17.17 Wind Pumping Extension	Department of Non-Conventional Energy Sources
17.18 Solar Energy Centre	Department of Non-Conventional Energy Sources
17.19 Wind Energy Programme	Department of Non-Conventional Energy Sources
17.20 Chemical Sources of Energy	Department of Non-Conventional Energy Sources
17.21 Ocean & Other Sources of Energy	Department of Non-Conventional Energy Sources
17.22 Biomass Programme	Department of Non-Conventional Energy Sources
17.23 Energy from Waste Recycling Systems	Department of Non-Conventional Energy Sources
18. CONSERVATION AND MANAGEMENT OF LAND AND SOIL (9.4)	
18.1 Treatment of Problem Soils/Degraded Areas	Ministry of Agriculture
18.2 Improvement of Diara Lands	Ministry of Agriculture
18.3 Disaster Preparedness Scheme	Ministry of Agriculture
18.4 Management of Salt-affected Soils and Use of Saline Water	Ministry of Agriculture
18.5 Management of Acid Soils	Ministry of Agriculture
18.6 Dryland Agriculture	Ministry of Agriculture
18.7 Improvement of Soil Physical Conditions to Increase Agricultural Production in Problematic Areas	Ministry of Agriculture
18.9 Reclamation of Alkali Soils	Ministry of Agriculture
18.10 Micronutrients of Soil and Plants	Ministry of Agriculture
18.11 Drought Prone Area Programme	Ministry of Rural Development
18.12 Desert Development Programme	Ministry of Rural Development

18.13	Development and Stabilisation of Ravinous Areas	Ministry of Agriculture
18.14	Reclamation of Ravinous Areas	Ministry of Agriculture
18.15	Soil Conservation in the Catchment of River Valley Projects	Ministry of Agriculture
19.	PROTECTION FROM OCCUPATIONAL HEALTH HAZARDS (10.1)	
19.1	Strengthening of Facilities and Services for Monitoring Work Environment in Hazardous Chemical Industries in States/UTs	Ministry of Labour
20.	RECYCLING OF RESOURCES (18.3)	
20.1	Pilot Plant for Effluent Recycling (Tamil Nadu)	Ministry of Petroleum
20.2	Fly Ash Brick Plant at DTP (West Bengal)	Ministry of Power
20.3	Micro-biological Decomposition and Recycling of Farm and City Wastes	Ministry of Agriculture
20.4	Energy from Waste Recycling Systems	Department of Non-Conventional Energy Sources
21.	USE OF ALTERNATIVES (18.4)	
21.1	Solar Energy Centre	Department of Non-Conventional Energy Sources
21.2	Wind Energy Programme	Department of Non-Conventional Energy Sources
21.3	Chemical Sources of Energy	Department of Non-Conventional Energy Sources
21.4	Ocean & Other Sources of Energy	Department of Non-Conventional Energy Sources
21.5	Biomass Programme	Department of Non-Conventional Energy Sources
21.6	Fly Ash Brick Plant at DTP (West Bengal)	Ministry of Power
22.	MONITORING (20)	
22.1	Water Quality Monitoring (Central Water Commission)	Ministry of Water Resources

23. EDUCATION AND AWARENESS (23)

23.1 Environmental Orientation to School
Children

Ministry of Human
Resources
Development

STATE FORESTRY SCHEMES

TYPE OF SCHEME	AP	ARU	ASS	BIH	GOA	GUJ	HAR	HP	J&K	KAR	KER	MP	MAH	MAN	MEG	MIZ	NAG	ORI	PUN	RAJ	SIK	TN	TRI	UP	WB	AND	PON	DEL
Afforestation and Regeneration	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Afforestation, and Regeneration of Degraded Forests	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	Y	Y	N
Extension Forestry	N	N	N	N	N	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Greening of Rural and Urban areas	N	N	N	N	N	Y	Y	N	Y	Y	N	N	Y	Y	N	Y	N	N	Y	Y	N	Y	Y	N	N	Y	Y	Y
Plantations	Y	N	N	Y	N	Y	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	N	Y	Y	N	N	N	N	N	N	N	N
Rubber Plantation	N	N	N	N	Y	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Urban Forestry	Y	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Afforestation of mined out areas	N	N	Y	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Aravalli Project	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
CLUMP	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Cashew Plantation	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
Economic Plantations: Regeneration of Chilgoza pines	N	N	N	N	Y	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Establishment of New Nursery	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Extension Forestry including Canal Plantation	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Forestry Development Project for Western Districts	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Inland Shelter Plantation	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Kailash Watershed Dev. (New Scheme)	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Raising of green Belt	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Regeneration of Sal and Oak Forests	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Regeneration of sal forest	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Rehabilitation of common lands in Aravallis	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Watershed Management	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Western Ghats Forestry and Environment Project	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Pulpwood	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
Sandalwood	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
Teak	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N

KEY:	Y	Signifies existence of a scheme for the state under whose code it occurs	
	N	Signifies non-existence of a scheme for the state under whose code it occurs	
AP	Andhra Pradesh	MEG	Meghalaya
ARU	Arunachal Pradesh	MIZ	Mizoram
ASS	Assam	NAG	Nagaland
BIH	Bihar	ORI	Orissa
GOA	Goa	PUN	Punjab
GUJ	Gujarat	RAJ	Rajasthan
HAR	Haryana	SIK	Sikkim
HP	Himachal Pradesh	TN	Tamil Nadu
J&K	Jammu and Kashmir	TRI	Tripura
KAR	Karnataka	UP	Uttar Pradesh
KER	Kerala	WB	West Bengal
MP	Madhya Pradesh	AN	Andaman and Nicobar Islands
MAH	Maharashtra	PON	Pondicherry
MAN	Manipur	DEL	Delhi

TYPE OF SCHEME	AP	ARU	ASS	BIM	GOA	GUJ	HAR	HP	J&K	KAR	KER	MP	MAH	KAN	MEG	MIZ	MAG	ORI	PUN	RAJ	SIX	TN	TGJ	UP	WB	ALH	POH	DEL
Social Forestry	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
NWOB programme	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N
Social Forestry	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CSS Silvopastoral scheme	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Creation of SF circle	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Distribution of seedlings	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Maharashtra Social Forestry	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Margin Money Assistance	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N
Social Forestry ECC	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Village Forest Committees	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Village woodlot	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Externally Aided Schemes	Y	N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	N	Y	N	Y	N	Y	Y	N	N	N
Bihar Social Forestry Project (SIDA)	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Externally Aided Projects	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Externally Aided SF project Phase II	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Forest Communication Project (Japanese aid)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Forestry Extension under USAID Project	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Indo German Ecodevelopment (Changer) Project	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Indo-German Dhauladhar Project	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Maharashtra SF Project (Externally Aided New)	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
National Social Forestry Project-WB USAID	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
ODA Aided Project (Beas and Sutlej Catchment)	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Social Forestry (WB/US Aid)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Social and Farm Forestry (Includes SIDA and other Externally Sponsored Schemes)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
WB Aided water shed (Khandi Area)	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
West Bengal Forestry Project (Externally aided)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
World Bank Aided Comprehensive State Forestry project	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
World Bank Aided Cyclone Reconstruction Project (Shelter Belt)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
World Bank Aided Social Forestry	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
World Food Programme	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
World Food Programme/Drinking Water electricity, facility to staff/labourers	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Fuel & Fodder	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N	N	Y	Y	N	Y	Y	Y	Y	Y	N	N
Fuelwood and Fodder Projects (CCS)	Y	Y	N	Y	N	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N	N	Y	Y	N	N	Y	Y	Y	Y	N	N
Development of Fodder	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Eco-Fuelwood	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Energy Plantation and fodder Development through Van Panchayat	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Establishment of fuel wood Depots	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Pasture Development	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wattle Fuel Trees	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

TYPE OF SCHEME	AP	ASU	ACS	ELN	AOA	GOJ	MAP	MP	JIK	KAP	KSP	MP	MAH	MAN	KSG	KIZ	MGB	ORJ	PUN	RAJ	SIX	IN	TPJ	UP	WB	ANM	PUN	DEL	
Protection and Conservation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Forest Conservation and Development	N	Y	N	Y	N	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	
Forest Protection	Y	N	Y	N	Y	N	N	Y	Y	Y	Y	Y	N	N	Y	N	N	N	Y	N	N	Y	Y	N	N	N	N	N	
Modern Forest Fire Control Methods	N	N	N	Y	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	
Protection of Forests from Elotic Interference and Diseases	Y	N	Y	Y	N	N	Y	Y	Y	Y	N	N	Y	Y	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	
Soil Conservation	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Cultural Operations/Tending/sap reg.	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Eco-Task Force	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Eco-restoration-Attapady (New Scheme)	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Improvement of natural forests	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Tending	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Management	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Logging, Extraction and Utilisation	N	Y	Y	N	Y	N	N	Y	N	N	N	N	N	Y	N	Y	Y	N	N	N	Y	Y	Y	N	N	Y	N	N	
Forest Produce	N	Y	Y	N	N	N	N	Y	N	N	N	N	N	Y	N	N	Y	N	N	N	Y	Y	N	N	N	N	N	N	
Logging	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	
Production Forestry	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Resource utilisation	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	
Public Sector Undertakings	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	Y	N	Y	N	N	Y	N	Y	N	N	Y	Y	N	N	N	N	
Assistance to Public Sector Undertakings	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	Y	N	Y	N	N	Y	N	N	N	N	Y	N	N	N	N	N	
Forest Oey. Corporation	N	Y	N	N	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	Y	Y	N	N	N	N	
Minor Forest Produce	Y	N	N	Y	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N
Development of MFP	N	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N
Bamboo Regeneration	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Development of MFP including Isar Host Plantation	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
MFP Plantation outside TSP areas	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Education, extention and training	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	
Education, Extension and Training	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	
Extension and Training	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Improvement in training School	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	
Training	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	
Research and Monitoring	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	Y	N	N	
Forestry Research	N	N	Y	N	Y	N	Y	Y	N	N	N	N	N	Y	N	N	N	N	Y	N	N	Y	N	N	N	N	Y	N	N
Monitoring and Evaluation	N	N	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	
Research	Y	N	N	Y	N	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N	N	Y	N	N	Y	N	N	N	N	
Statistics	N	N	N	N	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N
Ecomonitoring system and awareness	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Forest Research Institute	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Water Balance Study	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Publicity	Y	N	N	Y	Y	N	Y	N	N	N	Y	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Forest publicity	N	N	N	N	Y	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Publicity	Y	N	N	Y	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	

TYPE OF SCHEME	AP	ARU	ASS	BIH	GOA	GUJ	HAR	HP	J&K	KAR	KER	MP	MAH	MAN	MEG	MIZ	NAG	ORI	PUN	RAJ	SIX	TN	TRI	UP	WB	A&N	PON	DEL
Forest Survey, Demarcation and Planning	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	N	N
Consolidation and Demarcation of Forests	Y	Y	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N	Y	N	N
Forest Inventory	N	N	Y	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	N	N	N
Forest Resources survey	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N
Planning	N	N	N	Y	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Preparation and Revision of Working Plan	N	N	N	N	Y	N	Y	Y	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	Y	Y	N	Y	N	N
Survey, Demarcation, Settlement, and Utilisation of Forest Resources	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	N	N
Management Plan	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Project Formulation Cell	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Roads, Buildings, Management and Administration	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y
Amenities to Forest Staff and labour	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Communications and Buildings	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N
Direction and Administration	N	Y	N	Y	Y	Y	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	N	N	N
Intensification of Management	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	N	Y
Other Expenses	N	Y	Y	N	Y	Y	N	N	N	N	N	Y	N	Y	Y	Y	Y	N	N	N	N	N	Y	N	N	N	N	N
Culverts and Bridges	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Group Insurance of Forest Labourers	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Gutted building	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Housing Accomodation	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Inspection Path, Trails etc.	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
MFP Plantation outside ISP areas	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Salaries	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Gardens & Parks	N	Y	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N
Public Gardens, Parks	N	Y	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
Animal Parks	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wildlife Zoological Park/Public Garden	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
Miscellaneous	Y	N	Y	N	Y	Y	N	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	N	N	N
Special Component Plan	Y	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Tribal Area Sub Plan	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Bio-aesthetic measures	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Coal Subsidy	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Cold Desert	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Development of Trekking Routes	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Employment Generation to encourage non-conventional energy resources	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Hill area	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Implementation of State forestry Action Plan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Land Aquisition	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Mangrove	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
N.G. Org.	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
New Schemes	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Operation Cost	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Operation Water spred (New Scheme)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Quick growing soils	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
T.V. Booms	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N
Tribal Rehabilitation in Plantation and Primitive Group Programme	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

STATE WILDLIFE SCHEMES

TYPE OF SCHEME	AP	ARU	ASS	BIH	GOA	GUJ	HAR	HP	J&K	KAR	KER	MP	MAH	MAN	MEG	MIZ	NAG	ORI	PUN	RAJ	SIK	TN	TRIP	UP	WB	ANDH	POND	DEL
National Parks and Sanctuaries	N	N	Y	Y	N	N	N	Y	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Assistance for Development of National Parks	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Assistance for Development of Sanctuaries	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Balukiki National Park	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Corbett National Park and Tiger Reserve (50% CSS)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Dev. of Yangourouki Lokachao Sanctuary (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Development of Keibul National Park (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Development of Kushinagar/Sarnath Budha	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Development of Panigarh Lake	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Development of wetland Sanctuaries	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Oudhwa National Park (CSS)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Establishment of Great Himalayan National Park Kullu (WL)	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Establishment of New National Park (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Establishment of Pin Valley National Park (WL)	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Establishment of Rajaji National Park	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Improvement and Development of Wildlife Sanctuaries (WL)	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Intensive Management of Sanctuaries	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Kumarakom Bird Sanctuary (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
National Chambal Sanctuary (CSS)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
National Parks and sanctuaries (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Palamu Tiger Reserve	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Project Tiger (WL)	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Strengthening of Bird cum Wildlife Sanctuary (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sylhet Valley Fern Sanctuary (New Scheme) (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wildlife Management and Conservation	Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N	Y	N	N	Y	Y	Y	N
Conservation of Wildlife (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Other Expenditure (Wildlife management and Nature conservation) (WL)	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Preservation of Wildlife (WL)	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
Wildlife Conservation (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wildlife Management (WL)	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wildlife Preservation (WL)	N	Y	N	N	N	N	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	N	N	N	N	N	Y	N	N	Y	Y	N
Wildlife Protection Outside Sanctuaries	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wildlife and Environmental Conservation	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Control of Poaching	N	N	N	Y	N	N	N	Y	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Control of poaching and illegal trade in Wildlife (CSS) (WL)	N	N	N	Y	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Strengthening of W.P.C. of Poaching (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Captive Breeding and Conservation of Species	N	N	N	N	N	N	N	Y	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Assistance for Captive breeding (WL)	N	N	N	N	N	N	N	Y	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Rehabilitation of Gharial	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Rehabilitation of Turtle (CSS)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Snow Leopard Project	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N

TYPE OF SCHEME	AP	ARU	ASS	BIH	GOA	GUJ	HAR	HP	J&K	KAR	KER	MP	MIZ	MUN	MYS	NAG	ORIS	PUNJ	RAJ	SIK	TN	TRIP	UP	WB	ANDH	GOA	DEL
Zoos, Gardens, Parks and Safaris	Y	Y	Y	Y	N	N	N	Y	N	N	Y	N	N	Y	N	Y	Y	Y	N	N	Y	N	Y	N	N	N	N
Agasthyavana Biological Park (WL)	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Assistance for dev. of selected zoos (CSS) (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N
Dev. of Bot. Garden (WL)	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Development of Forest Parks	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Development of Zoos and Safari	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Establishment of Botanical Garden at Raj Bereilly	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Establishment of tiger Safari at Ludhiana (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Ranchi Zoological Park	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sanjay Gandhi Zoological Park	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Zoological Parks (WL)	Y	Y	Y	N	N	N	N	Y	N	N	N	N	N	N	N	Y	Y	N	N	N	Y	N	N	N	N	N	N
Biosphere Reserves	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Forests Biosphere Reserves (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Eco-development	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Eco-Development (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Education, Training and Awareness	N	N	N	N	N	N	N	Y	Y	N	Y	N	N	Y	N	N	N	Y	N	N	N	N	Y	N	N	N	N
Awareness for nature and WL conservation (WL)	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Education and Interpretation of Wildlife (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Forestry and Wildlife Training Institute (New Scheme) (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Nature club project (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Training of Wildlife Staff	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Trg./symposium/con. (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wildlife Week & publicity (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wildlife education and interpretation programme (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Research and Monitoring	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Research Survey and census (WL)	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Administration	N	N	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Strengthening of Wild. Section (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wildlife Wing (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wildlife preservation Division (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Compensation	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Assistance for crop/cattle damage (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Miscellaneous	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Afforestation in memory of National leaders (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Environmental Forestry and Wildlife (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Establishment of a separate cadre of watchers and guards of tribals (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Small and Big Game Resources (WL)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wetland Resources (WL)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

STATE ENVIRONMENT SCHEMES

SCHEMES AND PROGRAMMES	AP	ARU	ASS	BIH	COA	GUJ	HAR	HP	J&K	KAR	KER	MP	MW	MAH	MEG	MIZ	NAG	ORIS	PUNJ	RAJ	SIK	TN	TRE	UP	WB	AND	PON	DEL
POLLUTION (Prevention, Control, and Monitoring)	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Common Effluent Treatment Plants in Industrial Areas	Y	N	N	Y	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N
Control of Noise Pollution	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N
Control of Water Pollution	N	N	N	N	N	N	Y	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N
Ganga Action Plan	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N
Hazardous Waste Management	N	N	N	Y	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N
Monitoring Air Quality	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	Y	N	N	N
Monitoring Water Quality	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y
Pollution Control Board	Y	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	N	N	N	N	N	N	N	N
Pollution Control	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N
Prevention and Control of Air & Water Pollution	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	N	N	N	N
Strengthening of Labs. Under Pollution Control Boards	Y	N	N	Y	N	Y	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N
World Bank Aided Pollution Control Project	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N
Action Plan to Deal With Polluted Areas	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N
Cleaning up River Cauvery and Other Water Bodies	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N
Ganga Water Monitoring in Four Stations	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Krishna and Godavari River Cleaning Action Plan	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
National River Action Plan	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Pollution Disaster and Hazardous Management Cell	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sewerage Schemes in Old Industrial Areas	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Subsidies/Loans for Energy Conservation/ Pollution Control Devices	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Environmental Conservation and Regeneration	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	Y	Y	Y	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N	N
Conservation Programme	N	N	N	N	Y	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	Y	Y	N	N	Y	N	N	N	N
Ecodevelopment	N	N	Y	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N
Ecological Regeneration	N	N	N	N	Y	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
National/International Interaction on Environmental Issues	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N
Conservation of Natural Living Resources	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N
Environmental Projects	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Kolleru Lake Development	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Management of Natural Resources	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Protection, Preservation, and Improvement Scheme on Environment and Ecology	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Conservation of Biological Resources	N	N	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N
Development of Botanical Gardens/Environment Parks/ Water Bodies	N	N	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N
Establishment of Germ Plasma Bank	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N
Zoological Parks	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N

SCHEMES AND PROGRAMMES	AP	ARJ	ASS	BH	GOA	GUJ	HAR	HP	J&K	KAR	KER	MP	MAH	MAN	MEG	MIZ	NAG	ORI	PUN	RAJ	SIX	TN	TRI	UP	WB	ASN	PON	DEL
Environmental Education, Training and Awareness	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y
Environment Education Programmes	N	N	Y	Y	Y	Y	N	N	N	Y	Y	Y	N	Y	N	N	Y	Y	N	Y	Y	N	N	Y	N	N	Y	N
Environmental Awareness Programmes	Y	Y	Y	N	N	Y	N	Y	Y	N	N	N	N	Y	N	N	Y	N	Y	N	N	N	Y	Y	N	N	N	N
Training	N	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Centre for Environment Education and Training	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
Environmental Awards, Research & Fellowship and Scholarship	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N
Environmental Park cum Ecological Museum at Mourigram Howrah	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Establishment of Natural History Museums/Aquariums	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Workshop and Seminar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
Environmental Research and Monitoring	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	N	Y	N	Y	Y	N	Y	Y	N	Y	N	N	Y	N	N	N
Environmental Research Programmes	Y	Y	Y	N	N	Y	Y	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Preparation of a Status Report on Environment	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Remote Sensing	N	N	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Surveys and Investigation	Y	N	Y	N	N	N	N	Y	Y	Y	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
Bioresource Centre	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Catchment Area Studies of Major River Basins and Loktak Lake	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Coastal Monitoring Programme	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Documentation	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Environment Consultancy Cell	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Environmental Monitoring	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
Monitoring soil	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
Disaster Management	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
Disaster Management Institute	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Setting up Emergency Response Centre in Manali, Meltur, Ranspet, Tuticorin and Cuddalore	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
Administrative Structure	N	N	Y	Y	Y	N	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N	Y	N
Direction and Administration	N	N	Y	N	N	N	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
Environment and Ecology Cell	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	Y	Y	N	N	N	N	N	N	N	N
Strengthening Environment Division	N	N	Y	Y	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N
Activities of ELF Board	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Machinery/Equipment	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Social Service Secretarial Assistance to Forest and Environment (Environment Wing)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
Vehicles/Motor launch	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Environment Impact Assessment	N	N	Y	N	N	N	Y	Y	Y	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	Y	Y	N	N	N
Environment Impact Assessment	N	N	Y	N	N	N	Y	Y	Y	N	N	N	N	N	N	N	N	Y	N	N	N	N	Y	Y	N	N	N	N

SCHEMES AND PROGRAMMES		AP	ARU	ASS	BIH	GOA	GUJ	HAR	HP	J&K	KAR	KER	MP	MAH	MAN	MES	MIZ	NAG	ORI	PUN	RAJ	SIK	TN	TRL	UP	WB	AAM	PON	DEL	
Law and Enforcement		N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
E.P. Act		N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Watch and Enforcement		N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Miscellaneous		N	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
Grant-in-Aid to Gir Foundation		N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Provision for Schemes Posed for External Assistance		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N

Annexure - V

SEVENTH AND EIGHTH PLAN ALLOCATIONS

States/UTs	Population 1981	Population 1991	7th Plan Allocations (Rs. Lakhs)		7th Plan Allocations on environment as percentage of total	Per capita Per Annum Allocations on environment in 7th Plan (In Rupees)	8th Plan Allocations (Rs. Lakhs)		8th Plan Allocations on environment as percentage of total	Per capita Per Annum Allocations on environment in 8th Plan (In Rupees)
			Total	Environment			Total	Environment		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
STATES										
Andhra Pradesh	53549673	66304854	520000.00	544.00	0.10	0.18	1050000.00	200.00	0.02	0.06
Arunachal Pradesh	631839	858392	40000.00	7.50	0.02	0.20	115500.00	24.00	0.02	0.56
Assam	18041248	22294562	210000.00	227.00	0.11	0.23	466200.00	439.00	0.09	0.39
Bihar	69914734	86336853	510000.00	113.00	0.02	0.03	1300000.00	669.00	0.05	0.15
Goa	1086730	1168622	36000.00	28.97	0.08	0.51	76100.00	100.00	0.13	1.71
Gujarat	34085799	41174060	600000.00	156.00	0.03	0.08	1150000.00	950.00	0.08	0.46
Haryana	12922119	16317715	290000.00	148.00	0.05	0.20	570000.00	600.00	0.11	0.74
Himachal Pradesh	4280818	5111079	105000.00	35.00	0.03	0.15	250200.00	185.00	0.07	0.72
Jammu and Kashmir	5987389	7718700	140000.00	115.00	0.08	0.34	400000.00	880.00	0.22	2.28
Karnataka	37135714	44817398	350000.00	99.00	0.03	0.05	1230000.00	300.00	0.02	0.13
Kerala	25453680	29011237	210000.00	366.00	0.17	0.27	546000.00	730.00	0.13	0.50
Madhya Pradesh	52178844	66135862	700000.00	3446.00	0.49	1.17	1110000.00	2476.00	0.22	0.75
Maharashtra	62784171	78706719	1050000.00	176.00	0.02	0.05	1852000.00	243.00	0.01	0.06
Manipur	1420953	1826714	43000.00	35.00	0.08	0.43	97900.00	100.00	0.10	1.09
Naghalaya	1335819	1760626	44000.00	26.00	0.06	0.34	102900.00	150.00	0.15	1.70
Mizoram	493757	686217	26000.00	15.00	0.06	0.51	76300.00	25.00	0.03	0.73
Nagaland	774930	1215573	40000.00	0.00	0.00	0.00	84400.00	40.00	0.05	0.66
Orissa	26370271	31512070	270000.00	193.00	0.07	0.13	1000000.00	666.00	0.07	0.42
Punjab	16788915	20190795	328500.00	144.00	0.04	0.16	657000.00	435.00	0.07	0.43
Rajasthan	34261862	43880640	300000.00	148.00	0.05	0.08	1150000.00	1296.00	0.11	0.59
Sikkim	316385	403612	23000.00	55.00	0.24	3.06	55000.00	150.00	0.27	7.43
Tamil Nadu	48408077	55638318	575000.00	413.00	0.07	0.16	1020000.00	2000.00	0.20	0.72
Tripura	2053058	2744827	44000.00	74.00	0.17	0.62	113000.00	125.00	0.11	0.91
Uttar Pradesh	110862512	138760417	1044700.00	733.00	0.07	0.12	2100000.00	1500.00	0.07	0.22
West Bengal	54580647	67982732	412500.00	210.00	0.05	0.07	976000.00	754.00	0.08	0.22
Total-States	675719944	832560594	7911700.00	7507.47	0.09	0.20	17548500.00	15037.00	0.09	0.36
UNION TERRITORIES										
Andaman & Nicobar	188741	277989	28500.00	3.67	0.01	0.31	68500.00	25.00	0.04	1.80
Chandigarh	451610	640725	20300.00	0.00	0.00	0.00	40000.00	142.00	0.36	4.43
Dadra & Nagar Haveli	103676	138542	4617.00	0.20	0.00	0.03	8000.00	10.00	0.13	1.44
Daman & Diu		101439					6500.00	45.00	0.69	8.87
Delhi	6220406	9370475	200000.00	123.32	0.06	0.32	450000.00	220.00	0.05	0.47
Lakshadweep	40249	51681	4383.00	0.00	0.00	0.00	12000.00	40.00	0.33	15.48
Pondicherry	604471	789416	17000.00	7.26	0.04	0.21	40000.00	9.00	0.02	0.23
Total-UTs	7609153	11370267	274800.00	134.45	0.05	0.28	625000.00	491.00	0.08	0.86
All India Total	683329097	843930861	8186500.00	7641.92	0.09	0.20	18173500.00	15528.00	0.09	0.37

- Sources:
1. Seventh Five Year Plan, GOI, Planning Commission
 2. Eighth Five Year Plan, GOI, Planning Commission
 3. Census of India, 1991, Provisional Population Totals

ANNUAL PLAN ALLOCATIONS FOR SECTORS OTHER THAN THE ENVIRONMENT, 1991-92

ANNUAL PLAN, 1991-92 ALLOCATIONS														
	Total (For all Sectors)	Environment		Agriculture and Allied Activities (Forestry & Wildlife not included)		Irrigation and Flood Control		Rural Development		Energy		Industry and Minerals		Transport
	Allocation (Rs Lakhs)	Percentage of Total		Allocation (Rs Lakhs)	Percentage of Total	Allocation (Rs Lakhs)	Percentage of Total	Allocation (Rs Lakhs)	Percentage of Total	Allocation (Rs Lakhs)	Percentage of Total	Allocation (Rs Lakhs)	Percentage of Total	Allocation (Rs Lakhs)
(1)	(10)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
STATES														
Andhra Pradesh	14100.00	77.00	0.05	3430.00	2.43	18486.00	20.20	9100.00	6.45	41721.00	29.59	4596.00	3.26	20719.00
Arunachal Pradesh	23500.00	5.00	0.02	2685.00	11.43	1360.00	5.79	1023.00	4.35	2977.00	12.67	535.00	2.28	6927.00
Assam	80500.00	95.00	0.12	9692.00	12.04	10525.00	13.07	4015.00	4.99	19880.00	24.70	6590.00	8.19	5896.00
Bihar	225100.00	167.00	0.08	11680.00	5.19	61571.00	27.26	20857.00	9.27	47815.00	21.24	10215.00	4.54	16050.00
Goa	17250.00	14.00	0.08	1116.00	6.47	3315.00	19.22	459.00	2.66	1071.00	6.21	910.00	5.28	3360.00
Gujarat	175500.00	88.00	0.05	6848.00	3.90	45052.00	25.67	8010.00	4.56	48883.00	27.85	11037.00	6.29	10802.00
Haryana	76500.00	88.00	0.12	5277.00	6.90	12823.00	16.76	1524.00	1.99	18825.00	24.61	1994.00	2.61	4618.00
Himachal Pradesh	41000.00	25.00	0.06	4236.00	10.33	3503.00	8.54	1631.00	3.98	7200.00	17.56	1204.00	2.94	5287.00
Jammu and Kashmir	72300.00	70.00	0.10	6056.00	8.38	4214.00	5.83	1385.00	1.92	21648.00	29.94	3641.00	5.04	5196.00
Karnataka	151000.00	50.00	0.03	11746.00	7.78	14843.00	16.45	10791.00	7.15	37412.00	24.78	9667.00	6.40	9313.00
Kerala	80700.00	155.00	0.19	10881.00	13.48	10390.00	12.87	5838.00	7.23	15560.00	19.28	8480.00	10.51	6885.00
Madhya Pradesh	242600.00	598.00	0.25	15233.00	6.28	57572.00	23.73	12059.00	4.97	76252.00	31.43	9332.00	3.85	7444.00
Maharashtra	250000.00	73.00	0.03	17418.00	6.97	38030.00	15.21	25416.00	10.17	62625.00	25.05	9028.00	3.61	21411.00
Manipur	70000.00	23.00	0.12	1999.00	10.00	4401.00	22.01	504.00	2.52	3633.00	18.17	911.00	4.56	2699.00
Meghalaya	21000.00	20.00	0.10	2487.00	11.84	738.00	3.51	762.00	3.63	3920.00	18.67	723.00	3.44	3830.00
Mizoram	15200.00	5.00	0.03	1482.00	9.75	270.00	1.78	2620.00	17.24	2235.00	14.70	875.00	5.76	2122.00
Nagaland	17000.00	6.00	0.04	2435.00	14.32	651.00	3.83	1726.00	10.15	1751.00	10.30	1628.00	9.58	2472.00
Orissa	140200.00	90.00	0.06	8088.00	5.77	32053.00	22.86	8502.00	6.06	48100.00	34.31	10225.00	7.29	10711.00
Punjab	101000.00	59.00	0.06	9131.00	9.04	8546.00	8.46	2124.00	2.10	35100.00	34.75	6400.00	6.34	4637.00
Rajasthan	117000.00	190.00	0.16	7233.00	6.18	23357.00	19.96	7824.00	6.69	31896.00	27.26	6171.00	5.27	6129.00
Sikkim	9600.00	35.00	0.36	1106.00	11.52	720.00	2.29	292.00	3.04	7200.00	22.92	414.00	4.31	1730.00
Tamil Nadu	160500.00	140.00	0.09	15507.00	9.66	9216.00	5.74	8112.00	5.05	42604.00	26.54	10561.00	6.58	9430.00
Tripura	22700.00	22.00	0.10	3970.00	17.49	1800.00	7.93	1605.00	7.07	2400.00	10.57	1445.00	6.37	2000.00
Uttar Pradesh	371000.00	250.00	0.07	30680.00	8.27	42571.00	11.47	26552.00	7.16	126300.00	34.04	11127.00	3.00	35029.00
West Bengal	148600.00	110.00	0.07	7119.00	4.79	15514.00	10.44	10062.00	6.77	45271.00	30.47	19755.00	13.29	8090.00
Total-States	2720750.00	2475.00	0.09	197535.00	7.26	440821.00	16.20	172793.00	6.35	747279.00	27.47	147464.00	5.42	212786.00
UNION TERRITORIES														
Andaman & Nicobar	15450.00	5.00	0.03	625.20	4.05	122.00	0.79	89.00	0.58	1330.00	8.61	137.95	0.89	10132.00
Chandigarh	6536.00	5.75	0.09	168.50	2.58	20.00	0.31	99.75	1.53	865.30	13.24	70.00	1.08	273.00
Dadra & Nagar Haveli	2150.00	0.50	0.02	604.89	28.13	345.00	16.05	54.59	2.54	154.52	7.19	141.00	6.56	125.00
Daman & Diu	1618.00	0.50	0.03	163.71	10.12	43.00	2.66	30.00	1.85	186.00	11.50	135.25	8.36	283.00
Delhi	92000.00	72.25	0.08	1067.00	1.16	1546.70	1.68	500.00	0.54	27000.00	29.35	1000.00	1.09	13000.00
Lakshadweep	2296.00	7.50	0.33	483.42	21.05	50.00	2.18	44.67	1.95	324.00	14.11	47.63	2.07	716.00
Pondicherry	8500.00	3.00	0.04	892.00	10.49	277.00	3.26	387.00	4.55	1575.00	18.53	1053.00	12.39	638.00
Total- UTs	128550.00	94.50	0.07	4004.72	3.12	2403.70	1.87	1205.01	0.94	31434.82	24.45	2585.63	2.01	25167.00

All India Total	2849300.00	2569.50	0.09	201539.72	7.07	442704.70	15.56	173992.01	6.51	778713.62	27.33	150049.53	5.27	237953.00	8.35
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Source: 1. Annual Plan, 1991-92, GOI, Planning Commission

Annexure - VII

ANNUAL PLAN ALLOCATIONS

States/UTs	POPULATION 1991	TOTAL ANNUAL PLAN ALLOCATIONS			ANNUAL PLAN ALLOCATIONS ON ENVIRONMENT			PER CAPITA ALLOCATIONS ON ENVIRONMENT			ALLOCATIONS ON ENVIRONMENT AS A PERCENTAGE OF TOTAL ANNUAL PLAN ALLOCATIONS			PER CAPITA ALLOCATIONS ON ENVIRONMENT ADJUSTED FOR GROWTH IN POPULATION	
		1990-91	1991-92	1992-93	1990-91	1991-92	1992-93	1990-91	1991-92	1992-93	1990-91	1991-92	1992-93	1991-92	1992-93
		(In Rs. Lakhs)			(In Rs. Lakhs)			(In Rupees)						(In Rupees)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
STATES															
Andhra Pradesh	66304854	132300.00	141000.00	166000.00	52.00	77.00	77.01	0.08	0.12	0.12	0.04	0.05	0.05	0.11	0.11
Arunachal Pradesh	858392	18300.00	23500.00	24500.00	5.00	5.00	5.01	0.58	0.58	0.58	0.03	0.02	0.02	0.57	0.56
Assam	22294562	67500.00	80500.00	96000.00	85.00	95.00	100.01	0.38	0.43	0.45	0.13	0.12	0.10	0.42	0.43
Bihar	86338853	180500.00	225100.00	220273.00	30.00	187.00	113.01	0.03	0.22	0.13	0.02	0.08	0.05	0.21	0.12
Goa	1168622	13000.00	17250.00	15250.00	26.00	14.00	20.01	2.22	1.20	1.71	0.20	0.08	0.13	1.17	1.63
Gujarat	41174060	145100.00	175500.00	187500.00	52.00	98.00	130.01	0.13	0.21	0.44	0.04	0.05	0.10	0.21	0.42
Haryana	16317715	70000.00	76500.00	83000.00	86.00	98.00	84.01	0.53	0.54	0.51	0.12	0.12	0.10	0.53	0.49
Himachal Pradesh	5111079	36000.00	41000.00	48600.00	20.00	25.00	37.01	0.39	0.49	0.72	0.06	0.06	0.08	0.48	0.59
Jammu and Kashmir	7718700	65000.00	72300.00	82000.00	69.00	70.00	179.01	0.89	0.91	2.32	0.11	0.10	0.22	0.89	2.21
Karnataka	44817398	112000.00	151000.00	191500.00	33.00	50.00	60.01	0.07	0.11	0.13	0.03	0.03	0.03	0.11	0.13
Kerala	29011237	63500.00	80700.00	91300.00	135.00	155.00	145.01	0.47	0.53	0.50	0.21	0.19	0.16	0.52	0.48
Madhya Pradesh	66135862	200000.00	242600.00	240000.00	525.00	598.00	848.01	0.79	0.90	1.28	0.26	0.25	0.35	0.88	1.27
Maharashtra	78706719	245000.00	250000.00	316000.00	78.00	73.00	58.01	0.10	0.09	0.07	0.03	0.03	0.02	0.09	0.07
Manipur	1826714	17000.00	20000.00	21000.00	20.00	23.00	25.01	1.09	1.26	1.37	0.12	0.12	0.12	1.23	1.31
Meghalaya	1760626	17500.00	21000.00	24100.00	8.00	20.00	50.01	0.45	1.14	2.84	0.05	0.10	0.21	1.11	2.71
Mizoram	686217	12500.00	15200.00	16000.00	5.00	5.00	5.01	0.73	0.73	0.73	0.04	0.03	0.03	0.71	0.70
Nagaland	1215573	14500.00	17000.00	18500.00	5.00	6.00	6.01	0.41	0.49	0.49	0.03	0.04	0.03	0.48	0.47
Orissa	31512070	125000.00	140200.00	140500.00	280.00	90.00	104.01	0.89	0.29	0.33	0.22	0.06	0.07	0.29	0.32
Punjab	20190795	90500.00	101000.00	150000.00	58.00	59.00	120.01	0.29	0.29	0.59	0.06	0.06	0.08	0.29	0.57
Rajasthan	43880640	95600.00	117000.00	140000.00	131.00	190.00	200.01	0.30	0.43	0.46	0.14	0.16	0.14	0.42	0.44
Sikkim	403612	7600.00	9600.00	11000.00	25.00	35.00	30.01	6.19	8.67	7.43	0.33	0.36	0.27	8.47	7.10
Tamil Nadu	55638318	145000.00	160500.00	175100.00	131.00	140.00	23.01	0.24	0.25	0.04	0.09	0.09	0.01	0.25	0.04
Tripura	2744827	20000.00	22700.00	28200.00	22.00	22.00	25.01	0.80	0.80	0.91	0.11	0.10	0.09	0.78	0.87
Uttar Pradesh	138760417	320000.00	371000.00	385300.00	197.00	250.00	172.01	0.14	0.18	0.12	0.06	0.07	0.04	0.18	0.12
West Bengal	67982732	132900.00	148600.00	150100.00	70.00	110.00	110.01	0.10	0.16	0.16	0.05	0.07	0.07	0.16	0.15
Total-States	832560594	2346200.00	2720750.00	3021723.00	2148.00	2475.00	2776.01	0.26	0.30	0.33	0.09	0.09	0.09	0.29	0.32
UNION TERRITORIES															
Andaman & Nicobar	277989	9700.00	15450.00	15500.00	2.00	5.00	5.01	0.72	1.80	1.80	0.02	0.03	0.03	1.76	1.72
Chandigarh	640725	5596.00	6536.00	6800.00	5.00	5.75	7.75	0.78	0.90	1.21	0.09	0.09	0.11	0.88	1.15
Dadra & Nagar Haveli	138542	1299.46	2150.00	1815.00	0.00	0.50	0.00	0.00	0.36	0.00	0.00	0.02	0.00	0.35	0.00
Daman & Diu	101439	1257.74	1618.00	1450.00		0.50	1.00	0.00	0.49	0.99	0.00	0.03	0.07	0.48	0.94
Delhi	9370475	80000.00	92000.00	92000.00	151.00	72.25	30.00	1.61	0.77	0.32	0.19	0.08	0.03	0.75	0.31
Lakshadweep	51681	2200.00	2296.00	2500.00	0.00	7.50	8.25	0.00	14.51	15.96	0.00	0.33	0.33	14.18	15.24
Pondicherry	789416	7000.00	8500.00	9000.00	2.50	3.00	2.00	0.32	0.38	0.25	0.04	0.04	0.02	0.37	0.24
Total-UTs	11370267	107053.20	128550.00	129065.00	160.50	94.50	54.01	1.41	0.83	0.47	0.15	0.07	0.04	0.81	0.45
All India Total	843930861	2453253.20	2849300.00	3150788.00	2308.50	2569.50	2830.01	0.27	0.30	0.34	0.09	0.09	0.09	0.30	0.32

Sources: 1. Census of India, 1991, "Provisional Population Totals"
2. Annual Plans 1990-91, 1991-92, and 1992-93, Planning Commission

Annexure - VIII

STATE PLAN ALLOCATIONS AND INDUSTRIAL OUTPUT

STATES	VALUE OF INDUSTRIAL OUTPUT 1987-88	VALUE OF OUTPUT OF POLLUTING INDUSTRIES	PLAN ALLOCATIONS ON ENVIRONMENT 1987-88	PLAN ALLOCATIONS AS A PERCENTAGE OF VALUE OF INDUSTRIAL OUTPUT	PLAN ALLOCATIONS AS A PERCENTAGE OF VALUE OF OUTPUT OF POLLUTING INDUSTRIES
	(Rs. Lakhs)	(Rs Lakhs)	(Rs Lakhs)		
1.	2.	3.	4.	5.	6.
Andhra Pradesh	913654.21	237550.09	140.00	0.02	0.06
Bihar	810304.04	583418.91	26.00	0.00	0.00
Goa	55762.87	13940.72	8.00	0.01	0.06
Gujarat	1639470.66	1082050.64	25.00	0.00	0.00
Haryana	538259.80	134564.95	90.00	0.02	0.07
Karnataka	656446.85	164111.71	35.00	0.01	0.02
Kerala	417281.29	104320.32	80.00	0.02	0.08
Madhya Pradesh	800596.64	456340.08	900.00	0.11	0.20
Maharashtra	3283061.31	1280393.91	172.00	0.01	0.01
Orissa	292641.39	73160.35	33.00	0.01	0.05
Punjab	769830.23	192457.56	31.00	0.00	0.02
Rajasthan	435612.34	108903.09	40.00	0.01	0.04
Tamil Nadu	1634939.71	637626.49	80.00	0.00	0.01
Uttar Pradesh	1366602.50	505642.93	145.00	0.01	0.03
West Bengal	1108704.40	399133.58	51.00	0.00	0.01
TOTAL	14723168.24	5973615.32	1856.00	0.01	0.03

- Sources:
1. Annual Plan, 1987, GOI, Planning Commission
 2. Planning Commission.
 3. Supplement to Annual Survey of Industries, 1987-88, CSO

Annexure IX

ACTION POINTS EMANATING FROM THE NATIONAL CONSERVATION STRATEGY AND POLICY STATEMENT ON ENVIRONMENT AND DEVELOPMENT

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C1	Redirect development to fulfill basic needs of people (4.1)	PC	NONE
C2	Make sustainable use of natural resources (4.1)	MOEF, PC	NONE
C3	Try and reach lifestyles consistent with sustainability and human dignity (4.4)	MOEF, PC	NONE
C4	Frame conservation strategy to integrate environment and development (4.1)	MOEF	NA
C5	Reinforce traditional Indian ethos (4.2)	NONE	NA
C6	Build a society in harmony with nature (4.2)	MOEF	NONE
C7	Make frugal and efficient use of resources guided by the best available scientific knowledge (4.2)	MOEF, OTHR	NA

----- ABBREVIATION

DEPARTMENT/MINISTRY

DOBIO	BIOTECHNOLOGY	MOIND	INDUSTRIES
DOD	OCEAN DEVELOPMENT	MOLAB	LABOUR
MOAGRI	AGRICULTURE	MOMIN	MINES
MOCOM	COMMERCE	MOPOW	POWER
MODEF	DEFENCE	MORAIL	RAILWAYS
MOEA	EXTERNAL AFFAIRS	MORD	RURAL DEVELOPMENT
MOEF	ENVIRONMENT AND FORESTS	MOS&T	SCIENCE AND TECHNOLOGY
MOFIN	FINANCE	MOSTRA	SURFACE TRANSPORT
MOHEA	HEALTH	MOSW	SOCIAL WELFARE
MOHRD	HUMAN RESOURCES DEVELOPMENT	MOUD	URBAN DEVELOPMENT
MOI&B	INFORMATION AND BROADCASTING	MOWR	WATER RESOURCES
		OTHR	OTHER MINISTRIES
		PC	PLANNING COMMISSION

C8	Ensure sustainable and equitable use of resources for meeting basic needs without causing damage to the environment (4.3)	MOEF, PC	NA
C9	To prevent further damage to and conserve natural and man-made heritage (4.3)	MOEF, MOHRD	Various
C10	Curtailement of consumerism (6.0)	None	None
C11	Integration and Internalisation of Environmental considerations in policies and programmes of development in various sectors (6.0)	MOEF, PC	None
C12	Ensure equitable access to and responsibility for sustainable use of land (5.2.1.4)	MOEF, MOAGRI, MORD, PC	Some for access None for sustainable use
C13	Ensure equitable access to and responsibility for sustainable use of water (5.2.1.4)	MOEF, MOAGRI, MOPOW, MOIND, MOWR, MOUD, PC	None
C14	Use sterner legislative measures for population control (5.1.1)	MOHEA	NA
C15	Use better incentives for population control (5.1.1)	MOHEA	NA
C16	Launch time bound national campaign for population stabilisation (5.1.2)	MOHEA	NA
C17	Increase support for female education and employment (5.1.2)	MOHRD, MORD	None
C18	Increase support for social security programmes (5.1.2)	MOSW, MORD, MOAGRI	NA
C19	Provide easy access to means of family planning (5.1.2)	MOHEA	NA
C20	Provide easy access to health care facilities (5.1.2)	MOHEA	NA

C21	Added incentives (eg. taxation), for family planning (5.1.2)	MOHEA, MOFIN	NA
C22	Prevention and control of communicable diseases (5.1.2)	MOHEA	NA
C23	Prevent and control future deterioration in land (4.3)	MOEF, MOAGRI, MOMINE, MORD	
C24	Prevent and control future deterioration in water (4.3)	MOWR, MOUD, MOEF, MOIND	EPA, Water Act, Water Cess Act
C25	Prevent and control future deterioration in air (4.3)	MOEF, MOPOW, MOIND, MOSTRA	Air Act
C26	Restoration of ecologically degraded areas (4.3)	MOEF, OTHR	None
C27	Environmental improvement in rural settlements (4.3)	MOEF, MORD	
C28	Environmental improvement in urban settlements (4.3)	MOEF, MOUD, MOIND, MOPOW, MOSTRA	
C29	Ensure correct siting of development projects (4.3)	MOEF, OTHR	None
C30	Ensure environment and productivity of coastal and marine ecosystems is protected (4.3)	MOEF, MODEF, MOAGRI, DOD	Water Act
C31	Conserve genepools, biodiversity, and other resources through environmentally sustainable development and management of ecosystems (4.3)	MOEF	WLPA, IFA
C32	Protect scenic landscapes and areas of geomorphological significance (4.3)	MOEF, OTHR	None
C33	Protect unique biomes and ecosystems (4.3)	MOEF	WLPA, IFA
C34	Protect representative biomes and ecosystems (4.3)	MOEF	WLPA, IFA

C35	Protect wildlife habitats (4.3)	MOEF	WLPA, IFA
C36	Protect heritage sites/structures and areas of cultural heritage (4.3)	MOEF, MOHRD	NONE
C37	To carry out EIA of all development projects from the planning stage and integrate it with cost benefit considerations (4.4)	MOEF	None
C38	Ensure environmental clearance of all projects above a certain size (4.4)	MOEF	None
C39	Ensure environmental clearance of all projects in ecologically sensitive areas (4.4)	MOEF	None
C40	Incorporate environmental safeguards and protection measures in policies, planning, site selections, choice of technology and implementation of development projects	MOEF, PC, OTHR	NONE
C41	Incorporate environmental safeguards in agricultural projects (4.4)	MOEF, MOAGRI	None
C42	Incorporate environmental safeguards in Water Resource projects (4.4)	MOEF, MOWR	None
C43	Incorporate environmental safeguards of development projects in Industrial projects (4.4)	MOEF, MOIND	None
C44	Incorporate environmental safeguards in Mineral Extraction and Processing projects (4.4)	MOEF, MOMINE	None
C45	Incorporate environmental safeguards in Energy projects (4.4)	MOEF, MOPOW	None

C46	Incorporate environmental safeguards in forestry projects (4.4)	MOEF	IFA, FCA, WLPA
C47	Incorporate environmental safeguards in Transport projects (4.4)	MOEF, MOTRAN	None
C48	Incorporate environmental safeguards in Human Settlements projects (4.4)	MOEF, MOUD	None
C49	Encourage R&D of environmentally compatible technologies (4.4)	MOEF, MOS&T, MOIND, MOPOW	NA
C50	Encourage adoption of environmentally compatible technologies (4.4)	MOEF, OTHR	
C51	Promote application of modern science and technology for conservation (4.4)	MOEF, OTHR	NA
C52	Promote application of modern science and technology for bridging gaps between supply and demand of natural resources (4.4)	MOEF, OTHR	NA
C53	Promote application of modern technology for control and monitoring of natural resources (4.4)	MOEF, OTHR	NA
C54	Elicit and ensure people's participation in programmes for environmental improvement (4.4)	MOEF	None
C55	Elicit and ensure people's participation in integration of environmental concerns in planning and implementing development programmes (4.4)	MOEF, PC, OTHR	None
C56	Create environmental consciousness through education and mass awareness (4.4)	MOEF, MOHRD, MOI&B	NA

C57	Aim at moderation of the process of demand unleashed by development (4.4)	PC, OTHR	NONE
C58	Recycle waste materials and natural resources (4.4)	MOEF, OTHR.	None
C59	Conserve energy (4.4)	MOPOW, OTHR	None
C60	Conserve use of natural resources in industrial products (4.4)	MOEF, MOIND	None
C61	Develop appropriate organisational structures for environmental management (4.4)	PC, MOEF	WLPA, Air Act, Water Act and others
C62	Develop a pool of professional manpower for environmental management (4.4)	MOEF, MOHRD, Dept. of Personnel & Training, MOS&T	NA
C63	Effectively implement laws and regulations for environmental protection through strengthening the requisite enforcement machinery (4.4)	PC, MOEF	NA
C64	Have a comprehensive program for population control (5.1.1)	MOHEA	NA
C65	Environmental sanitation (5.1.2)	MOEF, MOHEA, MOUD, MORD	NA
C66	Adopt decentralised renewable energy devices with special care for women's health (5.1.2)	MOPOW	None
C67	Adopt an integrated land and water management approach (5.2.1.1)	MOEF, PC, MOAGRI, MORD, MOWR	None
C68	Considering land and water use together in the context of droughts and floods (5.2.1.3)	MOEF, PC, MOAGRI, MORD, MOWR	None
C69	Amelioration of water logged lands and salt affected lands (5.2.1.2)	MOAGRI, MOWR, MORD, MOEF	NA

C70	Adoption of command area development approach for all irrigation projects (6.1.2) (5.2.1.2)	MOEF, MOAGRI, MOWR	NA
C71	Measures for provision of drainage in irrigation projects to prevent water logging and leaching (6.1.2)	MOEF, MOAGRI, MOWR	NA
C72	Protection of good agricultural land against diversion to urban and other uses (5.2.1.2) (6.1.1)	MOEF, MOAGRI, MORD, MOUD	None
C73	Prevention of land fragmentation (5.2.1.2)	MOAGRI, MOUD, MORD	
C74	Maintenance of sustained productivity of soil (5.2.1.2)	MOAGRI, MORD, MOEF	None
C75	Conservation of lands with forests and vegetal cover (5.2.1.2)	MOEF, OTHR	IFA, FCA, WLPA
C76	Water conservation and discipline on use of water in households, agriculture, and industry (5.2.1.3)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	Water Cess Act
C77	Appropriate recycling of water (5.2.1.3)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	NONE
C78	Measures for water conservation (5.2.1.4)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	NONE
C79	Recycling and optimal conjunctive use of surface water (5.2.1.4)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	NONE
C80	Recycling and optimal conjunctive use of ground water (5.2.1.4)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	NONE
C81	Evolving cost effective and efficient methods of water conservation and water use (6.1.1)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	NONE
C82	Measures for increasing the efficiency of water use (6.1.2)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	NONE
C83	Measures for increasing the efficiency of water conservation (6.1.2)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	NONE

C84	Measures for increasing the efficiency of water recycling (6.1.2)	MOEF, MORD, MOUD, NONE MOWR, MOIND, MOAGRI	
C85	Classification, zoning, and apportionment of land for designated uses on the basis of its capabilities and environmental considerations (5.2.1.4)	PC, MOAGRI, MORD, NONE MOUD, MOEF, MOIND	
C86	Ensuring land for different uses based upon land capability and land productivity (6.1.1)	PC, MOAGRI, MORD, NONE MOUD, MOEF, MOIND	
C87	Enactment of laws for appropriate land use (5.2.1.4)	MOEF, MOAGRI, MORD	NA
C88	Protection of land near water bodies (5.2.1.4)	MOEF, MOWR	None
C89	Micro level planning to develop appropriate methodology and implementation of action plans with involvement of people (5.2.1.4)	MOEF, MOAGRI, MOWR, MORD, PC	None
C90	Countrywide campaign to minimise soil and run-off losses (5.2.1.4)	MOEF, MOAGRI, MORD, MOWR	NA
C91	To make the minimisation of soil and run-off loss the specific charge of project authorities in all irrigation, power, road, and agricultural projects (5.2.1.4)	MOEF, MOWR, MOAGRI, MOPOW, MOSTRA	None
C92	Watershed management through catchment treatment of drainage and protection of vegetal cover (6.1.2)	MOEF, MOWR, MOAGRI, MOPOW, MORD	None
C93	Measures to prevent siltation in an integrated manner (6.1.2)	MOEF, MOWR, MOAGRI, MOPOW, MORD	None

C94	Revival of traditional water management systems and development of alternate irrigation systems such as harvesting and conservation of run-off water (6.1.2)	MOEF, MOWR, MOAGRI, MORD	NA
C95	Restoration and reclamation of degraded areas (5.2.1.4)	MOEF, OTHR	None
C96	Measures for preventing wind erosion in desert areas (5.2.1.4)	MOEF, MORD, MOAGRI	None
C97	Development of agro-silvipastoral techniques with reference to hilly areas (5.2.1.4)	MOEF, MOAGRI, MORD	N.A.
C98	Development of agro-silvipastoral techniques with reference to arid and semi-arid zones (5.2.1.4)	MOEF, MOAGRI, MORD	N.A.
C99	Building network for assessment and monitoring of soil quality (5.2.1.4)	MOAGRI, MOEF	None.
C100	Building network for assessment and monitoring of water [surface and ground water] quality (5.2.1.4)	MOWR, MOEF	WA
C101	Legislation to check over exploitation of surface water (5.2.1.4)	MOEF, MOWR, MOAGRI	NA
C102	Legislation to check over exploitation of ground water (5.2.1.4)	MOEF, MOWR, MOAGRI	NA
C103	Conservation of wetlands (5.2.1.4)	MOEF, MOWR	None
C104	Encourage and improve traditional methods of rain water harvesting and storage (5.2.1.4)	MOEF, MOWR, MOAGRI, MORD	None
C105	Prevention and control of pollution due to disposal of solid wastes, effluents, and hazardous substances (5.2.1.4)	MOEF, OTHR	WA, AA

C106	Control pollution of waterbodies from industrial and municipal wastes (5.2.1.4)	MOEF, MOIND, MOUD WA	
C107	Classification and zoning for maintaining the quality of waterbodies (5.2.1.4)	MOEF, MOWR	None
C108	Regulations for maintaining the quality of waterbodies (5.2.1.4)	MOEF, MOWR	WA
C109	Adoption of low cost sanitation technology (5.2.1.4)	MOEF, MOHEA, MORD, MOWR	NA
C110	Use of clean fuels (5.2.2.1)	MOEF, OTHR	None
C111	Use of clean technologies (5.2.2.1)	MOEF, OTHR	None
C112	Use of energy efficient devices (5.2.2.1)	MOEF, OTHR	None
C113	Use of air and noise pollution control systems (5.2.2.1)	MOEF, OTHR	AA for air None for noise
C114	Setting up of source specific and area wise air quality standards (5.2.2.1)	MOEF	AA
C115	Time bound plans to prevent and control pollution (5.2.2.1)	MOEF, OTHR	AA
C116	Location of projects to minimise the adverse impact on people and environment (5.2.2.1)	MOEF, OTHR	None
C117	Incentives for environmentally benign substitutes and technologies for energy conservation (5.2.2.1)	MOEF, OTHR	NA
C118	Raising of green belts with pollution tolerant species (5.2.2.1)	MOEF, OTHR	None
C119	Develop coping mechanisms for future climatic changes (5.2.2.1)	MOEF, OTHR	NA

C120	Action to control adverse impact on Indian continent due to ozone depletion (5.2.2.1)	MOEF, OTHR	NA
C121	Devise and enforce time bound plans for saving endangered animal and plant species (5.2.3.1)	MOEF	WLPA
C122	Devise and enforce time bound plans for saving habitats of biological resources (5.2.3.1)	MOEF	WLPA, IFA, FCA
C123	Surveys and inventories of biological resources in the country (5.2.3.1)	MOEF	NA
C124	Ecological and taxonomic studies on flora and fauna (5.2.3.1)	MOEF	NA
C125	Conservation of biodiversity through a network of protected areas (5.2.3.1)	MOEF	WLPA
C126	Rehabilitation of rural poor/tribals displaced due to creation of protected areas (5.2.3.1)	MOEF	None
C127	Conservation of micro-fauna and micro-flora (5.2.3.1)	MOEF, DOBIO	None
C128	Laws and Practices for protection and sustainable use of plant and animal genetic resources (5.2.3.1)	MOEF	WLPA
C129	Protection of domesticated species of plants and animals (5.2.3.1)	MOAGRI, MORO	None
C130	Maintenance of forest corridors between protected areas (5.2.3.1)	MOEF	NA
C131	Emulation and support for protecting traditional knowledge and skills (5.2.3.1)	MOEF, MOHRD	None

C132	[Biodiversity convention and Wildlife Action Plan] Development of methodologies to multiply, breed, and conserve threatened and endangered species through modern techniques of tissue culture and biotechnology (5.2.3.1)	MOEF, MOAGRI, DOBIO	NA
C133	Discouragement of monoculture and plantation of dominating and exotic species in areas unsuited for them (5.2.3.1)	MOEF, MOAGRI, MORD	None
C134	Restriction on introduction of exotic species of animals (5.2.3.1)	MOEF, MOAGRI	None
C135	Devising mechanisms by which local people can conserve and use resources of common lands and degraded forests (5.2.4.1)	MOEF, MORD, MOAGRI	None
C136	Encourage private individuals and institutions to regenerate and develop their wastelands (5.2.4.1)	MOEF, MORD, MOAGRI	NA
C137	Raising of fuelwood species (5.2.4.1)	MOEF, MORD, MOAGRI	NA
C138	Provision of alternatives to reduce dependence on fuelwood (5.2.4.1)	MOEF, MORD, MOS&T, MOAGRI, MOPOW	NA
C139	Provision of alternatives to reduce dependence on timber (5.2.4.1)	MOEF, MORD, MOS&T, MOAGRI, MOPOW	NA
C140	Increase production of fodder and grasses (5.2.4.1)	MOEF, MORD, MOAGRI	NA
C141	Raising of bamboo and species providing small timber (5.2.4.1)	MOEF, MORD, MOAGRI	NA

C142	Increase biomass to meet essential requirement of biomass based industry (5.2.4.1)	MOEF, MORD, MOAGRI, MOIND	None
C143	Promoting direct relationship between forest-based industry and farmers (5.2.4.1)	MOEF, MORD, MOAGRI, MOIND	None
C144	R&D in forestry (5.2.4.1)	MOEF, MOAGRI, MOS&T	NA
C145	Development of technologies for enhancing the productivity and efficiency of use of all biomass resources (5.2.4.1)	MOEF, MOAGRI, MOS&T	NA
C146	Build systems to enable rural artisans to sustain Biomass based crafts (5.2.4.1)	MOEF, MORD, MOS&T	None
C147	Curtailement of the supply of subsidised biomass based resources to industrial consumers (5.2.4.1)	MOEF, MOIND, MOFIN	None
C148	Shift towards use of environment friendly products and processes (6.0)	MOEF, OTHR	None
C149	Shift towards low waste generating technologies (6.0)	MOEF, OTHR	None
C150	Pricing of natural resources (6.0)	MOEF, MOFIN	None
C151	Fiscal incentives and disincentives for ensuring conservation and sustainable development (6.0)	MOEF, MOFIN	None
C152	Development of pesticides and insecticides policy (6.1.1)	MOEF, MOS&T, MOAGRI, MOHEA	NA
C153	Development of integrated pest management and nutrient supply system (6.1.1)	MOEF, MOAGRI, MOHEA	None

C154	Development of methods of sustainable farming, especially organic and natural farming (6.1.1)	MOEF, MOAGRI	N.A.
C155	Efficient use of inputs with minimal degradation of environment (6.1.1)	MOEF, MOS&T, MOAGRI, MOHEA	N.A.
C156	Phasing out of persistent and toxic pesticides and substitution by environmentally safe pesticides (6.1.1)	MOEF, MOS&T, MOAGRI, MOHEA	N.A.
C157	Promotion of environmentally compatible cropping practices, biofertilisers, and biopesticides (6.1.1)	MOEF, MOS&T, MOAGRI, MOHEA	N.A.
C158	Incentives for cultivation of crops with high nutritive value, and lesser demands on water and energy inputs (6.1.1)	MOAGRI, MOEF, MOWR	NA
C159	Encouraging crop rotation patterns (6.1.1)	MOAGRI	NA
C160	Strengthening of local bodies like Zilla Parishads, Panchayats and Samitis to ensure effective decentralisation and optimal resource management (6.1.1)	MOEF, MORD	Proposed Panchyat Act
C161	Anticipatory programs and contingency plans for drought (6.1.1)	MOEF, MOAGRI, MORD, MOWR	NA
C162	Anticipatory programs and contingency plans for flood (6.1.1)	MOEF, MOWR	NA
C163	Anticipatory programs and contingency plans for climate change (6.1.1)	MOEF, OTHR	NA
C164	Priority to small projects with little environmental alteration (6.1.2)	MOEF, OTHR	NA

C165	Forming decentralised networks of small irrigation and water projects (6.1.2)	MOWR, MOEF	NA
C166	Critical assessment of irrigation projects and delivery systems to ensure optimal utilisation of water along with measures to mitigate environmental and social damage (6.1.2)	MOEF, MOWR	None
C167	Design and implementation of environmentally sustainable irrigation projects (6.1.2)	MOEF, MOWR	NA
C168	Start ongoing evaluation and monitoring of all irrigation projects (6.1.2)	MOEF, MOWR	NA
C169	Develop an animal husbandry policy (6.2)	MOAGRI, MOEF	N.A.
C170	Intensification of sterilisation program for livestock (6.2)	MOAGRI, MOEF	NA
C171	Improvement in genetic variability of indigenous population (6.2)	MOAGRI, MOEF	NA
C172	Distribution of animals like goats under the Integrated Rural Development Program strictly consistent with the availability of pasture lands (6.2)	MORD, MOEF	NA
C173	Propagation of wildlife and wildlife resources management on a sustainable basis (6.2)	MOEF	WLPA
C174	Selective breeding of animals used for draught power to conserve fuel (6.2)	MOAGRI, MORD, MOFOW	NA
C175	Promotion of stall feeding and rotational grazing (6.2)	MOEF, MOAGRI, MORD	NA

C176	Restoration and protection of grazing lands (6.2)	MOEF, MOAGRI, MORD	None
C177	Involvement of local people in the policy planning on pasture lands and stall feeding (6.2)	MOEF, MOAGRI, MORD	NA
C178	Incentive for growing fodder crops and establishment of fodder banks (6.2)	MOEF, MOAGRI, MORD	NA
C179	Raising forest cover (6.3)	MOEF	IFA, FCA, WLPA
C180	Conserving the natural heritage of the country (6.3)	MOEF	IFA, FCA, WLPA
C181	Increasing substantially the forest/tree cover in the country (6.3)	MOEF	IFA, FCA, WLPA
C182	Conservation of existing forests (6.3)	MOEF	IFA, FCA, WLPA
C183	Maintenance of environmental stability through preservation and restoration of the ecological balance (6.3)	MOEF, OTHR	EPA
C184	Meeting the rights and concessions for requirements of fuelwood, fodder, MFP, and small timber (6.3)	MOEF, MORD, MOAGRI	None
C185	Increasing the productivity of forests to meet essential national needs (6.3)	MOEF	NA
C186	Encourage efficient utilisation of forest produce (6.3)	MOEF, OTHR	NA
C187	Restriction on diversion of forest lands for non-forest use and compensatory afforestation in case where diversion of forest land is unavoidable (6.3)	MOEF	FCA

C188	Afforestation on common lands by local communities through usufruct sharing schemes (6.3)	MOEF, MORD	NA
C189	Motivation of farmers/land owners to resort to tree farming (6.3)	MOEF, MORD, MOAGRI	NA
C190	Substitution of wood by other materials (6.3)	MOEF, MOIND, MOS&T	None
C191	Permission to forest-based enterprises after a thorough scrutiny regarding the availability of raw materials (6.3)	MOEF, MOIND	None
C192	Supply of forest produce to the industrial consumers only at its true market value (6.3)	MOEF, MOIND	NA
C193	Involvement of local people and grass roots NGO's in the afforestation program and for protection of existing forests (6.3)	MOEF, MORD	None
C194	Creation of land banks for compensatory afforestation (6.3)	MOEF, OTHR	NA
C195	Prevention and control of pollution and environmental hazards in energy generation and use (6.4)	MOEF, MOPOW	WA, AA, EPA
C196	Popularisation of environmentally benign energy systems (6.4)	MOEF, MOPOW	
C197	EIA prior to investment decisions and site selection (6.4)	MOEF	None
C198	Choice of practicable and clean technologies for energy generation (6.4)	MOEF, MOPOW	NA
C199	Build processes for waste utilisation, treatment and disposal of solid wastes, effluents and emissions (6.4)	MOEF, MOPOW, OTHR	None

C200	Location of projects based on environmental considerations including pollution, displacement of people, and loss of biodiversity (6.4)	MOEF, MOPOW, OTHR	None
C201	Decentralised small projects for rural energy and incentives for use of non-conventional energy (6.4)	MOEF, MOPOW, MORD	NA
C202	Incentives and punitive measures (including proper pricing) to prevent abuse and promote use of energy efficient devices in production and distribution systems for energy conservation (6.4)	MOPOW, MOEF, OTHR	None
C203	Development and propagation of non-conventional renewable energy generating systems (6.4)	MOPOW, MOS&T	NA
C204	Promote use of alternative sources of energy (6.3)	MOPOW, MOEF, OTHR	NA
C205	Promote use of fuel efficient stoves (6.3)	MORD, MOPOW	NA
C206	Setting up of biogas plants (6.4)	MORD, MOPOW	NA
C207	Integrate industrial growth with environment (6.5)	MOEF, MOIND, PC	NA
C208	Incentives for environmentally clean technologies, recycling and reuse of wastes, and conservation of natural resources (6.5)	MOEF, OTHR	NA
C209	Operationalisation of the 'polluter pays principle' by introducing effluent tax, resource cess for industry, and implementation of standards based on resource consumption and production capacity (6.5)	MOEF, OTHR	WA, AA

C210	Fiscal incentives to small-scale industries for pollution control and reduction of wastes (6.5)	MOEF, MOIND, MOFIN	NA
C211	Deciding industrial sites so that wastes from one can be used as raw material for the other (6.5)	MOEF, MOIND,	
C212	Location of industries as per environmental guidelines for siting of industry (6.5)	MOEF, MOIND	None
C213	Enforcement of pollution control norms with particular attention to highly polluting industries (6.5)	MOEF	WA, AA
C214	Encourage use of environmentally benign automobiles/motor vehicles (6.5)	MOEF, MOSTRA, MOS&T	Motor Vehicles Act
C215	Encourage reduction of auto-emissions (6.5)	MOEF, MOIND, MOSTRA	Motor Vehicles Act
C216	Installation and operation of common effluent treatment facilities in industrial estates and in areas with a cluster of industries (6.5)	MOEF, MOIND	NA
C217	Introduction of 'Environmental Audit' with special reference to pollution control and waste management (6.5)	MOEF, MOIND, OTHR	NA
C218	Dissemination of information for public awareness on environmental safety aspects (6.5)	MOEF, MOI&B	None
C219	Measures to ensure safety of workers and general population against hazardous substances and processes (6.5)	MOEF, MOIND, MOI&B, OTHR	WA, AA, EPA
C220	Preparation of on-site emergency plans for hazardous industries (6.5)	MOEF, MOIND	None

C221	Preparation of off-site emergency plans for districts in which hazardous units are located (6.5)	MOEF, MOIND, MOUD	None
C222	Public liability insurance against loss or injury to life or property (6.5)	MOEF, MOFIN	PIL Act
C223	Setting up of environment cells for implementing environmental management plans (6.5)	MOEF, OTHR	NA
C224	Setting up of environmental cells for compliance of environmental laws (6.5)	MOEF	NA
C225	Internalising environmental safeguards as components of the total project cost (6.5)	MOEF, OTHR	None
C226	EIA from the planning stage and selection of sites for location of industries (6.5)	MOEF	None
C227	Clearance by MoEF of all projects above a certain size and in certain fragile areas (6.5)	MOEF	None
C228	Prevent and mitigate environmental repercussions in mining and quarrying (6.6)	MOEF, MOMINE	None
C229	Mined area rehabilitation (6.6)	MOMINE, MOEF	None
C230	Implementation of the environmental management plans concurrently with the on-going mining operations (6.6)	MOMINE, MOEF	None
C231	Laying down of requisite stipulations for mining leases regarding tenure, size, shape, and disposition with reference to geological boundaries (6.6)	MOMINE, MOEF	None

C232	Ensure systematic extraction of minerals along with environmental conservation (6.6)	MOMINE, MOEF	None
C233	Emphasis on production of value added finished products to reduce indiscriminate extraction (6.6)	MOMINE, MOEF, OTHR	NA
C234	Upgradation and beneficiation of minerals at the source to ensure utilisation of low-grade mineral resources, and reduce cost of transportation, processing, and utilisation (6.6)	MOMINE, OTHR	NA
C235	Environmentally safe disposal of the by-products of mining (6.6)	MOMINE, MOEF	None
C236	Restriction on mining and quarrying activities in sensitive areas such as hill slopes, natural springs, and areas rich in biodiversity (6.6)	MOEF, MOMINE	None
C237	Discouraging selective mining of high grade ores (6.6)	MOMINE	None
C238	Recovery of lower grade ores during mining (6.6)	MOMINE	None
C239	EIA prior to selection of sites for mining and quarrying activities (6.6)	MOEF, MOMINE, MOMINE	None
C240	Ensure sustainable growth of tourism without causing irreversible damage to natural environment (6.7)	MOEF, MOTOUR	None
C241	Promotion of tourism based on assessment of carrying capacity and support facilities like transport, fuel, water, and sanitation (6.7)	MOEF, MOTOUR	None

C242	Development of tourism in harmony with the environment and without affecting the lifestyles of local people (6.7)	MOEF, MOTOUR	None
C243	Restriction on indiscriminate growth of tourism (6.7)	MOTOUR, MOEF	None
C244	Strict regulation of the tourist activities in sensitive areas such as hill slopes, islands, coasts, national parks, and sanctuaries (6.7)	MOEF, MOTOUR	WLPA for parks and sanctuaries for other
C245	Prevention of pollution (6.8)	MOSTRA, MOEF, OTHR	WA, AA
C246	Development of an environmentally compatible transport system (6.8)	MOSTRA, MOEF, MORAIL, PC	NA
C247	Improvement in mass transport system to reduce consumption of fuel, traffic congestion, and pollution (6.8)	MOSTRA, MORAIL, PC	NA
C248	Improved transport system based on bio-energy and other non-polluting energy sources (6.8)	MOSTRA, MOS&T, PC	N.A.
C249	Rail transport and pipeline transport instead of road transport (6.8)	MOSTRA, MORAIL, PC, OTHR	NA
C250	Transportation of hazardous substances through pipelines (6.8)	MOIND, OTHR	None
C251	Maintain roads, update traffic regulation, and enforce prescribed standards to improve traffic flow (6.8)	MOSTRA	NA
C252	Enforcement of smoke emission standards (6.8)	MOEF, MOSTRA	AA
C253	Phasing out the use of lead in motor spirit (6.8)	MOEF, MOSTRA, MOPOW	None

C254	Regulations for environmental safety in transportation of hazardous substances (6.8)	MOSTRAN, MORAIL, EPA MOCAV, MOEF	
C255	Check unplanned growth of human settlements (6.9)	MORD, MOUD	NA
C256	Ensure a better quality of life for people (6.9)	PC, OTHR	NA
C257	Creation of gainful employment opportunities in rural areas (6.9)	MORD, MOAGRI, MOIND, PC	None
C258	Provision for meeting basic needs through better communications, entertainment, medical and educational facilities in rural areas (6.9)	MORD, MOUD, PC, OTHR	None
C259	Establishment of secondary cities and towns with infrastructural services and employment opportunities by developing human settlement perspective plan at national and state level (6.9)	MOUD, PC	NA
C260	Disincentives for industrial and job location in existing urban centers. Improvement of infrasturctural facilities in an integrated manner (6.9)	MOUD, MOIND	None
C261	Promoting the use of indigenous building materials and appropriate construction technologies (6.9)	MOUD, MOS&T, MOEF	None
C262	Revising building and planning codes supporting small scale production, skill upgradation of artisans and people oriented delivery systems (6.9)	MOUD, MORD, MOEF	None

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|------|---|----------------------------|
| C263 | Regulation to ensure heritage sites and buildings are not demolished, encroached upon and affected by indiscriminate construction and pollution (6.9) | MOUD, MORD, MOHRD None (?) |
| C264 | Stock-taking of buildings/areas/monuments of heritage value in the country (6.9) | MOUD, MORD, MOHRD N.A. |

C265	Recycling of existing building stock to save green open compounds and save building material (6.9)	MOUD	None
C266	Planting of shade giving and fruit bearing, ornamental trees (6.9)	MOEF, MOUD, MORD	NA
C267	Botanical gardens representing the local flora (6.9)	MOEF, MOUD	NA
C268	Raising of gardens, parks and open spaces in the towns and cities (6.9)	MOUD, MOEF	NA
C269	Assigning responsibility amongst the various authorities for the propagation and protection of urban forestry (6.9)	MOUD, MOEF	NA
C270	Deterrent measures to discourage indiscriminate growth of human settlement and polluting industries in hilly regions (6.9)	MOUD, MORD, MOEF, MOIND	None
C271	Deterrent measures to discourage indiscriminate growth of human settlement and polluting industries in coastal stretches (6.9)	MOUD, MORD, MOEF, MOIND	None
C272	Environmental appraisal of projects related to urban development and regional planning (6.9)	MOEF, MOUD, MORD	None
C273	Preparation of environmental/eco-development plans for sensitive regions and sub-regions (6.9)	MOEF, PC	None
C274	Prevention of environmental health problems and associated communicable and non-communicable diseases by educating people (6.9)	MOEF, MOHEALTH, MOUD, MORD, MOHRD	NA
C275	Creation/strengthening of health care facilities for all sections of society (6.9)	MOUD, MORD, MOHEALTH	NA

C276	Establishment of monitoring systems and epidemiological data to ensure adequate early warning system for prevention and control of diseases (6.9)	MOUD, MORD, MOHEALTH	None
C277	Creation of new economic order (7.2)	PC	N.A.
C278	Augment India's capacity to deal with environmental problems with new and additional funding and environmentally sound technology transfer (7.3)	MOEA, MOEF, MOS&T, MOFIN, MOCOM, PC	N.A.
C279	Reduction of international economic and commercial pressures which generate unsustainable exploitation (7.3)	MOEF, OTHR	None
C280	Get additional financial resources to tackle environmental damage (7.3)	MOFIN, MOEF, OTHR	None
C281	Minimise adverse environmental impacts of development (7.4)	MOEF, PC, OTHR	NA
C282	To try and reflect traditional Indian ethos in modern lifestyles (7.4)	MOEF, MOHRD, OTHR	NA
C283	Linkage among compartmentalised sectors (8.1.1)	PC, OTHR	NA
C284	Change in institutional mechanism for public participation (8.1.1)	MOEF, OTHR	None
C285	Quick decision making on development projects based on their potential to render long term benefits to society, particularly vulnerable sections (8.1.1)	PC, OTHR	N.A.
C286	Implementation of laws and regulations for environmental protection (8.1.1)	MOEF	NA

C287	Periodic review of existing laws and enforcement mechanisms (8.1.2)	MOEF	NA
C288	Analyse how economic policies affect environmental resources (8.2.1)	MOEF, PC, OTHR	N.A.
C289	Build a system of natural resource accounting (8.2.1)	MOEF, PC	None
C290	GNP and GDP to include measures of environmental cost (8.2.2)	MOEF, MOFIN, PC	None
C291	Prepare an annual natural resources budget (8.2.3)	MOEF, PC	None
C292	Orient available management resources towards environmental considerations (8.3.1)	MOEF, MOHRD	N.A.
C293	Develop expertise through training programs (8.3.1)	MOEF, MOHRD	N.A.
C294	Formal education and training in pollution control and environmental management (8.3.2)	MOEF, MOHRD	N.A.
C295	Introduction of intensive programs for education and training in IIT's, Universities, and professional institutions (8.3.2)	MOHRD, MOEF, US&T	N.A.
C296	Environmental education at the school level including training of teachers (8.3.2)	MOHRD, MOEF	N.A.
C297	Raise public awareness and involvement in environmental activities and issues (8.4)	MOEF, MOHRD, MOI&B	None
C298	Promote people's participation in environmental activities and conservation of natural resources (8.4)	MOEF	None

C299	Develop environmental education resource material (8.4)	MOEF, MOHRD	N.A.
C300	Strengthen use of communication media, both modern and traditional (8.4)	MOEF, MOHRD, MORD, MOI&B	N.A.
C301	Strengthen existing Environmental Educational centres (8.4)	MOEF	N.A.
C302	Develop network of infrastructure for environmental education (8.4)	MOEF, MOHRD	N.A.
C303	Develop orientation centres and provide education material for visitors at national parks, sanctuaries, and tiger reserves (8.4)	MOEF, MOTOUR	N.A.
C304	Develop appropriate low cost technologies using modern science, tailored to local environmental and socio-economic conditions (8.5)	MOEF, MOS&T, OTHR	N.A.
C305	Avoid displacement of local people while implementing projects (8.6.1)	PC, MOEF, MOWEL, OTHR	None
C306	Providing suitable facilities to oustees where displacement inevitable (8.6.1)	MOEF, PC, MOWEL, OTHR	None
C307	Government to formulate a comprehensive rehabilitation policy which ensures that oustees are economically better off and above poverty line after rehabilitation (8.6.2)	PC, MOEF, MOWEL, OTHR	None

C308	Build a network among NGO's (8.7.1)	MOEF, OTHR	N.A.
C309	Interface between people and government to work on community involvement (8.7.1)	MOEF, OTHR	N.A.
C310	Provide information on environmental surveillance and monitoring (8.7.1)	MOEF	None
C311	Transmit scientific and technological development to people (8.7.1)	MOEF, PC, MOS&T	NA
C312	Set up environmental information centres at the district level to generate knowledge regarding traditional and endogenous system management practises (8.7.2)	MOI&B, MOEF, OTHR	N.A.
C313	Manage and disseminate environmental information (8.7.2)	MOEF, OTHR	None
C314	Empowerment of NGO's, citizen's groups, and village level institutions to mobilise public opinion and participate in development activities (8.7.3)	MOEF, MORD, OTHR	None
C315	Strengthen managerial capacity of NGO's (8.7.4)	MOEF, MORD, OTHR	N.A.
C316	Organise training programs for NGO's on a regional basis (8.7.4)	MOEF, MORD, OTHR	N.A.
C317	Make available an advisory cell for rural NGO's in district head quarters (8.7.4)	MOEF, MORD, OTHR	N.A.
C318	Active involvement of women at the grassroots in conservation programs which are income generating and self financing and sustainable in the long run (8.8)	MOEF, MORD, OTHR	None

C319	Government Ministries/Departments to have an NGO cell or a liaison Officer for interaction with NGO's (8.8)	MOEF, OTHR	NA
C320	Policies and Programs at Centre and state level to be drawn keeping in view overall national policy considerations (8.9)	PC, MOEF, OTHR	NA

Annexure XACTION POINTS EMANATING FROM THE
NATIONAL FOREST POLICY

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F1	Maintenance of environmental stability through preservation.(2.1)	MOEF	NA
F2	Restoration of the ecological balance that has been adversely disturbed by serious depletion of the forests of the country.(2.1)	MOEF	NA
F3	Conserving the natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna.(2.1)	MOEF	NA
F4	Checking soil erosion, denudation in the catchment areas of rivers,lakes, reservoirs in the interest of soil and water conservation, for mitigating floods and droughts and for the retardation of siltation of reservoirs.(2.1)	MOEF, MOWR, MOAGRI, MORD	None
F5	To check the extension of sand-dunes in the desert areas of Rajasthan and along the coastal tracts.(2.1)	MOEF, MORD, MOAGRI	None
F6	To increase substantially the forest/tree cover in the country through massive afforestation and social forestry programmes,especially on all denuded, degraded and unproductive lands.(2.1)	MOEF, MORD	NA
F7	To meet the requirements of fuelwood,fodder,minor forest produce and small timber of the rural and tribal populations.(2.1)	MOEF, MORD	None

F8	To increase the productivity of forests to meet essential national needs.(2.1)	MOEF	NA
F9	To encourage efficient utilisation of forest produce and maximising substitution of wood.(2.1)	MOEF, MOIND, MOUD, OTHR	NA
F10	To creat a massive people's movement with the involvement of women,for acheiving these objectives and to minimise pressure on existing forests.(2.1)	MOEF, MORD	NA
F11	To ensure environmental stability and maintenance of ecological including atmospheric equilibrium.(2.2)	MOEF	NA
F12	The derivation of direct economic benefit must be subordinated to ensure environmental stability and maintenance of ecological including atmospheric equilibrium (2.2)	MOEF, MOFIN, PC	None
F13	Existing forests and forest lands should be fully protected and their productivity improved (3.1)	MOEF	NA
F14	Forest and vegetal cover should be increased rapidly on hill slopes, in catchment areas of rivers, lakes and reservoirs and ocean shores and on semi-arid, and desert tracts.(3.1)	MOEF, MOWR, MORD, MOAGRI	NA
F15	Diversion of good and productive agricultural lands to forestry should be discouraged in view of the need for increased food production (3.2)	MOEF, MOAGRI, MORD	None

F16	To conserve total biological diversity, the network of national parks, sanctuaries, biosphere reserves and other protected areas should be strengthened and extended adequately (3.3)	MOEF	NA
F17	Provision of sufficient fodder, fuel and pasture, in adjoining areas is necessary to prevent depletion of forests beyond the sustainable limit. (3.4)	MOEF, MORD	NA
F18	The programme of afforestation should be intensified with special emphasis on augmenting fuelwood production to meet the requirement of the rural people. (3.4)	MOEF, MORD	NA
F19	Minor forest produce to be protected, improved and their production enhanced with due regard to generation of employment and income. (3.5)	MOEF, MORD	NA
F20	To have a minimum of one-third of the total land area of the country under forest or tree cover. (4.1)	MOEF	None
F21	To maintain two-third of the area of the hills and mountainous regions to prevent erosion and land degradation and to ensure the stability of the fragile eco-system. (4.1)	MOEF	None
F22	A massive need based and timebound programme of afforestation and tree planting, with emphasis on fuelwood and fodder development, on all degraded and denuded lands in the country, whether forest or non-forest land. (4.2.1)	MOEF, MORD, MOAGRI	NA

F23	It is necessary to encourage the planting of trees alongside of road, railway lines, rivers and streams and canals, and on other unutilised lands under State/corporate, institutional or private ownership (4.2.2)	MOEF, OTHR	NA
F24	Green belts should be raised in urban/industrial areas as well as in arid tracts. (4.2.2)	MOEF, MOUD, MOIND, MORD	NA
F25	Village and community lands, not required for other productive uses, should be taken up for the development of trees, crops and fodder resources. (4.2.3)	MOEF, MOAGRI, MORD	NA
F26	Technical assistance and other inputs necessary for initiating such programmes should be provided by the Government. (4.2.3)	MOEF, MOAGRI, MOS&T	NA
F27	The revenues generated through such programmes should belong to the panchayats where the lands are vested in them and should be shared with the local communities in order to provide an incentive to them. (4.2.3)	MOEF, MOFIN, MORD	None
F28	The vesting, in individuals from the weaker sections (such as landless labour, small and marginal farmers, scheduled castes, tribals, women) of certain ownership rights over trees, could be considered, subject to appropriate regulations. (4.2.3)	MOEF, MORD	None
F29	Beneficiaries would be entitled to usufruct and in turn be responsible for their security and maintenance. (4.2.3)	MOEF, MORD	NA

F30	Land laws should be modified wherever necessary so as to facilitate and motivate individuals and institutions to undertake tree-farming and grow fodder plants, grasses and legumes on their own land (4.2.4).	MOEF, MORD	NA
F31	Wherever possible, degraded land should be made available for undertaking tree-farming and growing fodder plants, grasses and legumes on lease or on the basis of a tree-patta scheme.(4.2.4)	MOEF, MORD	NA
F32	Leasing of the land should be subject to the land grant rules and land ceiling laws.(4.2.4)	MOEF, MORD	NA
F33	Appropriate regulations should govern the felling of trees on private holding. (4.2.4)	MOEF, MORD	Tree felling regulations
F34	Severe Restriction of schemes and projects which interfere with forests that clothe steep slopes, catchments of rivers, lakes, and reservoirs, geologically unstable terrain and such other ecologically sensitive areas. (4.3.1)	MOEF, OTHR	None
F35	Tropical rain/moist forests, should be totally safeguarded. (4.3.1)	MOEF	None
F36	No forest should be permitted to be worked without the Government having approved the management plan. (4.3.2)	MOEF	IFA
F37	It is necessary to enhance forest cover and productivity of the forests through the application of scientific and technical inputs. (4.3.3)	MOEF, MOAGRI, MOS&T	NA

F38	Production forestry programmes, should also be oriented to narrowing the increasing gap between demand and supply of fuelwood. (4.3.3)	MOEF, MOAGRI, MORD	NA
F39	Production forestry programme should not entail clear-felling of adequately stocked natural forests. (4.3.3)	MOEF	FCA
F40	No Introduction of exotic species through public or private sources, unless long-term scientific trials undertaken by specialists have established that they are suitable and have no adverse impact on native vegetation and environment. (4.3.3)	MOEF	None
F41	The rights and concessions, including grazing, should always remain related to the carrying capacity of forests. (4.3.4.1)	MOEF	NA
F42	The capacity itself should be optimised by increased investment, silvicultural research and development of the area. (4.3.4.1)	MOEF, MOAGRI, MOS&T	NA
F43	Stall-feeding of cattle should be encouraged. (4.3.4.1)	MOEF, MORD	NA
F44	Requirements of the community, which cannot be met by the rights and concessions so determined, should be met by development of social forestry outside the reserved forests. (4.3.4.1)	MOEF, MORD	NA

F45	The holders of customary rights and concessions in forest areas should be motivated to identify themselves with the protection and development of forests from which they derive benefits. (4.3.4.2)	MOEF	NA
F46	The rights and concessions from forests should primarily be for the bonafide use of the communities living within and around forest areas, specially the tribals. (4.3.4.2)	MOEF	None
F47	The rights and concessions of tribals and other poor living within and near forests should be fully protected. (4.3.4.3)	MOEF	None
F48	Their requirements of fuelwood, fodder, minor forest produce and construction timber should be the first charge on forest produce. These and substitute materials should be made available through conveniently located depots at reasonable prices. (4.3.4.3)	MOEF	None
F49	Similar consideration to given to be scheduled castes and other poor living near forest. However, these would be determined by the carrying capacity of the forests. (4.3.4.4)	MOEF	None
F50	Substitution of wood needs to be taken recourse to relieve existing pressures on forests. (4.3.5)	MOEF, MOIND, MOS&T, MOUD	NA
F51	Fuel wood need to substituted as far as practicable with alternate sources like bio-gas, LPG and solar energy. (4.3.5)	MOEF, MOFOW	NA

F52	Fuel-efficient Chulhas as a measure of conservation of fuelwood need to be popularised in rural areas.	MOPOW	NA
F53	Diversion of forest land for any non-forest purpose should be subject to the most careful examinations by specialists from the standpoint of social and environmental costs and benefits. (4.4.1)	MOEF	FCA
F54	Construction of dams and reservoirs, mining and industrial development and expansion of agriculture should be consistent with the needs for conservation of trees and forests. (4.4.1)	MOEF, MOPOW, MOIND, MOMIN, MOAGRI	None
F55	Projects which involve such diversion should at least provide in their investment budget, funds for regeneration/compensatory afforestation. (4.4.1)	MOEF, MOPOW, MOMIN, MOIND, MOAGRI	FCA
F56	Beneficiaries who are allowed mining and quarrying in forest land and in land covered by trees should be required to repair and re-vegetate the area in accordance with established forestry practices. (4.4.2)	MOEF, MOMIN	FCA for forests : None for others
F57	No mining lease should be granted to any party, private or public without a proper mine management plan appraised from the environmental angle and enforced by adequate machinery. (4.4.2)	MOEF, MOMIN	None
F58	Forest management plan should include special care of the needs of wildlife conservation. (4.5)	MOEF	NA

F59	It is specially essential to provide for "corridors" linking the protected areas in order to maintain genetic continuity between artificially separated sub-section of migrant wildlife. (4.5)	MOEF	NA
F60	Primary tasks of all agencies including the forest development corporations should be to associate the tribal people closely in the protection, regeneration and development of forests and provide employment to people living in and around the forest.(4.6)	MOEF, MORD	NA
F61	Contractors should be replaced by institutions such as tribal cooperatives, labour cooperatives, government corporations to put an end to illegal cutting and removal of trees (4.6)	MOEF	NA
F62	To protect, regenerate and optimize collection of minor forest produce along with institutional arrangements for the marketing. (4.6)	MOEF, MORD	NA
F63	Development of forest villages on par with revenue villages. (4.6)	MOEF, MORD, OTHR	None
F64	Family oriented schemes for improving the status of the tribal beneficiaries. (4.6)	MOEF, MORD, MOSW	NA
F65	Undertaking integrated area development programmes to meet the needs of the tribal economy in and around the forest areas (4.6)	MOEF, MORD	NA
F66	Alternative avenues of income, suitably harmonised with the right landuse practices, should be devised to discourage shifting cultivation. (4.7)	MOEF, MORD, MOAGRI	NA

F67	Efforts should be made to contain shifting cultivation within the area already affected by propagating improved agricultural practices. (4.7)	MOEF, MOAGRI, MORD	None
F68	Area already damaged by such cultivation should be rehabilitated through social forestry and energy plantations. (4.7)	MOEF, MORD, MOAGRI	NA
F69	Encroachment on forest lands to be arrested and effective action taken to prevent its continuance. There should be no regularisation of existing encroachments. (4.8.1)	MOEF	IFA, FCA
F70	Special precautions should be taken during the fire season. Improved and modern management practices should be adopted to deal with forest fires (4.8.2)	MOEF	NA
F71	Grazing in forest areas should be regulated with the involvement of the community (4.8.3)	MOEF, MORD, MOAGRI	IFA
F72	Special conservation areas, young plantations and regeneration areas should be fully protected from grazing (4.8.3)	MOEF, MORD, MOAGRI	IFA
F73	Adequate grazing fees should be levied to discourage people in forest areas from maintaining large herds of non-essential livestock (4.8.3)	MOEF, MORD, MOAGRI	IFA
F74	A forest-based industry should raise the raw material needed for meeting its own requirements (4.9)	MOEF, MOIND	NA

F75	Requirements preferably met through direct relationship with individuals who grow raw material. Industry support individual with inputs like credit, technical advice and harvesting and transport services (4.9)	MOEF, MOIND	NA
F76	No forest-based enterprise, except that at the village or cottage level, should be permitted in the future unless it has been first cleared after a careful scrutiny with regard to assured availability of raw material (4.9)	MOEF, MOIND	None
F77	The fuel, fodder and timber requirements of the local population should not be sacrificed for Industrial purposes (4.9)	MOEF, MOIND, MORD	None
F78	Forest-based industries must not only provide employment to local people on priority but also involve them fully in raising trees and raw material (4.9)	MOEF, MOIND	NA
F79	Natural forests (serve as a gene pool resource and help to maintain ecological balance) will not be made available to industries for undertaking plantation and for any other activities (4.9)	MOEF	FCA
F80	Farmers (particularly small and marginal) would be encouraged to grow on marginal/degraded lands available with them wood species required for industries (4.9)	MOEF, MORD, MOIND	NA
F81	Wood species required for industries may also be grown along with fuel and fodder species on community lands not required for pasture purposes (4.9)	MOEF, MORD	NA

F82	Fuel, fodder and wood species may also be grown by forest department/corporations on degraded forests, not earmarked for natural regeneration (4.9)	MOEF	NA
F83	The practice of supply of forest produce to industry at concessional prices should cease (4.9)	MOEF, MOIND, MOFIN	None
F84	Industry should be encouraged to use alternative raw materials (4.9)	MOEF, MOIND	NA
F85	Import of wood and wood products should be liberalised (4.9)	MOEF, MOFIN	NA
F86	Forestry actions will be subject to the current policy related to land ceiling and land-laws (4.9)	MOEF, MORO	NA
F87	It is essential to inculcate in the people, a direct interest in forests, their development and conservation, and to make them conscious of the value of trees, wildlife and nature in general. Educational institutions to be involved for this (4.10)	MOEF, MOHRD, MOAGRI	NA
F88	Farmers and interested people should be provided opportunities through institutions like Krishi Vigyan Kendras, Trainers Training Centres to learn agrisilvicultural and silvicultural techniques to ensure optimum use of their land and water resources(4.10)	MOEF, MOAGRI	NA

F89	Short term extension courses and lectures should be organised in order to educate farmers. For this suitable programmes to be propagated through mass media, audiovisual and the extension machinery (4.10)	MOEF, MOAGRI, MOI&B	NA
F90	Agriculture universities and institutions dedicated to the development of forestry education should formulate curricula and courses for imparting academic education and promoting post-graduate research and profession (4.11)	MOEF, MOAGRI, MOHRD	NA
F91	Academic and professional qualification in forestry should be kept in view for recruitment to the Indian Forest Service and the State Forest Service (4.11)	MOEF, UPSC	NA
F92	Specialised and orientation courses for developing better management skills by inservice training need to be encouraged taking into account the latest development in forestry and related disciplines (4.11)	MOEF, DOP	NA
F93	Emphasis must be laid on scientific forestry research, necessitating adequate strengthening of the research base as well as new priorities for action (4.12)	MOEF, MOAGRI, MOS&T, MOHRD	NA
F94	R&D to increase the productivity of wood and other forest produce per unit area per unit time by the application of modern scientific and technological methods (4.12)	MOEF, MOAGRI, MOHRD, MOS&T	NA

F95	R&D for revegetation of barren/marginal/waste/mined lands and watershed areas (4.12)	MOEF, MOMIN, MOWR, MOS&T	NA
F96	R&D for effective conservation and management of existing forest resources (mainly natural forest eco-systems) (4.12)	MOEF, MOAGRI, MOS&T	NA
F97	Research related to social forestry for rural/tribal development (4.12)	MOEF, MOIND, MOS&T, MORD	NA
F98	Development of substitutes to replace wood and wood products (4.12)	MOEF, MOIND, MOS&T	NA
F99	Research related to wildlife and management of national parks and sanctuaries (4.12)	MOEF, MOAGRI	NA
F100	Government policies in personnel management for professional forests and forest scientists should aim at enhancing professional competence, status and retaining their qualified and motivated personnel (4.13)	MOEF, DOP	NA
F101	Priority needs to be accorded to completing the survey of forest resources in the country on scientific lines and to updating information (4.14)	MOEF, MOS&T, MOS	NA
F102	Periodical collection, collation and publication of reliable data on relevant aspects of forests management needs to be improved with recourse to modern technology and equipment (4.14)	MOEF, MOS&T, MOAGRI	None

F103	Appropriate legislation should be undertaken, supported by adequate infrastructure, at the Centre and State levels in order to implement the Policy effectively (4.15)	MOEF	NA
F104	There should be investment of financial and other resources on a substantial scale or achieving the objectives of the policy (4.16)	MOFIN, PC	NA

Annexure XI

ACTION POINTS EMANATING FROM THE POLICY STATEMENT FOR ABATEMENT OF POLLUTION

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P1	Development of a positive attitude on the part of every one in society. (3.1)	MOEF, MOHRD,	NA
P2	Integration of environmental and economic aspects in development planning. (3.2)	MOEF, PC, OTHR	None
P3	Integration of environmental consideration into decision making at all levels. (3.3)	MOEF, PC	None
P4	Laying stress on preventive aspects of pollution abatement. (3.2)	MOEF, OTHR	WA, AA
P5	Promotion of technological inputs to reduce industrial pollutants. (3.2)	MOEF, MOS&T, OTHR	WA, AA
P6	Relying on public cooperation to respond to challenges for securing a clean environment. (3.2)	MOEF, MOI&B, OTHR	None
P7	To Prevent pollution at sources. (3.3)	MOEF, OTHR	WA, AA
P8	Development and application of the best available practicable technical solutions. (3.3)	MOEF, MOS&T	None
P9	To ensure payment for the pollution and control management by the polluter. (3.3)	MOEF	WA, AA
P10	To focus protection on heavily polluted areas and river stretches. (3.3)	MOEF	WA, AA

P11	To involve the public in decision making. (3.3)	MOEF	None
P12	Mechanism to be evolved for reduction of local concentration of pollutants in Complex Industrial sites. (4.1)	MOEF	None
P13	Strategies to be developed for high pollution load areas to counteract accumulative effect of various types of pollutants. (4.1)	MOEF	None
P14	Targeting existing units in high pollution load areas for effective action. (4.1)	MOEF	WA, AA
P15	New units (In high pollution load areas) will be required to comply with location specific standards for stringent environmental quality objectives. (4.1)	MOEF	WA, AA
P16	Inclusion of matching waste generators with waste buyers for solving waste disposal in New units. (4.1)	MOEF, MOPOW, MOIND, MOUD	None
P17	Setting up of Industrial estates which will include pollution abatement measures as an essential component of the infrastructure. (4.2)	MOEF, MOIND	None
P18	Clusters of small Industrial units in rural areas should also include pollution abatement measures as an essential component of infrastructure. (4.2)	MOEF, MOIND, MORO	None
P19	Setting up of Biological waste water treatment plants, on land disposal using suitable vegetative cover and resource recovery technologies. (4.3)	MOEF, MOS&T, DOBIO	None

P20	Restriction of mining operations in ecologically fragile areas (4.4)	MOEF, MOMIN	None
P21	Every mining project should have a mining plan including an environmental management plan (4.4)	MOEF, MOMIN	None
P22	A time bound reclamation programme for controlling the environmental damage and for restoration of mined areas. (4.4)	MOEF, MOMIN	None
P23	Common effluent treatment plant scheme to be extended for providing necessary technical support. (5.1)	MOEF, MOS&T	NA
P24	Assistance to be provided to small scale industrial units (particularly those located in rural areas) to aid the implementation of pollution control measures (5.2)	MOEF, MOIND, MORD	NA
P25	Promoting the development of cleaner technologies (5.2)	MOEF, MOIND, MOS&T	NA
P26	Adoption of cleaner technologies including environmentally friendly biotechnology. (5.2)	MOEF, MOIND, MOS&T, MOUD, MOPOW, DOBIO	None
P27	Present norms/standards to be revised to lay down mass based standards (6.1)	MOEF	None
P28	To set specific limits to encourage the minimisation of waste. (6.1)	MOEF	WA, AA
P29	To promote recycling and reuse of materials. (6.1)	MOEF, OTHR	None
P30	To promote conservation of natural resources, particularly water. (6.1)	MOEF, MOUD, MOWATR, MOIND, MOPOW	Water (Clean) Act

P31	Standards (not only a regulatory tool) to be used to ensure promotion of technological upgradation to prevent pollution, conserve resources & regulate waste. To ensure this codes of practice and guidelines to be evolved for specific processes(6.3)	MOEF, OTHR	None
P32	As standards will be source related the most polluting Industrial processes (specially users of toxic substances) Will require to apply the best available technological solution and should also be an instrument for technological upgradation. (6.1)	MOEF, MOS & T, MOIND, OTHR	NA
P33	Ensuring that new units conform to stricter standards (6.2)	MOEF	WA, AA
P34	New units to select technologies which produce no or low quantities of wastes. (6.2)	MOEF, OTHR	None
P35	New units to select technologies which recycle or reuse waste products. (6.2)	MOEF, OTHR	None
P36	To evolve more strict vehicle emission standards to deal with environmental hazards caused by vehicular traffic (6.2)	MOEF, MOIND, MOSTRA	Motor Vehicles and Regulations Act
P37	The Environmental effects (from production to disposal of hazardous and toxic products) to be taken into account in the regulations. (6.4)	MOEF	None
P38	To review chemicals according to level of risk and restrictions to be imposed where safer alternatives of risky chemicals have become available. (6.4)	MOEF, MOAGRI, MOIND, MOCH, MOHEA	None

P39	To supplement the standards with regulation for liability and compensation for damages in the management of hazardous waste regulation. (6.4)	MOEF	LIABILITY ACT
P40	Regulations and Remedial action in case of contamination of soil and ground water. (6.4)	MOEF, OTHR	None
P41	Setting up of special legal institutions for compensation to individuals for environmental damage (including health and environmental damage by pollution) (11.4)	MOEF	LIABILITY ACT
P42	Adequate arrangements to be made for interim relief (11.4)	MOEF	LIABILITY ACT
P43	Introducing new approaches for considering market choices in terms of reviewing the items for which excise and custom rebate are allowed. (7.2)	MOEF, MOFIN	NA
P44	Encouraging the internalisation of the cost of pollution. (7.3)	MOEF, MOFIN	
P45	Encouraging the conservation of resources (especially water) (7.3)	MOEF, MOAGRI, MOWATR, MOUD, MOIND, MOPOW	
P46	To Levy an effluent charge based on the nature and volume of releases to the environment, and the cost of treatment (7.3)	MOEF	WA, AA
P47	To provide incentive to set up treatment plants (7.3)	MOEF	NA
P48	To extend the scope of charges to emission and solid waste (7.3)	MOEF	None

P49	To use the revenues for enforcement, collective treatment facilities, promoting new investment. (7.4)	MOEF, MOFIN	NA
P50	Adoption of economic instruments according to the ease with which releases can be measured and prospective changes in technology and market structures (7.5)	MOEF, MOFIN	None
P51	To adopt a mix of regulatory and economic measures to deal with range of pollution problems. (7.5)	MOEF, MOFIN	WA, AA
P52	Integration of environmental concerns more effectively in all policy areas (sectoral ministries, state govt, local bodies, development agencies). (8.1)	MOEF, PC, OTHR	None
P53	Environment concerns need to be built in to the manner of operation of local authorities (8.1)	MOEF, PC, OTHR	None
P54	To strengthen governmental and institutional structure dealing with environmental management. (specially sectors of energy, industry, water resources, transport and agriculture (8.1)	MOEF, PC, OTHR	None
P55	To strengthen institution who develop specific programmes in regards to pollution prevention (8.1)	MOEF, MOS&T	NA
P56	Legislation to be amended to incorporate and eliminate clashes with environmental criteria. (8.2)	MOEF	NA

P57	To set up an integrated overview and organisational structure for decentralized environment impact assessments and environmental law enforcement based on cooperation with local authorities. (8.2)	MOEF, PC	NA
P58	To formulate a long term policy for pesticide use which includes introduction of environmental acceptable pesticide (Biopesticide and non persistent bio degradable ones). (8.3)	MOEF, MOAGRI, MOHEA, MOIND, MOCH	NA
P59	Integrated pest management together with the phasing out of the proven harmful toxic and persistent ones. (8.3)	MOEF, MOAGRI, MOHEA, MOIND	NA
P60	To formulate a similar policy for fertilizer use (8.3)	MOEF, MOAGRI, MOHEA, MOIND	NA
P61	To fully protect existing forests and natural vegetation (8.4)	MOEF	None
P62	To increase and restore forest and vegetal cover (where ever possible) (8.4)	MOEF	NA
P63	To encourage planting of trees (8.4)	MOEF	NA
P64	To raise green belt areas in urban and industrial areas (8.4)	MOEF, MOIND, MOUD	None
P65	To include a chapter on the action taken up to follow up the policy statement in the Annual Administration reports of the Ministries (8.5)	MOEF, OTHR	

P66	Procedure of an environmental statement to be introduced in local bodies, statutory authorities and public limited companies to evaluate the effect of the policies , operations and activities on environment. (9.1)	MOEF, OTHR	
P67	Procedure of an environmental statement to be introduced in local bodies, statutory authorities and public limited companies for compliance with standards and the generation and recycling of waste. (9.1)	MOEF, OTHR	
P68	To collect and integrate environment, economic and health data for determining the status and developing a concise set of environmental indicators for monitoring the effects of pollution (10.1)	MOEF, MOHEA	None
P69	To provide information and access to public about what is happening to the environment. (10.1)	MOEF	None
P70	To educate citizens about environmental risks, economic and health dangers of resource degradation and real cost of natural resource (11.1)	MOEF	NA
P71	To publish periodically information on environment. (11.1)	MOEF	None
P72	To set up a system of certification of goods that are "environmentally friendly" to encourage environmental consciousness and make available information to consumers. (11.3)	MOEF	

P73	Greater emphasis to be placed on promoting awareness, undertaking and competence in schools, colleges, training institutions. (11.5)	MOEF, MOHRD	
P74	To encourage and support the commitment and work of responsible NGOs and individuals (11.2)	MOEF	NA
P75	To encourage NGOs and professionals to be more active in environmental training and building awareness (11.5)	MOEF	NA

INSTITUTIONAL STRUCTURES

AND

ENVIRONMENTAL MANAGEMENT

APPENDICES

Table 1: ACTION POINTS EMANATING FROM THE NATIONAL FOREST POLICY

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F1	Maintenance of environmental stability through preservation.(2.1)	MOEF	NA
F2	Restoration of the ecological balance that has been adversely disturbed by serious depletion of the forests of the country.(2.1)	MOEF	NA
F3	Conserving the natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna.(2.1)	MOEF	NA
F4	Checking soil erosion, denudation in the catchment areas of rivers,lakes, reservoirs in the interest of soil and water conservation, for mitigating floods and droughts and for the retardation of siltation of reservoirs.(2.1)	MOEF, MOWR, MOAGRI, MORD	None
F5	To check the extension of sand-dunes in the desert areas of Rajasthan and along the coastal tracts.(2.1)	MOEF, MORD, MOAGRI	None
F6	To increase substantially the forest/tree cover in the country through massive afforestation and social forestry programmes,especially on all denuded, degraded and unproductive lands.(2.1)	MOEF, MORD	NA
F7	To meet the requirements of fuelwood,fodder,minor forest produce and small timber of the rural and tribal populations.(2.1)	MOEF, MORD	None

Table 1 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F8	To increase the productivity of forests to meet essential national needs.(2.1)	MOEF	NA
F9	To encourage efficient utilisation of forest produce and maximising substitution of wood.(2.1)	MOEF, MOIND, MOUD, OTHR	NA
F10	To create a massive people's movement with the involvement of women,for achieving these objectives and to minimise pressure on existing forests.(2.1)	MOEF, MORD	NA
F11	To ensure environmental stability and maintenance of ecological including atmospheric equilibrium.(2.2)	MOEF	NA
F12	The derivation of direct economic benefit must be subordinated to ensure environmental stability and maintenance of ecological including atmospheric equilibrium (2.2)	MOEF, MOFIN, PC	None
F13	Existing forests and forest lands should be fully protected and their productivity improved (3.1)	MOEF	NA
F14	Forest and vegetal cover should be increased rapidly on hill slopes, in catchment areas of rivers, lakes and reservoirs and ocean shores and on semi-arid, and desert tracts.(3.1)	MOEF, MOWR, MORD, MOAGRI	NA
F15	Diversion of good and productive agricultural lands to forestry should be discouraged in view of the need for increased food production (3.2)	MOEF, MOAGRI, MORD	None

Table 1 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F16	To conserve total biological diversity, the network of national parks, sanctuaries, biosphere reserves and other protected areas should be strengthened and extended adequately (3.3)	MOEF	NA
F17	Provision of sufficient fodder, fuel and pasture, in adjoining areas is necessary to prevent depletion of forests beyond the sustainable limit. (3.4)	MOEF, MORD	NA
F18	The programme of afforestation should be intensified with special emphasis on augmenting fuelwood production to meet the requirement of the rural people. (3.4)	MOEF, MORD	NA
F19	Minor forest produce to be protected, improved and their production enhanced with due regard to generation of employment and income. (3.5)	MOEF, MORD	NA
F20	To have a minimum of one-third of the total land area of the country under forest or tree cover. (4.1)	MOEF	None
F21	To maintain two-third of the area of the hills and mountainous regions to prevent erosion and land degradation and to ensure the stability of the fragile eco-system. (4.1)	MOEF	None

Table 1 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F22	A massive need based and timebound programme of afforestation and tree planting, with emphasis on fuelwood and fodder development, on all degraded and denuded lands in the country, whether forest or non-forest land. (4.2.1)	MOEF, MORD, MOAGRI	NA
F23	It is necessary to encourage the planting of trees alongside of road, railway lines, rivers and streams and canals, and on other unutilised lands under State/corporate, institutional or private ownership (4.2.2)	MOEF, OTHR	NA
F24	Green belts should be raised in urban/industrial areas as well as in arid tracts. (4.2.2)	MOEF, MOUD, MOIND, MORD	NA
F25	Village and community lands, not required for other productive uses, should be taken up for the development of trees, crops and fodder resources. (4.2.3)	MOEF, MOAGRI, MORD	NA
F26	Technical assistance and other inputs necessary for initiating such programmes should be provided by the Government. (4.2.3)	MOEF, MOAGRI, MOS&T	NA
F27	The revenues generated through such programmes should belong to the panchayats where the lands are vested in them and should be shared with the local communities in order to provide an incentive to them. (4.2.3)	MOEF, MOFIN, MORD	None

Table 1 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F28	The vesting, in individuals from the weaker sections (such as landless labour, small and marginal farmers, scheduled castes, tribals, women) of certain ownership rights over trees, could be considered, subject to appropriate regulations. (4.2.3)	MOEF, MORD	None
F29	Beneficiaries would be entitled to usufruct and in turn be responsible for their security and maintenance. (4.2.3)	MOEF, MORD	NA
F30	Land laws should be modified wherever necessary so as to facilitate and motivate individuals and institutions to undertake tree-farming and grow fodder plants, grasses and legumes on their own land (4.2.4)	MOEF, MORD	NA
F31	Wherever possible, degraded land should be made available for undertaking tree-farming and growing fodder plants, grasses and legumes on lease or on the basis of a tree-patta scheme. (4.2.4)	MOEF, MORD	NA
F32	Leasing of the land should be subject to the land grant rules and land ceiling laws. (4.2.4)	MOEF, MORD	NA
F33	Appropriate regulations should govern the felling of trees on private holding. (4.2.4)	MOEF, MORD	Tree felling regulations

Table 1 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F34	Severe Restriction of schemes and projects which interfere with forests that clothe steep slopes, catchments of rivers, lakes, and reservoirs, geologically unstable terrain and such other ecologically sensitive areas. (4.3.1)	MOEF, OTHR	None
F35	Tropical rain/moist forests, should be totally safeguarded. (4.3.1)	MOEF	None
F36	No forest should be permitted to be worked without the Government having approved the management plan. (4.3.2)	MOEF	IFA
F37	It is necessary to enhance forest cover and productivity of the forests through the application of scientific and technical inputs. (4.3.3)	MOEF, MOAGRI, MOS&T	NA
F38	Production forestry programmes, should also be oriented to narrowing the increasing gap between demand and supply of fuelwood. (4.3.3)	MOEF, MOAGRI, MORD	NA
F39	Production forestry programme should not entail clear-felling of adequately stocked natural forests. (4.3.3)	MOEF	FCA
F40	No Introduction of exotic species through public or private sources, unless long-term scientific trials undertaken by specialists have established that they are suitable and have no adverse impact on native vegetation and environment. (4.3.3)	MOEF	None

Table 1 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F41	The rights and concessions, including grazing, should always remain related to the carrying capacity of forests. (4.3.4.1)	MOEF	NA
F42	The capacity itself should be optimised by increased investment, silvicultural research and development of the area. (4.3.4.1)	MOEF, MOAGRI, MOS&T	NA
F43	Stall-feeding of cattle should be encouraged. (4.3.4.1)	MOEF, MORD	NA
F44	Requirements of the community, which cannot be met by the rights and concessions so determined, should be met by development of social forestry outside the reserved forests. (4.3.4.1)	MOEF, MORD	NA
F45	The holders of customary rights and concessions in forest areas should be motivated to identify themselves with the protection and development of forests from which they derive benefits. (4.3.4.2)	MOEF	NA
F46	The rights and concessions from forests should primarily be for the bonafide use of the communities living within and around forest areas, specially the tribals. (4.3.4.2)	MOEF	None
F47	The rights and concessions of tribals and other poor living within and near forests should be fully protected. (4.3.4.3)	MOEF	None

Table 1 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F48	Their requirements of fuelwood, fodder, minor forest produce and construction timber should be the first charge on forest produce. These and substitute materials should be made available through conveniently located depots at reasonable prices. (4.3.4.3)	MOEF	None
F49	Similar consideration to given to be scheduled castes and other poor living near forest. However, these would be determined by the carrying capacity of the forests. (4.3.4.4)	MOEF	None
F50	Substitution of wood needs to be taken recourse to relieve existing pressures on forests. (4.3.5)	MOEF, MOIND, MOS&T, MOUD	NA
F51	Fuel wood need to substituted as far as practicable with alternate sources like bio-gas, LPG and solar energy. (4.3.5)	MOEF, MOPOW	NA
F52	Fuel-efficient Chulhas as a measure of conservation of fuelwood need to be popularised in rural areas.	MOPOW	NA
F53	Diversion of forest land for any non-forest purpose should be subject to the most careful examinations by specialists from the standpoint of social and environmental costs and benefits. (4.4.1)	MOEF	FCA

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F54	Construction of dams and reservoirs, mining and industrial development and expansion of agriculture should be consistent with the needs for conservation of trees and forests. (4.4.1)	MOEF, MOPOW, MOIND, MOMIN, MOAGRI	None
F55	Projects which involve such diversion should at least provide in their investment budget, funds for regeneration/compensatory afforestation. (4.4.1)	MOEF, MOPOW, MOMIN, MOIND, MOAGRI	FCA
F56	Beneficiaries who are allowed mining and quarrying in forest land and in land covered by trees should be required to repair and re-vegetate the area in accordance with established forestry practices. (4.4.2)	MOEF, MOMIN	FCA for forests : None for others
F57	No mining lease should be granted to any party, private or public without a proper mine management plan appraised from the environmental angle and enforced by adequate machinery. (4.4.2)	MOEF, MOMIN	None
F58	Forest management plans should include special care of the needs of wildlife conservation. (4.5)	MOEF	NA
F59	It is specially essential to provide for "corridors" linking the protected areas in order to maintain genetic continuity between artificially separated sub-section of migrant wildlife. (4.5)	MOEF	NA

Table 1 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F60	Primary tasks of all agencies including the forest development corporations should be to associate the tribal people closely in the protection, regeneration and development of forests and provide employment to people living in and around the forest. (4.6)	MOEF, MORD	NA
F61	Contractors should be replaced by institutions such as tribal cooperatives, labour cooperatives, government corporations to put an end to illegal cutting and removal of trees (4.6)	MOEF	NA
F62	To protect, regenerate and optimize collection of minor forest produce along with institutional arrangements for the marketing. (4.6)	MOEF, MORD	NA
F63	Development of forest villages on par with revenue villages. (4.6)	MOEF, MORD, OTHR	None
F64	Family oriented schemes for improving the status of the tribal beneficiaries. (4.6)	MOEF, MORD, MOSW	NA
F65	Undertaking integrated area development programmes to meet the needs of the tribal economy in and around the forest areas (4.6)	MOEF, MORD	NA
F66	Alternative avenues of income, suitably harmonised with the right landuse practices, should be devised to discourage shifting cultivation. (4.7)	MOEF, MORD, MOAGRI	NA

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F67	Efforts should be made to contain shifting cultivation within the area already affected by propagating improved agricultural practices. (4.7)	MOEF, MOAGRI, MORD	None
F68	Area already damaged by such cultivation should be rehabilitated through social forestry and energy plantations. (4.7)	MOEF, MORD, MOAGRI	NA
F69	Encroachment on forest lands to be arrested and effective action taken to prevent its continuance. There should be no regularisation of existing encroachments. (4.8.1)	MOEF	IFA, FCA
F70	Special precautions should be taken during the fire season. Improved and modern management practices should be adopted to deal with forest fires (4.8.2)	MOEF	NA
F71	Grazing in forest areas should be regulated with the involvement of the community (4.8.3)	MOEF, MORD, MOAGRI	IFA
F72	Special conservation areas, young plantations and regeneration areas should be fully protected from grazing (4.8.3)	MOEF, MORD, MOAGRI	IFA
F73	Adequate grazing fees should be levied to discourage people in forest areas from maintaining large herds of non-essential livestock (4.8.3)	MOEF, MORD, MOAGRI	IFA

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F74	A forest-based industry should raise the raw material needed for meeting its own requirements (4.9)	MOEF, MOIND	NA
F75	Requirements preferably met through direct relationship with individuals who grow raw material. Industry support individual with inputs like credit, technical advice and harvesting and transport services (4.9)	MOEF, MOIND	NA
F76	No forest-based enterprise, except that at the village or cottage level, should be permitted in the future unless it has been first cleared after a careful scrutiny with regard to assured availability of raw material (4.9)	MOEF, MOIND	None
F77	The fuel, fodder and timber requirements of the local population should not be sacrificed for Industrial purposes (4.9)	MOEF, MOIND, MORD	None
F78	Forest-based industries must not only provide employment to local people on priority but also involve them fully in raising trees and raw material (4.9)	MOEF, MOIND	NA
F79	Natural forests (serve as a gene pool resource and help to maintain ecological balance) will not be made available to industries for undertaking plantation and for any other activities (4.9)	MOEF	FCA

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F80	Farmers (particularly small and marginal) would be encouraged to grow on marginal/degraded lands available with them wood species required for industries (4.9)	MOEF, MORD, MOIND	NA
F81	Wood species required for industries may also be grown along with fuel and fodder species on community lands not required for pasture purposes (4.9)	MOEF, MORD	NA
F82	Fuel, fodder and wood species may also be grown by forest department/corporations on degraded forests, not earmarked for natural regeneration (4.9)	MOEF	NA
F83	The practice of supply of forest produce to industry at concessional prices should cease (4.9)	MOEF, MOIND, MOFIN	None
F84	Industry should be encouraged to use alternative raw materials (4.9)	MOEF, MOIND	NA
F85	Import of wood and wood products should be liberalised (4.9)	MOEF, MOFIN	NA
F86	Forestry actions will be subject to the current policy related to land ceiling and land-laws (4.9)	MOEF, MORD	NA

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F87	It is essential to inculcate in the people, a direct interest in forests, their development and conservation, and to make them conscious of the value of trees, wildlife and nature in general. Educational institutions to be involved for this (4.10)	MOEF, MOHRD, MOAGRI	NA
F88	Farmers and interested people should be provided opportunities through institutions like Krishi Vigyan Kendras, Trainers Training Centres to learn agrisilvicultural and silvicultural techniques to ensure optimum use of their land and water resources(4.10)	MOEF, MOAGRI	NA
F89	Short term extension courses and lectures should be organised in order to educate farmers. For this suitable programmes to be propagated through mass media, audio-visual and the extension machinery (4.10)	MOEF, MOAGRI, MOI&B	NA
F90	Agriculture universities and institutions dedicated to the development of forestry education should formulate curricula and courses for imparting academic education and promoting post-graduate research and profession (4.11)	MOEF, MOAGRI, MOHRD	NA

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F91	Academic and professional qualification in forestry should be kept in view for recruitment to the Indian Forest Service and the State Forest Service (4.11)	MOEF, UPSC	NA
F92	Specialised and orientation courses for developing better management skills by inservice training need to be encouraged taking into account the latest development in forestry and related disciplines (4.11)	MOEF, DOP	NA
F93	Emphasis must be laid on scientific forestry research, necessitating adequate strengthening of the research base as well as new priorities for action (4.12)	MOEF, MOAGRI, MOS&T, MOHRD	NA
F94	R&D to increase the productivity of wood and other forest produce per unit area per unit time by the application of modern scientific and technological methods (4.12)	MOEF, MOAGRI, MOHRD, MOS&T	NA
F95	R&D for revegetation of barren/marginal/waste/mined lands and watershed areas (4.12)	MOEF, MOMIN, MOWR, MOS&T	NA
F96	R&D for effective conservation and management of existing forest resources (mainly natural forest eco-systems) (4.12)	MOEF, MOAGRI, MOS&T	NA
F97	Research related to social forestry for rural/tribal development (4.12)	MOEF, MOIND, MOS&T, MORD	NA

Table 1 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
F98	Development of substitutes to replace wood and wood products (4.12)	MOEF, MOIND, MOS&T	NA
F99	Research related to wildlife and management of national parks and sanctuaries (4.12)	MOEF, MOAGRI	NA
F100	Government policies in personnel management for professional forests and forest scientists should aim at enhancing professional competence, status and retaining their qualified and motivated personnel (4.13)	MOEF, DOP	NA
F101	Priority needs to be accorded to completing the survey of forest resources in the country on scientific lines and to updating information (4.14)	MOEF, MOS&T, MOS	NA
F102	Periodical collection, collation and publication of reliable data on relevant aspects of forests management needs to be improved with recourse to modern technology and equipment (4.14)	MOEF, MOS&T, MOAGRI	None
F103	Appropriate legislation should be undertaken, supported by adequate infrastructure, at the Centre and State levels in order to implement the Policy effectively (4.15)	MOEF	NA
F104	There should be investment of financial and other resources on a substantial scale or achieving the objectives of the policy (4.16)	MOFIN, PC	NA

Table 2: ACTION POINTS EMANATING FROM THE NATIONAL CONSERVATION STRATEGY

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C1	Redirect development to fulfill basic needs of people (4.1)	PC	None
C2	Make sustainable use of natural resources (4.1)	MOEF, PC	None
C3	Try and reach lifestyles consistent with sustainability and human dignity (4.4)	MOEF, PC	None
C4	Frame conservation strategy to integrate environment and development (4.1)	MOEF	NA
C5	Reinforce traditional Indian ethos (4.2)	NONE	NA
C6	Build a society in harmony with nature (4.2)	MOEF	None
C7	Make frugal and efficient use of resources guided by the best available scientific knowledge (4.2)	MOEF, OTHR	NA
C8	Ensure sustainable and equitable use of resources for meeting basic needs without causing damage to the environment (4.3)	MOEF, PC	NA
C9	To prevent further damage to and conserve natural and man-made heritage (4.3)	MOEF, MOHRD	Various
C10	Curtailment of consumerism (6.0)	None	None
C11	Integration and Internalisation of Environmental considerations in policies and programmes of development in various sectors (6.0)	MOEF, PC	None

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C12	Ensure equitable access to and responsibility for sustainable use of land (5.2.1.4)	MOEF, MOAGRI, MORD, PC	Some for access None for sustainable use
C13	Ensure equitable access to and responsibility for sustainable use of water (5.2.1.4)	MOEF, MOAGRI, MOPOW, MOIND, MOWR, MOUD, PC	None
C14	Use sterner legislative measures for population control (5.1.1)	MOHEA	NA
C15	Use better incentives for population control (5.1.1)	MOHEA	NA
C16	Launch time bound national campaign for population stabilisation (5.1.2)	MOHEA	NA
C17	Increase support for female education and employment (5.1.2)	MOHRD, MORD	None
C18	Increase support for social security programmes (5.1.2)	MOSW, MORD, MOAGRI	NA
C19	Provide easy access to means of family planning (5.1.2)	MOHEA	NA
C20	Provide easy access to health care facilities (5.1.2)	MOHEA	NA
C21	Added incentives (eg. taxation), for family planning (5.1.2)	MOHEA, MOFIN	NA
C22	Prevention and control of communicable diseases (5.1.2)	MOHEA	NA
C23	Prevent and control future deterioration in land (4.3)	MOEF, MOAGRI, MOMINE, MORD	
C24	Prevent and control future deterioration in water (4.3)	MOWR, MOUD, MOEF, MOIND	EPA, Water Act, Water Cess Act

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C25	Prevent and control future deterioration in air (4.3)	MOEF, MOPOW, MOIND, MOSTRA	Air Act
C26	Restoration of ecologically degraded areas (4.3)	MOEF, OTHR	None
C27	Environmental improvement in rural settlements (4.3)	MOEF, MORD	
C28	Environmental improvement in urban settlements (4.3)	MOEF, MOUD, MOIND, MOPOW, MOSTRA	
C29	Ensure correct siting of development projects (4.3)	MOEF, OTHR	None
C30	Ensure environment and productivity of coastal and marine ecosystems is protected (4.3)	MOEF, MODEF, MOAGRI, DOD	Water Act
C31	Conserve genepools, biodiversity, and other resources through environmentally sustainable development and management of ecosystems (4.3)	MOEF	WLPA, IFA
C32	Protect scenic landscapes and areas of geomorphological significance (4.3)	MOEF, OTHR	None
C33	Protect unique biomes and ecosystems (4.3)	MOEF	WLPA, IFA
C34	Protect representative biomes and ecosystems (4.3)	MOEF	WLPA, IFA
C35	Protect wildlife habitats (4.3)	MOEF	WLPA, IFA
C36	Protect heritage sites/structures and areas of cultural heritage (4.3)	MOEF, MOHRD	None

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C37	To carry out EIA of all development projects from the planning stage and integrate it with cost benefit considerations (4.4)	MOEF	None
C38	Ensure environmental clearance of all projects above a certain size (4.4)	MOEF	None
C39	Ensure environmental clearance of all projects in ecologically sensitive areas (4.4)	MOEF	None
C40	Incorporate environmental safeguards and protection measures in policies, planning, site selections, choice of technology and implementation of development projects	MOEF, PC, OTHR	None
C41	Incorporate environmental safeguards in agricultural projects (4.4)	MOEF, MOAGRI	None
C42	Incorporate environmental safeguards in Water Resource projects (4.4)	MOEF, MOWR	None
C43	Incorporate environmental safeguards of development projects in Industrial projects (4.4)	MOEF, MOIND	None
C44	Incorporate environmental safeguards in Mineral Extraction and Processing projects (4.4)	MOEF, MOMINE	None
C45	Incorporate environmental safeguards in Energy projects (4.4)	MOEF, MOPOW	None

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C46	Incorporate environmental safeguards in forestry projects (4.4)	MOEF	IFA, FCA, WLPA
C47	Incorporate environmental safeguards in Transport projects (4.4)	MOEF, MOTRAN	None
C48	Incorporate environmental safeguards in Human Settlements projects (4.4)	MOEF, MOUD	None
C49	Encourage R&D of environmentally compatible technologies (4.4)	MOEF, MOS&T, MOIND, MOPOW	NA
C50	Encourage adoption of environmentally compatible technologies (4.4)	MOEF, OTHR	
C51	Promote application of modern science and technology for conservation (4.4)	MOEF, OTHR	NA
C52	Promote application of modern science and technology for bridging gaps between supply and demand of natural resources (4.4)	MOEF, OTHR	NA
C53	Promote application of modern technology for control and monitoring of natural resources (4.4)	MOEF, OTHR	NA
C54	Elicit and ensure people's participation in programmes for environmental improvement (4.4)	MOEF	None

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C55	Elicit and ensure people's participation in integration of environmental concerns in planning and implementing development programmes (4.4)	MOEF, PC, OTHR	None
C56	Create environmental consciousness through education and mass awareness (4.4)	MOEF, MOHRD, MOI&E	NA
C57	Aim at moderation of the process of demand unleashed by development (4.4)	PC, OTHR	None
C58	Recycle waste materials and natural resources (4.4)	MOEF, OTHR	None
C59	Conserve energy (4.4)	MOPOW, OTHR	None
C60	Conserve use of natural resources in industrial products (4.4)	MOEF, MOIND	None
C61	Develop appropriate organisational structures for environmental management (4.4)	PC, MOEF	WLPA, Air Act, Water Act and others
C62	Develop a pool of professional manpower for environmental management (4.4)	MOEF, MOHRD, Dept. of Personnel & Training, MOS&T	NA
C63	Effectively implement laws and regulations for environmental protection through strengthening the requisite enforcement machinery (4.4)	PC, MOEF	NA
C64	Have a comprehensive program for population control (5.1.1)	MOHEA	NA
C65	Environmental sanitation (5.1.2)	MOEF, MOHEA, MOUD, MORD	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C66	Adopt decentralised renewable energy devices with special care for women's health (5.1.2)	MOPOW	None
C67	Adopt an integrated land and water management approach (5.2.1.1)	MOEF, PC, MOAGRI, MORD, MOWR	None
C68	Considering land and water use together in the context of droughts and floods (5.2.1.3)	MOEF, PC, MOAGRI, MORD, MOWR	None
C69	Amelioration of water-logged lands and salt affected lands (5.2.1.2)	MOAGRI, MOWR, MORD, MOEF	NA
C70	Adoption of command area development approach for all irrigation projects (6.1.2) (5.2.1.2)	MOEF, MOAGRI, MOWR	NA
C71	Measures for provision of drainage in irrigation projects to prevent water logging and leaching (6.1.2)	MOEF, MOAGRI, MOWR	NA
C72	Protection of good agricultural land against diversion to urban and other uses (5.2.1.2) (6.1.1)	MOEF, MOAGRI, MORD, MOUD	None
C73	Prevention of land fragmentation (5.2.1.2)	MOAGRI, MOUD, MORD	
C74	Maintenance of sustained productivity of soil (5.2.1.2)	MOAGRI, MORD, MOEF	None
C75	Conservation of lands with forests and vegetal cover (5.2.1.2)	MOEF, OTHR	IFA, FCA, WLPA
C76	Water conservation and discipline on use of water in households, agriculture, and industry (5.2.1.3)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	Water Cess Act

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C77	Appropriate recycling of water (5.2.1.3)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	None
C78	Measures for water conservation (5.2.1.4)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	None
C79	Recycling and optimal conjunctive use of surface water (5.2.1.4)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	None
C80	Recycling and optimal conjunctive use of ground water (5.2.1.4)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	None
C81	Evolving cost effective and efficient methods of water conservation and water use (6.1.1)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	None
C82	Measures for increasing the efficiency of water use (6.1.2)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	None
C83	Measures for increasing the efficiency of water conservation (6.1.2)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	None
C84	Measures for increasing the efficiency of water recycling (6.1.2)	MOEF, MORD, MOUD, MOWR, MOIND, MOAGRI	None
C85	Classification, zoning, and apportionment of land for designated uses on the basis of its capabilities and environmental considerations (5.2.1.4)	PC, MOAGRI, MORD, MOUD, MOEF, MOIND	None
C86	Ensuring land for different uses based upon land capability and land productivity (6.1.1)	PC, MOAGRI, MORD, MOUD, MOEF, MOIND	None
C87	Enactment of laws for appropriate land use (5.2.1.4)	MOEF, MOAGRI, MORD	NA
C88	Protection of land near water bodies (5.2.1.4)	MOEF, MOWR	None

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C89	Micro level planning to develop appropriate methodology and implementation of action plans with involvement of people (5.2.1.4)	MOEF, MOAGRI, MOWR, MORD, PC	None
C90	Countrywide campaign to minimise soil and run-off losses (5.2.1.4)	MOEF, MOAGRI, MORD, MOWR	NA
C91	To make the minimisation of soil and run-off loss the specific charge of project authorities in all irrigation, power, road, and agricultural projects (5.2.1.4)	MOEF, MOWR, MOAGRI, MOPOW, MOSTRA	None
C92	Watershed management through catchment treatment of drainage and protection of vegetal cover (6.1.2)	MOEF, MOWR, MOAGRI, MOPOW, MORD	None
C93	Measures to prevent siltation in an integrated manner (6.1.2)	MOEF, MOWR, MOAGRI, MOPOW, MORD	None
C94	Revival of traditional water management systems and development of alternate irrigation systems such as harvesting and conservation of run-off water (6.1.2)	MOEF, MOWR, MOAGRI, MORD	NA
C95	Restoration and reclamation of degraded areas (5.2.1.4)	MOEF, OTHR	None
C96	Measures for preventing wind erosion in desert areas (5.2.1.4)	MOEF, MORD, MOAGRI	None
C97	Development of agro-silvipastural techniques with reference to hilly areas (5.2.1.4)	MOEF, MOAGRI, MORD	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C98	Development of agro-silvipastoral techniques with reference to arid and semi-arid zones (5.2.1.4)	MOEF, MOAGRI, MORD	NA
C99	Building network for assessment and monitoring of soil quality (5.2.1.4)	MOAGRI, MOEF	None.
C100	Building network for assessment and monitoring of water [surface and ground water] quality (5.2.1.4)	MOWR, MOEF	WA
C101	Legislation to check over exploitation of surface water (5.2.1.4)	MOEF, MOWR, MOAGRI	NA
C102	Legislation to check over exploitation of ground water (5.2.1.4)	MOEF, MOWR, MOAGRI	NA
C103	Conservation of wetlands (5.2.1.4)	MOEF, MOWR	None
C104	Encourage and improve traditional methods of rain water harvesting and storage (5.2.1.4)	MOEF, MOWR, MOAGRI, MORD	None
C105	Prevention and control of pollution due to disposal of solid wastes, effluents, and hazardous substances (5.2.1.4)	MOEF, OTHR	WA, AA
C106	Control pollution of waterbodies from industrial and municipal wastes (5.2.1.4)	MOEF, MOIND, MOUD	WA
C107	Classification and zoning for maintaining the quality of waterbodies (5.2.1.4)	MOEF, MOWR	None
C108	Regulations for maintaining the quality of waterbodies (5.2.1.4)	MOEF, MOWR	WA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C109	Adoption of low cost sanitation technology (5.2.1.4)	MOEF, MOHEA, MORD, MOWR	NA
C110	Use of clean fuels (5.2.2.1)	MOEF, OTHR	None
C111	Use of clean technologies (5.2.2.1)	MOEF, OTHR	None
C112	Use of energy efficient devices (5.2.2.1)	MOEF, OTHR	None
C113	Use of air and noise pollution control systems (5.2.2.1)	MOEF, OTHR	AA for air None for noise
C114	Setting up of source specific and area wise air quality standards (5.2.2.1)	MOEF	AA
C115	Time bound plans to prevent and control pollution (5.2.2.1)	MOEF, OTHR	AA
C116	Location of projects to minimise the adverse impact on people and environment (5.2.2.1)	MOEF, OTHR	None
C117	Incentives for environmentally benign substitutes and technologies for energy conservation (5.2.2.1)	MOEF, OTHR	NA
C118	Raising of green belts with pollution tolerant species (5.2.2.1)	MOEF, OTHR	None
C119	Develop coping mechanisms for future climatic changes (5.2.2.1)	MOEF, OTHR	NA
C120	Action to control adverse impact on Indian continent due to ozone depletion (5.2.2.1)	MOEF, OTHR	NA

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C121	Devise and enforce time bound plans for saving endangered animal and plant species (5.2.3.1)	MOEF	WLPA
C122	Devise and enforce time bound plans for saving habitats of biological resources (5.2.3.1)	MOEF	WLPA, IFA, FCA
C123	Surveys and inventories of biological resources in the country (5.2.3.1)	MOEF	NA
C124	Ecological and taxonomic studies on flora and fauna (5.2.3.1)	MOEF	NA
C125	Conservation of biodiversity through a network of protected areas (5.2.3.1)	MOEF	WLPA
C126	Rehabilitation of rural poor/tribals displaced due to creation of protected areas (5.2.3.1)	MOEF	None
C127	Conservation of micro-fauna and micro-flora (5.2.3.1)	MOEF, DOBIO	None
C128	Laws and Practices for protection and sustainable use of plant and animal genetic resources (5.2.3.1)	MOEF	WLPA
C129	Protection of domesticated species of plants and animals (5.2.3.1)	MOAGRI, MORD	None
C130	Maintenance of forest corridors between protected areas (5.2.3.1)	MOEF	NA
C131	Emulation and support for protecting traditional knowledge and skills (5.2.3.1)	MOEF, MOHRD	None

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C132	[Biodiversity convention and Wildlife Action Plan] Development of methodologies to multiply, breed, and conserve threatened and endangered species through modern techniques of tissue culture and biotechnology (5.2.3.1)	MOEF, MOAGRI, DOBIO	NA
C133	Discouragement of monoculture and plantation of dominating and exotic species in areas unsuited for them (5.2.3.1)	MOEF, MOAGRI, MORD	None
C134	Restriction on introduction of exotic species of animals (5.2.3.1)	MOEF, MOAGRI	None
C135	Devising mechanisms by which local people can conserve and use resources of common lands and degraded forests (5.2.4.1)	MOEF, MORD, MOAGRI	None
C136	Encourage private individuals and institutions to regenerate and develop their wastelands (5.2.4.1)	MOEF, MORD, MOAGRI	NA
C137	Raising of fuelwood species (5.2.4.1)	MOEF, MORD, MOAGRI	NA
C138	Provision of alternatives to reduce dependence on fuelwood (5.2.4.1)	MOEF, MORD, MOS&T, MOAGRI, MOPOW	NA
C139	Provision of alternatives to reduce dependence on timber (5.2.4.1)	MOEF, MORD, MOS&T, MOAGRI, MOPOW	NA
C140	Increase production of fodder and grasses (5.2.4.1)	MOEF, MORD, MOAGRI	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C141	Raising of bamboo and species providing small timber (5.2.4.1)	MOEF, MORD, MOAGRI	NA
C142	Increase biomass to meet essential requirement of biomass based industry (5.2.4.1)	MOEF, MORD, MOAGRI, MOIND	None
C143	Promoting direct relationship between forest-based industry and farmers (5.2.4.1)	MOEF, MORD, MOAGRI, MOIND	None
C144	R&D in forestry (5.2.4.1)	MOEF, MOAGRI, MOS&T	NA
C145	Development of technologies for enhancing the productivity and efficiency of use of all biomass resources (5.2.4.1)	MOEF, MOAGRI, MOS&T	NA
C146	Build systems to enable rural artisans to sustain Biomass based crafts (5.2.4.1)	MOEF, MORD, MOS&T	None
C147	Curtailment of the supply of subsidised biomass based resources to industrial consumers (5.2.4.1)	MOEF, MOIND, MOFIN	None
C148	Shift towards use of environment friendly products and processes (6.0)	MOEF, OTHR	None
C149	Shift towards low waste generating technologies (6.0)	MOEF, OTHR	None
C150	Pricing of natural resources (6.0)	MOEF, MOFIN	None
C151	Fiscal incentives and disincentives for ensuring conservation and sustainable development (6.0)	MOEF, MOFIN	None

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C152	Development of pesticides and insecticides policy (6.1.1)	MOEF, MOS&T, MOAGRI, MOHEA	NA
C153	Development of integrated pest management and nutrient supply system (6.1.1)	MOEF, MOAGRI, MOHEA	None
C154	Development of methods of sustainable farming, especially organic and natural farming (6.1.1)	MOEF, MOAGRI	NA
C155	Efficient use of inputs with minimal degradation of environment (6.1.1)	MOEF, MOS&T, MOAGRI, MOHEA	NA
C156	Phasing out of persistent and toxic pesticides and substitution by environmentally safe pesticides (6.1.1)	MOEF, MOS&T, MOAGRI, MOHEA	NA
C157	Promotion of environmentally compatible cropping practices, biofertilisers, and biopesticides (6.1.1)	MOEF, MOS&T, MOAGRI, MOHEA	NA
C158	Incentives for cultivation of crops with high nutritive value, and lesser demands on water and energy inputs (6.1.1)	MOAGRI, MOEF, MOWR	NA
C159	Encouraging crop rotation patterns (6.1.1)	MOAGRI	NA
C160	Strengthening of local bodies like Zilla Parishads, Panchayats and Samitis to ensure effective decentralisation and optimal resource management (6.1.1)	MOEF, MORD	Proposed Panchayat Act
C161	Anticipatory programs and contingency plans for drought (6.1.1)	MOEF, MOAGRI, MORD, MOWR	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C162	Anticipatory programs and contingency plans for flood (6.1.1)	MOEF, MOWR	NA
C163	Anticipatory programs and contingency plans for climate change (6.1.1)	MOEF, OTHR	NA
C164	Priority to small projects with little environmental alteration (6.1.2)	MOEF, OTHR	NA
C165	Forming decentralised networks of small irrigation and water projects (6.1.2)	MOWR, MOEF	NA
C166	Critical assessment of irrigation projects and delivery systems to ensure optimal utilisation of water along with measures to mitigate environmental and social damage (6.1.2)	MOEF, MOWR	None
C167	Design and implementation of environmentally sustainable irrigation projects (6.1.2)	MOEF, MOWR	NA
C168	Start ongoing evaluation and monitoring of all irrigation projects (6.1.2)	MOEF, MOWR	NA
C169	Develop an animal husbandry policy (6.2)	MOAGRI, MOEF	NA
C170	Intensification of sterilisation program for livestock (6.2)	MOAGRI, MOEF	NA
C171	Improvement in genetic variability of indigenous population (6.2)	MOAGRI, MOEF	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C172	Distribution of animals like goats under the Integrated Rural Development Program strictly consistent with the availability of pasture lands (6.2)	MORD, MOEF	NA
C173	Propagation of wildlife and wildlife resources management on a sustainable basis (6.2)	MOEF	WLPA
C174	Selective breeding of animals used for draught power to conserve fuel (6.2)	MOAGRI, MORD, MOPOW	NA
C175	Promotion of stall feeding and rotational grazing (6.2)	MOEF, MOAGRI, MORD	NA
C176	Restoration and protection of grazing lands (6.2)	MOEF, MOAGRI, MORD	None
C177	Involvement of local people in the policy planning on pasture lands and stall feeding (6.2)	MOEF, MOAGRI, MORD	NA
C178	Incentive for growing fodder crops and establishment of fodder banks (6.2)	MOEF, MOAGRI, MORD	NA
C179	Raising forest cover (6.3)	MOEF	IFA, FCA, WLPA
C180	Conserving the natural heritage of the country (6.3)	MOEF	IFA, FCA, WLPA
C181	Increasing substantially the forest/tree cover in the country (6.3)	MOEF	IFA, FCA, WLPA
C182	Conservation of existing forests (6.3)	MOEF	IFA, FCA, WLPA
C183	Maintenance of environmental stability through preservation and restoration of the ecological balance (6.3)	MOEF, OTHR	EPA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C184	Meeting the rights and concessions for requirements of fuelwood, fodder, MFP, and small timber (6.3)	MOEF, MORD, MOAGRI	None
C185	Increasing the productivity of forests to meet essential national needs (6.3)	MOEF	NA
C186	Encourage efficient utilisation of forest produce (6.3)	MOEF, OTHR	NA
C187	Restriction on diversion of forest lands for non-forest use and compensatory afforestation in case where diversion of forest land is unavoidable (6.3)	MOEF	FCA
C188	Afforestation on common lands by local communities through usufruct sharing schemes (6.3)	MOEF, MORD	NA
C189	Motivation of farmers/land owners to resort to tree farming (6.3)	MOEF, MORD, MOAGRI	NA
C190	Substitution of wood by other materials (6.3)	MOEF, MOIND, MOS&T	None
C191	Permission to forest-based enterprises after a thorough scrutiny regarding the availability of raw materials (6.3)	MOEF, MOIND	None
C192	Supply of forest produce to the industrial consumers only at its true market value (6.3)	MOEF, MOIND	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C193	Involvement of local people and grass roots NGO's in the afforestation program and for protection of existing forests (6.3)	MOEF, MORD	None
C194	Creation of land banks for compensatory afforestation (6.3)	MOEF, OTHR	NA
C195	Prevention and control of pollution and environmental hazards in energy generation and use (6.4)	MOEF, MOPOW	WA, AA, EPA
C196	Popularisation of environmentally benign energy systems (6.4)	MOEF, MOPOW	
C197	EIA prior to investment decisions and site selection (6.4)	MOEF	None
C198	Choice of practicable and clean technologies for energy generation (6.4)	MOEF, MOPOW	NA
C199	Build processes for waste utilisation, treatment and disposal of solid wastes, effluents and emissions (6.4)	MOEF, MOPOW, OTHR	None
C200	Location of projects based on environmental considerations including pollution, displacement of people, and loss of biodiversity (6.4)	MOEF, MOPOW, OTHR	None
C201	Decentralised small projects for rural energy and incentives for use of non-conventional energy (6.4)	MOEF, MOPOW, MORD	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C202	Incentives and punitive measures (including proper pricing) to prevent abuse and promote use of energy efficient devices in production and distribution systems for energy conservation (6.4)	MOPOW, MOEF, OTHR	None
C203	Development and propagation of non-conventional renewable energy generating systems (6.4)	MOPOW, MOS&T	NA
C204	Promote use of alternative sources of energy (6.3)	MOPOW, MOEF, OTHR	NA
C205	Promote use of fuel efficient stoves (6.3)	MORD, MOPOW	NA
C206	Setting up of biogas plants (6.4)	MORD, MOPOW	NA
C207	Integrate industrial growth with environment (6.5)	MOEF, MOIND, PC	NA
C208	Incentives for environmentally clean technologies, recycling and reuse of wastes, and conservation of natural resources (6.5)	MOEF, OTHR	NA
C209	Operationalisation of the 'polluter pays principle' by introducing effluent tax, resource cess for industry, and implementation of standards based on resource consumption and production capacity (6.5)	MOEF, OTHR	WA, AA
C210	Fiscal incentives to small-scale industries for pollution control and reduction of wastes (6.5)	MOEF, MOIND, MOFIN	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C211	Deciding industrial sites so that wastes from one can be used as raw material for the other (6.5)	MOEF, MOIND,	
C212	Location of industries as per environmental guidelines for siting of industry (6.5)	MOEF, MOIND	None
C213	Enforcement of pollution control norms with particular attention to highly polluting industries (6.5)	MOEF	WA, AA
C214	Encourage use of environmentally benign automobiles/motor vehicles (6.5)	MOEF, MOSTRA, MOS&T	Motor Vehicles Act
C215.	Encourage reduction of auto-emissions (6.5)	MOEF, MOIND, MOSTRA	Motor Vehicles Act
C216	Installation and operation of common effluent treatment facilities in industrial estates and in areas with a cluster of industries (6.5)	MOEF, MOIND	NA
C217	Introduction of 'Environmental Audit' with special reference to pollution control and waste management (6.5)	MOEF, MOIND, OTHR	NA
C218	Dissemination of information for public awareness on environmental safety aspects (6.5)	MOEF, MOI&B	None
C219	Measures to ensure safety of workers and general population against hazardous substances and processes (6.5)	MOEF, MOIND, MOLAB, OTHR	WA, AA, EPA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C220	Preparation of on-site emergency plans for hazardous industries (6.5)	MOEF, MOIND	None
C221	Preparation of off-site emergency plans for districts in which hazardous units are located (6.5)	MOEF, MOIND, MOUD	None
C222	Public liability insurance against loss or injury to life or property (6.5)	MOEF, MOFIN	PIL Act
C223	Setting up of environment cells for implementing environmental management plans (6.5)	MOEF, OTHR	NA
C224	Setting up of environmental cells for compliance of environmental laws (6.5)	MOEF	NA
C225	Internalising environmental safeguards as components of the total project cost (6.5)	MOEF, OTHR	None
C226	EIA from the planning stage and selection of sites for location of industries (6.5)	MOEF	None
C227	Clearance by MoEF of all projects above a certain size and in certain fragile areas (6.5)	MOEF	None
C228	Prevent and mitigate environmental repercussions in mining and quarrying (6.6)	MOEF, MOMINE	None
C229	Mined area rehabilitation (6.6)	MOMINE, MOEF	None

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C230	Implementation of the environmental management plans concurrently with the on-going mining operations (6.6)	MOMINE, MOEF	None
C231	Laying down of requisite stipulations for mining leases regarding tenure, size, shape, and disposition with reference to geological boundaries (6.6)	MOMINE, MOEF	None
C232	Ensure systematic extraction of minerals along with environmental conservation (6.6)	MOMINE, MOEF	None
C233	Emphasis on production of value added finished products to reduce indiscriminate extraction (6.6)	MOMINE, MOEF, OTHR	NA
C234	Upgradation and beneficiation of minerals at the source to ensure utilisation of low-grade mineral resources, and reduce cost of transportation, processing, and utilisation (6.6)	MOMINE, OTHR	NA
C235	Environmentally safe disposal of the by-products of mining (6.6)	MOMINE, MOEF	None
C236	Restriction on mining and quarrying activities in sensitive areas such as hill slopes, natural springs, and areas rich in biodiversity (6.6)	MOEF, MOMINE	None
C237	Discouraging selective mining of high grade ores (6.6)	MOMINE	None
C238	Recovery of lower grade ores during mining (6.6)	MOMINE	None

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C239	EIA prior to selection of sites for mining and quarrying activities (6.6)	MOEF, MOMINE, MOMINE	None
C240	Ensure sustainable growth of tourism without causing irreversible damage to natural environment (6.7)	MOEF, MOTOUR	None
C241	Promotion of tourism based on assessment of carrying capacity and support facilities like transport, fuel, water, and sanitation (6.7)	MOEF, MOTOUR	None
C242	Development of tourism in harmony with the environment and without affecting the lifestyles of local people (6.7)	MOEF, MOTOUR	None
C243	Restriction on indiscriminate growth of tourism (6.7)	MOTOUR, MOEF	None
C244	Strict regulation of the tourist activities in sensitive areas such as hill slopes, islands, coasts, national parks, and sanctuaries (6.7)	MOEF, MOTOUR	WLPA for parks and sanctuaries. None for others.
C245	Prevention of pollution (6.8)	MOSTRA, MOEF, OTHR	WA, AA
C246	Development of an environmentally compatible transport system (6.8)	MOSTRA, MOEF, MORAIL, PC	NA
C247	Improvement in mass transport system to reduce consumption of fuel, traffic congestion, and pollution (6.8)	MOSTRA, MORAIL, PC	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C248	Improved transport system based on bio-energy and other non-polluting energy sources (6.8)	MOSTRA, MOS&T, PC	NA
C249	Rail transport and pipeline transport instead of road transport (6.8)	MOSTRA, MORAIL, PC, OTHR	NA
C250	Transportation of hazardous substances through pipelines (6.8)	MOIND, OTHR	None
C251	Maintain roads, update traffic regulation, and enforce prescribed standards to improve traffic flow (6.8)	MOSTRA	NA
C252	Enforcement of smoke emission standards (6.8)	MOEF, MOSTRA	AA
C253	Phasing out the use of lead in motor spirit (6.8)	MOEF, MOSTRA, MOPOW	None
C254	Regulations for environmental safety in transportation of hazardous substances (6.8)	MOSTRA, MORAIL, MOCAP, MOEF	EPA
C255	Check unplanned growth of human settlements (6.9)	MORD, MOUD	NA
C256	Ensure a better quality of life for people (6.9)	PC, OTHR	NA
C257	Creation of gainful employment opportunities in rural areas (6.9)	MORD, MOAGRI, MOIND, PC	None
C258	Provision for meeting basic needs through better communications, entertainment, medical and educational facilities in rural areas (6.9)	MORD, MOUD, PC, OTHR	None

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C259	Establishment of secondary cities and towns with infrastructural services and employment opportunities by developing human settlement perspective plan at national and state level (6.9)	MOUD, PC	NA
C260	Disincentives for industrial and job location in existing urban centers. Improvement of infrastructural facilities in an integrated manner (6.9)	MOUD, MOIND	None
C261	Promoting the use of indigenous building materials and appropriate construction technologies (6.9)	MOUD, MOS&T, MOEF	None
C262	Revising building and planning codes supporting small scale production, skill upgradation of artisans and people oriented delivery systems (6.9)	MOUD, MORD, MOEF	None
C263	Regulation to ensure heritage sites and buildings are not demolished, encroached upon and affected by indiscriminate construction and pollution (6.9)	MOUD, MORD, MOHRD	Some
C264	Stock-taking of buildings/areas/monuments of heritage value in the country (6.9)	MOUD, MORD, MOHRD	NA
C265	Recycling of existing building stock to save green open compounds and save building material (6.9)	MOUD	None

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C266	Planting of shade giving and fruit bearing, ornamental trees (6.9)	MOEF, MOUD, MORD	NA
C267	Botanical gardens representing the local flora (6.9)	MOEF, MOUD	NA
C268	Raising of gardens, parks and open spaces in the towns and cities (6.9)	MOUD, MOEF	NA
C269	Assigning responsibility amongst the various authorities for the propagation and protection of urban forestry (6.9)	MOUD, MOEF	NA
C270	Deterrent measures to discourage indiscriminate growth of human settlement and polluting industries in hilly regions (6.9)	MOUD, MORD, MOEF, MOIND	None
C271	Deterrent measures to discourage indiscriminate growth of human settlement and polluting industries in coastal stretches (6.9)	MOUD, MORD, MOEF, MOIND	None
C272	Environmental appraisal of projects related to urban development and regional planning (6.9)	MOEF, MOUD, MORD	None
C273	Preparation of environmental/eco-development plans for sensitive regions and sub-regions (6.9)	MOEF, PC	None
C274	Prevention of environmental health problems and associated communicable and non-communicable diseases by educating people (6.9)	MOEF, MOHEA, MOUD, MORD, MOHRD	NA

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C275	Creation/strengthening of health care facilities for all sections of society (6.9)	MOUD, MORD, MOHEA	NA
C276	Establishment of monitoring systems and epidemiological data to ensure adequate early warning system for prevention and control of diseases (6.9)	MOUD, MORD, MOHEA	None
C277	Creation of new economic order (7.2)	PC	NA
C278	Augment India's capacity to deal with environmental problems with new and additional funding and environmentally sound technology transfer (7.3)	MOEA, MOEF, MOS&T, MOFIN, MOCOM, PC	NA
C279	Reduction of international economic and commercial pressures which generate unsustainable exploitation (7.3)	MOEF, OTHR	None
C280	Get additional financial resources to tackle environmental damage (7.3)	MOFIN, MOEF, OTHR	None
C281	Minimise adverse environmental impacts of development (7.4)	MOEF, PC, OTHR	NA
C282	To try and reflect traditional Indian ethos in modern lifestyles (7.4)	MOEF, MOHRD, OTHR	NA
C283	Linkage among compartmentalised sectors (8.1.1)	PC, OTHR	NA
C284	Change in institutional mechanism for public participation (8.1.1)	MOEF, OTHR	None

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C285	Quick decision making on development projects based on their potential to render long term benefits to society, particularly vulnerable sections (8.1.1)	PC, OTHR	NA
C286	Implementation of laws and regulations for environmental protection (8.1.1)	MOEF	NA
C287	Periodic review of existing laws and enforcement mechanisms (8.1.2)	MOEF	NA
C288	Analyse how economic policies affect environmental resources (8.2.1)	MOEF, PC, OTHR	NA
C289	Build a system of natural resource accounting (8.2.1)	MOEF, PC	None
C290	GNP and GDP to include measures of environmental cost (8.2.2)	MOEF, MOFIN, PC	None
C291	Prepare an annual natural resources budget (8.2.3)	MOEF, PC	None
C292	Orient available management resources towards environmental considerations (8.3.1)	MOEF, MOHRD	NA
C293	Develop expertise through training programs (8.3.1)	MOEF, MOHRD	NA
C294	Formal education and training in pollution control and environmental management (8.3.2)	MOEF, MOHRD	NA

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C295	Introduction of intensive programs for education and training in IIT's, Universities, and professional institutions (8.3.2)	MOHRD, MOEF, US&T	NA
C296	Environmental education at the school level including training of teachers (8.3.2)	MOHRD, MOEF	NA
C297	Raise public awareness and involvement in environmental activities and issues (8.4)	MOEF, MOHRD, MOI&B	None
C298	Promote people's participation in environmental activities and conservation of natural resources (8.4)	MOEF	None
C299.	Develop environmental education resource material (8.4)	MOEF, MOHRD	NA
C300	Strengthen use of communication media, both modern and traditional (8.4)	MOEF, MOHRD, MORD, MOI&B	NA
C301	Strengthen existing Environmental Educational centres (8.4)	MOEF	NA
C302	Develop network of infrastructure for environmental education (8.4)	MOEF, MOHRD	NA
C303	Develop orientation centres and provide education material for visitors at national parks, sanctuaries, and tiger reserves (8.4)	MOEF, MOTOUR	NA
C304	Develop appropriate low cost technologies using modern science, tailored to local environmental and socio-economic conditions (8.5)	MOEF, MOS&T, OTHR	NA

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C305	Avoid displacement of local people while implementing projects (8.6.1)	PC, MOEF, MOSW, OTHR	None
C306	Providing suitable facilities to oustees where displacement inevitable (8.6.1)	MOEF, PC, MOSW, OTHR	None
C307	Government to formulate a comprehensive rehabilitation policy which ensures that oustees are economically better off and above poverty line after rehabilitation (8.6.2)	PC, MOEF, MOSW, OTHR	None
C308	Build a network among NGO's (8.7.1)	MOEF, OTHR	NA
C309	Interface between people and government to work on community involvement (8.7.1)	MOEF, OTHR	NA
C310	Provide information on environmental surveillance and monitoring (8.7.1)	MOEF	None
C311	Transmit scientific and technological development to people (8.7.1)	MOEF, PC, MOS&T	NA
C312	Set up environmental information centres at the district level to generate knowledge regarding traditional and endogenous system management practices (8.7.2)	MOI&B, MOEF, OTHR	NA
C313	Manage and disseminate environmental information (8.7.2)	MOEF, OTHR	None

Table 2 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
C314	Empowerment of NGO's, citizen's groups, and village level institutions to mobilise public opinion and participate in development activities (8.7.3)	MOEF, MORD, OTHR	None
C315	Strengthen managerial capacity of NGO's (8.7.4)	MOEF, MORD, OTHR	NA
C316	Organise training programs for NGO's on a regional basis (8.7.4)	MOEF, MORD, OTHR	NA
C317	Make available an advisory cell for rural NGO's in district head quarters (8.7.4)	MOEF, MORD, OTHR	NA
C318	Active involvement of women at the grassroots in conservation programs which are income generating and self financing and sustainable in the long run (8.8)	MOEF, MORD, OTHR	None
C319	Government Ministries/Departments to have an NGO cell or a liaison Officer for interaction with NGO's (8.8)	MOEF, OTHR	NA
C320	Policies and Programs at Centre and state level to be drawn keeping in view overall national policy considerations (8.9)	PC, MOEF, OTHR	NA
C321	A Centre/State monitoring mechanism to be set up for inter-action in implementing policy initiatives (8.9)	PC, MOEF, OTHR	NA

Table 3 ACTION POINTS EMANATING FROM THE POLLUTION POLICY

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P1	Development of a positive attitude on the part of every one in society. (3.1)	MOEF, MOHRD, MOI&B	NA
P2	Integration of environmental and economic aspects in development planning. (3.2)	MOEF, PC, OTHR	None
P3	Integration of environmental consideration into decision making at all levels. (3.3)	MOEF, PC	None
P4	Laying stress on preventive aspects of pollution abatement. (3.2)	MOEF, OTHR	WA, AA
P5	Promotion of technological inputs to reduce industrial pollutants. (3.2)	MOEF, MOS&T, OTHR	WA, AA
P6	Relying on public cooperation to respond to challenges for securing a clean environment. (3.2)	MOEF, MOI&B, OTHR	None
P7	To Prevent pollution at sources. (3.3)	MOEF, OTHR	WA, AA
P8	Development and application of the best available practicable technical solutions. (3.3)	MOEF, MOS&T	None
P9	To ensure payment for the pollution and control management by the polluter. (3.3)	MOEF	WA, AA
P10	To focus protection on heavily polluted areas and river stretches. (3.3)	MOEF	WA, AA
P11	To involve the public in decision making. (3.3)	MOEF	None

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P12	Mechanism to be evolved for reduction of local concentration of pollutants in Complex Industrial sites. (4.1)	MOEF	None
P13	Strategies to be developed for high pollution load areas to counteract accumulative effect of various types of pollutants. (4.1)	MOEF	None
P14	Targeting existing units in high pollution load areas for effective action. (4.1)	MOEF	WA, AA
P15	New units (In high pollution load areas) will be required to comply with location specific standards for stringent environmental quality objectives. (4.1)	MOEF	WA, AA
P16	Inclusion of matching waste generators with waste buyers for solving waste disposal in New units. (4.1)	MOEF, MOPOW, MOIND, MOUD	None
P17	Setting up of Industrial estates which will include pollution abatement measures as an essential component of the infrastructure. (4.2)	MOEF, MOIND	None
P18	Clusters of small Industrial units in rural areas should also include pollution abatement measures as an essential component of infrastructure. (4.2)	MOEF, MOIND, MORD	None
P19	Setting up of Biological waste water treatment plants, on land disposal using suitable vegetative cover and resource recovery technologies. (4.3)	MOEF, MOS&T, DOBIO	None

Table 3 Contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P20	Restriction of mining operations in ecologically fragile areas (4.4)	MOEF, MOMIN	None
P21	Every mining project should have a mining plan including an environmental management plan (4.4)	MOEF, MOMIN	None
P22	A time bound reclamation programme for controlling the environmental damage and for restoration of mined areas. (4.4)	MOEF, MOMIN	None
P23	Common effluent treatment plant scheme to be extended for providing necessary technical support. (5.1)	MOEF, MOS&T	NA
P24	Assistance to be provided to small scale industrial units (particularly those located in rural areas) to aid the implementation of pollution control measures (5.2)	MOEF, MOIND, MORD	NA
P25	Promoting the development of cleaner technologies (5.2)	MOEF, MOIND, MOS&T	NA
P26	Adoption of cleaner technologies including environmentally friendly biotechnology. (5.2)	MOEF, MOIND, MOS&T, MOUD, MOPOW, DOBIO	None
P27	Present norms/standards to be revised to lay down mass based standards (6.1)	MOEF	None
P28	To set specific limits to encourage the minimisation of waste. (6.1)	MOEF	WA, AA
P29	To promote recycling and reuse of materials. (6.1)	MOEF, OTHR	None

Table 3 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P30	To promote conservation of natural resources, particularly water. (6.1)	MOEF, MOUD, MOWR, MOIND, MOPOW	Water (Cess) Act
P31	Standards (not only a regulatory tool) to be used to ensure promotion of technological upgradation to prevent pollution, conserve resources & regulate waste. To ensure this codes of practice and guidelines to be evolved for specific processes(6.3)	MOEF, OTHR	None
P32	As standards will be source related the most polluting Industrial processes (specially users of toxic substances) Will require to apply the best available technological solution and should also be an instrument for technological upgradation. (6.1)	MOEF, MOS&T, MOIND, OTHR	NA
P33	Ensuring that new units conform to stricter standards (6.2)	MOEF	WA, AA
P34	New units to select technologies which produce no or low quantities of wastes. (6.2)	MOEF, OTHR	None
P35	New units to select technologies which recycle or reuse waste products. (6.2)	MOEF, OTHR	None
P36	To evolve more strict vehicle emission standards to deal with environmental hazards caused by vehicular traffic (6.2)	MOEF, MOIND, MOSTRA	Motor Vehicles and Regulations Act

Table 3 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P37	The Environmental effects (from production to disposal of hazardous and toxic products) to be taken into account in the regulations. (6.4)	MOEF	None
P38	To review chemicals according to level of risk and restrictions to be imposed where safer alternatives of risky chemicals have become available. (6.4)	MOEF, MOAGRI, MOIND, MOHEA	None
P39	To supplement the standards with regulation for liability and compensation for damages in the management of hazardous waste regulation. (6.4)	MOEF	Liability Act
P40	Regulations and Remedial action in case of contamination of soil and ground water. (6.4)	MOEF, OTHR	None
P41	Setting up of special legal institutions for compensation to individuals for environmental damage (including health and environmental damage by pollution) (11.4)	MOEF	Liability Act
P42	Adequate arrangements to be made for interim relief (11.4)	MOEF	Liability Act
P43	Introducing new approaches for considering market choices in terms of reviewing the items for which excise and custom rebate are allowed. (7.2)	MOEF, MOFIN	NA
P44	Encouraging the internalisation of the cost of pollution. (7.3)	MOEF, MOFIN	

Table 3 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P45	Encouraging the conservation of resources (especially water) (7.3)	MOEF, MOAGRI, MOWR, MOUD, MOIND, MOPOW	
P46	To Levy an effluent charge based on the nature and volume of releases to the environment, and the cost of treatment (7.3)	MOEF	WA, AA
P47	To provide incentive to set up treatment plants (7.3)	MOEF	NA
P48	To extend the scope of charges to emission and solid waste (7.3)	MOEF	None
P49	To use the revenues for enforcement, collective treatment facilities, promoting new investment. (7.4)	MOEF, MOFIN	NA
P50	Adoption of economic instruments according to the ease with which releases can be measured and prospective changes in technology and market structures (7.5)	MOEF, MOFIN	None
P51	To adopt a mix of regulatory and economic measures to deal with range of pollution problems. (7.5)	MOEF, MOFIN	WA, AA
P52	Integration of environmental concerns more effectively in all policy areas (sectoral ministries, state government, local bodies, development agencies). (8.1)	MOEF, PC, OTHR	None
P53	Environment concerns need to be built in to the manner of operation of local authorities (8.1)	MOEF, PC, OTHR	None

Table 3 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P54	To strengthen governmental and institutional structure dealing with environmental management. (specially sectors of energy, industry, water resources, transport and agriculture (8.1)	MOEF, PC, OTHR	None
P55	To strengthen institution who develop specific programmes in regards to pollution prevention (8.1)	MOEF, MOS&T	NA
P56	Legislation to be amended to incorporate and eliminate clashes with environmental criteria. (8.2)	MOEF	NA
P57	To set up an integrated overview and organisational structure for decentralized environment impact assessments and environmental law enforcement based on cooperation with local authorities. (8.2)	MOEF, PC	NA
P58	To formulate a long term policy for pesticide use which includes introduction of environmental acceptable pesticide (biopesticide and non persistent bio degradable ones). (8.3)	MOEF, MOAGRI, MOHEA, MOIND	NA
P59	Integrated pest management together with the phasing out of the proven harmful toxic and persistent ones. (8.3)	MOEF, MOAGRI, MOHEA, MOIND	NA
P60	To formulate a similar policy for fertilizer use (8.3)	MOEF, MOAGRI, MOHEA, MOIND	NA
P61	To fully protect existing forests and natural vegetation (8.4)	MOEF	None

Table 3 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P62	To increase and restore forest and vegetal cover (where ever possible) (8.4)	MOEF	NA
P63	To encourage planting of trees (8.4)	MOEF	NA
P64	To raise green belt areas in urban and industrial areas (8.4)	MOEF, MOIND, MOUD	None
P65	To include a chapter on the action taken up to follow up the policy statement in the Annual Administration reports of the Ministries (8.5)	MOEF, OTHR	
P66	Procedure of an environmental statement to be introduced in local bodies, statutory authorities and public limited companies to evaluate the effect of the policies , operations and activities on environment. (9.1)	MOEF, OTHR	
P67	Procedure of an environmental statement to be introduced in local bodies, statutory authorities and public limited companies for compliance with standards and the generation and recycling of waste. (9.1)	MOEF, OTHR	
P68	To collect and integrate environment, economic and health data for determining the status and developing a concise set of environmental indicators for monitoring the effects of pollution (10.1)	MOEF, MOHEA	None
P69	To provide information and access to public about what is happening to the environment. (10.1)	MOEF	None

Table 3 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
P70	To educate citizens about environmental risks, economic and health dangers of resource degradation and real cost of natural resource (11.1)	MOEF	NA
P71	To publish periodically information on environment. (11.1)	MOEF	None
P72	To set up a system of certification of goods that are "environmentally friendly" to encourage environmental consciousness and make available information to consumers. (11.3)	MOEF	
P73	Greater emphasis to be placed on promoting awareness, undertaking and competence in schools, colleges, training institutions. (11.5)	MOEF, MOHRD	
P74	To encourage and support the commitment and work of responsible NGOs and individuals (11.2)	MOEF	NA
P75	To encourage NGOs and professionals to be more active in environmental training and building awareness (11.5)	MOEF	NA
P76	Social action about growing concerns like litter, noise pollution to be promoted by voluntary organisations and individuals through knowledge, education, training camps and information campaign (11.6)	MOEF	NA

Table 4: ACTION POINTS EMANATING FROM THE CONVENTION ON CLIMATE CHANGE

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
CL1	The parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. 3/1.1	MOEF, PC, MOIND, MOPOW, MOAGRI	None
CL2	The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. 3/3.1	MOEF, MOS&T, PC, MOPOW, MOIND, MOAGRI	NA
CL3	Policies and measures to deal with climate change should be cost effective so as to ensure global benefits at the lowest possible cost. 3/3.2	MOEF, MOFIN, PC	NA
CL4	Policies and measures (to deal with climate change) should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. 3/3.3	MOEF, PC	NA
CL5	Efforts to address climate change may be carried out cooperatively by interested Parties. 3/3.4	MOEF, MOEA	NA
CL6	The Parties have a right to, and should, promote sustainable development. 3/4.1	MOEF, PC, OTHR	NA

Table 4 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
CL7	Policies and measures to protect the climate system against human induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes. 3/4.2	MOEF, PC, MOIND, MOPOW, MOAGRI	NA
CL8	The Parties should cooperate to promote a supportive & open international economic system that would lead to sustainable economic growth & development in all Parties, esp. dev. country Parties, to address the problem of climate change efficiently. 3/5.1	MOEF, PC, MOEA	NA
CL9.	Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. 3/5.2	MOEA, MOFIN, MOCOM	None
CL10	Develop, periodically update, publish and make available national inventories of anthropogenic emissions by sources and removal by sinks of all greenhouse gases, using comparable methodologies to be agreed upon by the Conference of the Parties. 4/1.a *	MOEF, MOS&T	None

* Not controlled by the Montreal Protocol

Table 4 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
CL11	Formulate, implement, publish & regularly update national &, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic sources and removals by sinks of all greenhouse gases. 4/1.b *	MOEF, PC, MOEA	NA
CL12	To facilitate adequate adaptation to climate change. 4/1.b	MOEF, PC	NA
CL13	Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases, in all relevant sectors. 4/1.c *	MOEF, MOS&T, MOIND, MOPOW, MOAGRI	None
CL14	Promote sustainable management of sinks and reservoirs of all greenhouse gases, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems. 4/1.d *	MOEF	None
CL15	Promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases, including biomass, forests and oceans, other terrestrial coastal and marine ecosystems. 4/d *	MOEF	NA

* Not controlled by the Montreal Protocol

Table 4 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
CL16	Cooperate in preparing for adaptation to the impacts of climate change. 4/1.e	MOEF, PC, MOEA	NA
CL17	Develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture. 4/1.e	MOEF, PC, MOWR, MOAGRI	NA
CL18	Develop and elaborate appropriate and integrated plans for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods. 4/1.e	MOEF, PC, MOAGRI, MOWR, MORD	NA
CL19	Take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions. 4/1.f	MOEF, OTHR	NA
CL20	Employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy of projects or measures undertaken by them to mitigate or adapt to climate change. 4/1.f	PC, MOIND, MOWR, MOPOW, MOAGRI	NA
CL21	Promote & cooperate in scientific, technological, technical, socio-economic and other research, systematic observation & development of data archives related to the climate system. 4/1.g	MOEF, MOS&T, MOIND, MOWR, MOPOW	NA

Table 4 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
CL22	Research, observation & development of the data archive intended to further the understanding & to reduce/eliminate the remaining uncertainties regarding climate change & the economic & social consequences of various response strategies 4/1	MOEF, MOS&T	NA
CL23	Promote & cooperate in the full, open & prompt exchange of relevant scientific, technological, socio-economic & legal information related to the climate system & climate change, & to the economic & social consequences of various response strategies 4/1.h	MOEF, MOS&T, PC	None
CL24	Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organisations 4/1.i	MOEF, MOHRD, MOI&E	NA
CL25	Each Party shall adopt appropriate national policies & take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases & protecting & enhancing its greenhouse gas sinks & reservoirs. 4/2.a	MOEF, PC, MOIND, MOPOW, MOAGRI	None

Table 4 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
CL26	These Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention. 4/2.a	MOEF, MOEA, OTHR	NA
CL27	Reporting to be done by Each Party 4/2.b	MOEF, MOEA	NA
CL28	Calculations of emissions from sources & removals by sinks of greenhouse gases should take into account the best available scientific knowledge, including the effective capacity of sinks & the respective contributions of such gasses to climate change4/2.c	MOEF, MOS&T	NA
CL29	Support & further develop, as appropriate, international & intergovernmental programmes & networks or organisations aimed at defining, conducting, assessing & financing research, data collection and systematic observation, to minimize duplication. 5/a	MOEF, MOS&T, MOEA	NA
CL30	Support international and intergovernmental efforts to strengthen systematic observation and national scientific and technical research capacities and capabilities, particularly in developing countries. 5/b	MOEF, MOEA	NA

Table 4 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
CL31	To promote access to, and the exchange of, data and analyses thereof obtained from areas beyond national jurisdiction. 5/b	MOEF, MOEA	None
CL32	Promote and facilitate at the national and, as appropriate, subregional and regional levels the development and implementation of educational and public awareness programmes on climate change and its effects. 6/a.i	MOEF, MOHRD, MOI&B, MOEA	NA
CL33	Promote and facilitate at the national and, as appropriate, subregional and regional levels public access to information on climate change and its effects. 6/a.ii	MOEF, MOHRD, MOI&B, MOEA	None
CL34	Promote and facilitate at the national and, as appropriate, subregional and regional levels public participation in addressing climate change and its effects and developing adequate responses. 6/a.iii	MOEF, MOEA	NA
CL35	Promote and facilitate at the national and, as appropriate, subregional and regional level training of scientific, technical and managerial personnel. 6/a.iv	MOEF	NA
CL36	Cooperate in and promote, at the international level, and, where appropriate, using existing bodies the development and exchange of educational and public awareness material on climate change and its effects. 6/b.i	MOEF, MOHRD	NA

Table 4 contd.

NUMBER	ACTION POINTS	CENTRAL AGENCY RESPONSIBLE	LEGAL INSTRUMENTS
CL37	Cooperate in & promote, at the international level, and, where appropriate, using existing bodies the development & implementation of education & training programmes, including the strengthening of national institutions and the exchange of personnel6/b.i	MOEF, MOS&T, MOHRD, MOAGRI	NA
CL38	Each Party shall communicate a national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases to the extent its capacities permit. 12/1.a	MOEF, MOS&T	NA
CL39.	Each Party shall communicate a general description of steps taken or envisaged by the Party to implement the Convention. 12/1.b	MOEF, MOEA	NA
CL40	Developing country Parties may (voluntarily) propose projects for financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects & if possible, an estimate of cost & benefits 12/4	MOEF, MOS&T	NA

