

ST-GENERAL 5
THEMDOC

ST. GENERAL | 5.1.1. | THEM DOC | FORMAT FOR SUB THEMATIC REVIEWS | VER. 1, BT
ST. GENERAL | 5.1.2 | THEM DOC | FORMAT FOR SUB THEMATIC REVIEWS | VER. 2, BT, 2.9.00

interference

1.32

Musical echoes

What causes the musical echo you can sometimes hear when you make a noise near a fence or a flight of stairs? Can you calculate the pitch of the echo?

81, p. 32; 127, pp. 313-314; 145, p. 13; 164, pp. 426-427; 182; 206; 207, pp. 47-48; 208.

turbulence

refraction

1.33

Tornado sounds

My grandmother could always forecast a tornado by the deathly silence that would suddenly fall before the appearance of the tornado. Why the silence? When the twister hit, there would be a deafening roar much like a jet plane's. Why the roar? Finally, there are reports that in the tornado's center it is, again, deathly quiet. Can this be true? Wouldn't you hear at least the furious destruction taking place outside the center?

165, pp. 144-145; 223, pp. 67, 83; 224 through 226.

reflection

Rayleigh waves

1.34

Echo Bridge

The whispering gallery effect may be responsible for some of the sounds you can hear beneath a bridge arch. If you stand near the wall of such an arch (Figure 1.34) and whisper faintly, you will hear two echoes; a loud handclap will

yield many echoes. Can you account for these echoes? They can result either from normal reflections off the water or from the whispering gallery effect, or from both.

82, p. 87; 202; 203.

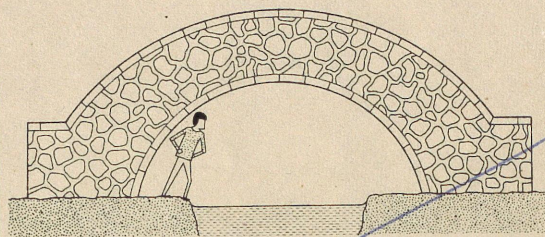
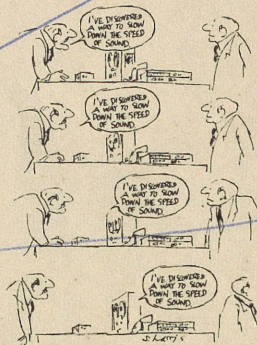


Figure 1.34
Echo bridge.



refraction

1.35

Sound travel in wind

Why is it easier to hear a distant friend yell if you are downwind rather than upwind? Is it because, as is commonly thought, there is a greater attenuation in the upwind direction?

81, pp. 33-34; 82, pp. 107-108; 124, pp. 17-18; 127, pp. 322-325; 142, pp. 119-121; 185, pp. 11-13, 311; 186, pp. 66-67; 187, p. 137; 207, pp. 52-53; 210, pp. 599-600; 212; 213, pp. 52-55; 222.

propagation

1.36

Brontides

Throughout history there have been tales of mysterious sounds from the sky, rumblings, and short cracklings when the sky is perfectly clear and there are no obvious noise sources. These noises—called brontides, mistpoeffers, or Barisal guns—are heard virtually everywhere: over flatland, over water, and in the mountains. In a study of 200 Dutch mistpoeffers it was found that the sound came most often in the morning and afternoon, less often at noon, and hardly ever during the night. In some places they are far from rare. For example, near the Bay of Bengal they are heard so frequently that

the people ascribe the sounds to the gods. In other places, however, they are now probably dismissed as sonic booms.

One is tempted to identify these mysterious sounds as distant thunder, but thunder is normally not heard at distances greater than 15 miles*. Besides, these sounds are heard on clear days.

Can you think of other possible explanations?

164, p. 442; 227; 1611, Section GS.

*See Prob. 1.38

diffraction

1.37

Shadowing a seagull's cry

For an example of quiet "shadows" behind objects, let me offer the following story (see Figure 1.37).

In the spring the seagulls resort in large numbers to the moss to lay their eggs and when the young birds are able to fly, the air is filled with their shrill screams. There is a road at a little distance from the nests and by the side of the road there is sometimes a row of stacks of peat. The length of one of these stacks is many times as great as the wave-

length of the scream of the birds and consequently a good sound shadow is formed. Opposite the gap between two stacks the sound is unpleasantly loud; opposite the stack itself there is almost complete silence, and the change from sound to silence is quite sudden (234).

Would there be a quiet region if seagulls cried in a deep voice rather than their shrill one?

128, p. 18; 234, p. 103.

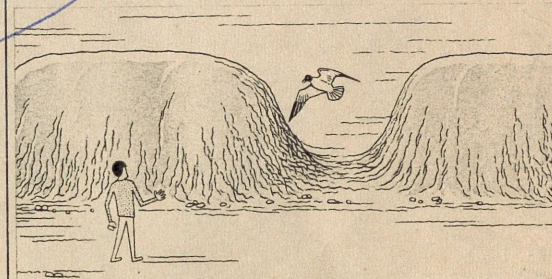


Figure 1.37

FORMAT FOR SUB THEMATIC REVIEWS

1. Short introduction to the subject;
How the subject relates to biodiversity (and the specific relation to biodiversity in the Indian context)
2. Method followed: this is most usually going to be literature review or by case studies. The method by which the review was conducted, and scope of the sub thematic review should be laid out clearly.
3. Which themes of the NBSAP and/or geographical areas does this sub thematic review relate to? Also which parts of the scope of the NBSAP (i.e., wild or domesticated, species or ecosystems), and/or which aspects (conservation, sustainable use, etc) does the subject relate to?
4. Brief profile of the case study sites, if applicable.
5. Issues in this sub theme/ Description of developments in the sub theme and the consequent changes in their relationship with biodiversity (can be organised into positive and negative effects). This can include:
 - ongoing initiatives regarding this issue;
 - Identification of key actors involved;
 - major gaps in coverage;
6. Policy instruments affecting the relationship of this subject with biodiversity.
7. Specific actions that may aid the positive connections, and/or are needed to fill gaps and rectify harmful effects on biodiversity.; changes needed to policy.
8. Identification of key elements needed for implementation: institutional structures, funds, expertise/human resources, policy/legal measures, monitoring, etc.

FORMAT FOR SUB THEMATIC REVIEWS

This is only an indicative format, and is meant to be comprehensive. All heads and subheads will not necessarily be relevant to each group/area. The specific format followed in each sub thematic review will depend on the brief given to individual authors by the TPCG. In particular, Point 5 below can be optional ; Point 7 & 8 below should be focussed on.

1. Short introduction to the subject;
How the subject relates to biodiversity (and the specific relation to biodiversity in the Indian context)
2. Method followed: this is most usually going to be literature review or by case studies. The method by which the review was conducted , and scope of the sub thematic review should be laid out clearly.
3. Which themes of the NBSAP and/or geographical areas does this sub thematic review relate to? Also which parts of the scope of the NBSAP (i.e., wild or domesticated, species or ecosystems), and/or which aspects (conservation, sustainable use, etc) does the subject relate to?
4. Brief profile of the case study sites, if applicable.
5. Issues in this sub theme / Description of developments in the sub theme and the consequent changes in their relationship with biodiversity (can be organised into positive and negative effects). This can include:
 - ongoing initiatives regarding this issue;
 - Identification of key actors involved;
 - major gaps in coverage;
6. Policy instruments affecting the relationship of this subject with biodiversity.
7. Specific actions that may aid the positive connections, and/or are needed to fill gaps and rectify harmful effects on biodiversity.; changes needed to policy.
8. Identification of key elements needed for implementation: institutional structures, funds, expertise/human resources, policy/legal measures, monitoring, etc.

put back

STATUS OF SUB-THEMATIC REVIEWS (as of 23.10.2000)

S. No.	Sub-thematic review	Remarks regarding scope and proposed reviewer	Decision by TPCG and Follow up
1.	History of biodiversity conservation	Swati Shreshth, Sultana Bashir, Mahesh Rangarajan ?	Mahesh to be contacted by Taneja, then to pursue with Sultana on her return from UK in August.
2.	Mining	Necraj Vagholikar, who is currently studying mining in protected areas.	Members felt that the review should synthesise and analyse the reviews/papers already done, and assess relevant policies. Vagholikar to be commissioned this review; he has agreed in principle. Sanction to be sought from MoEF by Kothari once TPCG agrees on amount of honorarium. Suggested honorarium (month's work): Rs. 15,000.
3.	Community Conserved Areas	Important topic for the process; could be undertaken by some state level partners, and an overview by Neema Pathak	Proposal received from Viksat for CCA in Gujarat. Request for sanction being sent.. Overview paper to be commissioned to Neema Pathak; she has agreed in principle. Sanction to be sought from MoEF by Kothari once TPCG agrees on amount of honorarium. Suggested honorarium (month's work): Rs. 15,000.
4.	Community biodiversity based enterprise	Chiranjeev Bedi could be asked. The focus here could be case studies, which is an aspect the Economics and Valuation TWG may not look into	Chiranjeev to be contacted for doing this paper, Bhatt to informally ask him. <i>Dr.</i>
5.	Plantations and biodiversity	One student of Chellam is a possibility, to look at commercial plantations and tree plantations separately.	Chellam to inquire and report. R. Jaipal Damodaran . Has done a lot of work on coffee plantations & biodiversity. Ajith Kumar could also suggest names
6.	Biodiversity in the Media	Look at national media and see how biodiversity has been dealt with in media over the last decade or so. Damandeep Singh could be asked, with inputs from Jai Chandiram and Tejbir Singh?	Damandeep Singh t contacted by Kothari.

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7.	Biodiversity in EIAs	It would be a good idea to have someone actually redo the EIA procedures and guidelines to reflect biodiversity concerns, and send that to the govt as a recommendation. Devaki Panini was a possibility.	Devaki Panini's proposal revised, to be discussed in the 11 th TPCG meeting
8.	Natural Dyes and biodiversity	Uzramma of Dastkar Andhra could be asked.	Uzramma would be contacted by Shankar.
9.	Nomadic pastoralism and biodiversity	Poornendu Kavoori, or Vasant Saberwal could be asked.	Scope could be cut down to limit to nomadic pastoralists. Kavoori has agreed to be nodal agency for Rajasthan, hence alternative needs to be found. Should we ask Vasant?
10.	Urban biodiversity	Amita Baviskar has been doing some work on this, should be asked.	Baviskar contacted by Taneja; she is willing to help out but her concentration is not on biodiversity, but urban environment generally. Kothari to ask Prakash Gole and Ranjit Daniels for tips, Ulhas Rane evinced interest & Kothari has sounded him out
11.	Home gardens and biodiversity	PhD scholar from Kerala being searched for.	Kothari to suggest, Bhattacharjee to suggest for North-East.
12.	Public Distribution System and biodiversity	Satheesh to suggest names	Satheesh has suggested some names, decision to be made on one of them, Satheesh to suggest.
13.	Thermal power and biodiversity	Shekhar Singh to be asked for suggestions	Singh suggested S.C. Maudgal, Sagar Dhara, Debi Goenka, and Shyam Chainani
14.	Wild Biodiversity on private, agricultural lands	WII has a project ongoing on this subject. Could it be tied in with this?	Wild biodiversity on agricultural lands should be considered as a sub thematic review. Satheesh to circulate a note on this and circulate to members. The larger issue of land tenurial systems should be circulated as part of the guidelines for each executing agency to look at.
15.	Tourism and biodiversity	Hari Babu of EQUATIONS, Bangalore, is working on this topic. He could be asked to do both an overview/analysis, as also a set of guidelines for executing agencies to look at this issue within their own action plan processes.	Kothari has asked Hari Babu, who has agreed in principle. Sanction to be sought from MoEF by Kothari once TPCG agrees on amount of honorarium. Suggested honorarium for both overview and for guidelines for executing agencies (5 week's work): Rs. 15,000. Dr. R. Shridhar's name (Dehradun) was also suggested

16.	Exotics and biodiversity	Will this be covered in Wild animal, wild plant and ecosystems TWGs?	Coordinators of the listed TWGs to be asked if they will deal with this topic, if not then TPCG will search for possible reviewers. Chellam to ask TWG coordinators
17.	Customary law	This could be added to the mandate for the policy, law and institutions group. However, if the group is not going to deal with this in detail, Ruchi Pant of ATREE, who has done a paper on this could be asked to do this review.	Kothari to contact & revert to TPCG. Kothari contacted Ruchi Pant who has agreed in principle, but wants an extension of the december deadline. Shruti to check re. Vasudha Dhagamwar, who has reportedly done a book on customary law.
18.	Current Wildlife Management practices	The topic is controversial and needs a clearer concept. A couple of good current wildlife managers could be asked to do the review.	Set of questions to be formulated by Chellam & circulate.
19.	Community based monitoring	Kamaljeet Bawa of ATREE could be asked for this, as he has been involved with such monitoring.	Bawa, and K.S. Murli, CES, Bangalore, to be asked. by Bhatt
20.	Paper industry and biodiversity	Bhattacharjee and Rodriguez to suggest names, the latter from CSE's Green Rating project.	Bhattacharjee will contact known people in this field in North East. Rodriguez will give names.
21.	Wildlife & human conflicts		Chellam to get back to TPCG. Ajay Mahajan has offered to do this sub theme, looking at community based solutions to this conflict. H.S. Pabla contacted by Kothari
22.	Dams & BD	Asmita Kabra, who was involved in World Commission on Dams paper on Environment, could be asked.	Asmita Kabra to be contacted by Taneja. S.C.Maudgal to be contacted
23.	Biodiversity and climate change	UNDP is funding work on climate change.	Kothari has been in communication with Mr. Sudhir Sharma of TERI, Convenor, GEF project
24.	Pesticides/ Toxics and Biodiversity	Bharati Chaturvedi	Proposal received, to be discussed
25.	Integrated Biodiversity Information System	Salim Javed, AMU	Kothari to write to Salim Javed about reviewing existing information systems and IBIS.

NTFP ?
0 - Ajay Dolke, Yamotmal

8.13

Ver 3 BT, 4.9.2000

ST General Status of sub-thematic reviews, Ver 1, AK, 27.7.2000

4.9.2000

STATUS OF SUB-THEMATIC REVIEWS (as of 6.8.2000)

S. No.	Sub-thematic review	Remarks regarding scope and proposed reviewer	Decision by TPCG and Follow up
1.	History of biodiversity conservation	Swati Shreshth, Sultana Bashir, Mahesh Rangarajan ?	Mahesh to be contacted by Taneja, then to pursue with Sultana on her return from UK in August.
2.	Perceptions of various social sections about biodiversity	Too vast a topic to be taken up at a national level	This could be handled individually by executing agencies. A line to this effect to be added to the format of SAP by Kothari, Bhatt to suggest methodologies for understanding perceptions on biodiversity (this is not clear???)
3.	Mining	Neeraj Vagholikar, who is currently studying mining in protected areas.	Members felt that the review should synthesise and analyse the reviews/papers already done, and assess relevant policies. Vagholikar to be commissioned this review; he has agreed in principle. Sanction to be sought from MoEF by Kothari once TPCG agrees on amount of honorarium. Suggested honorarium (month's work): Rs. 15,000.
4.	Biosafety and sustainable technologies	To be dropped because Tech and Industry group would deal with it	Dropped
5.	Community Conserved Areas	Important topic for the process; could be undertaken by some state level partners, and an overview by Neema Pathak	State level studies if anyone comes forward to do them. Overview paper to be commissioned to Neema Pathak; she has agreed in principle. Sanction to be sought from MoEF by Kothari once TPCG agrees on amount of honorarium. Suggested honorarium (month's work): Rs. 15,000.
6.	Community biodiversity based enterprise	Chiranjeev Bedi could be asked. The focus here could be case studies, which is an aspect the Economics and Valuation TWG may not look into	Chiranjeev to be contacted for doing this paper, Bhatt to informally ask him.
7.	Plantations and biodiversity	^{one student} Two students of Chellam are possibilities, to look at commercial plantations and tree plantations separately.	Chellam to inquire and report ^{on} R. Jaipal Damodaran (this seems to be a mix of two names, could someone clarify???) Has done a lot of work on coffee plantations & biodiversity. Ajith Kumar could also suggest names, Chellam to enquire.
8.	Biodiversity in the Media	Look at national media and see how biodiversity has been dealt with in media over the last decade or so. Damandeep Singh could be asked, with inputs from Jai Chandiram and Tejbir Singh?	Damandeep Singh to be contacted by Kothari.
9.	Biodiversity in EIAs	It would be a good idea to have someone actually redo the EIA procedures and guidelines to reflect biodiversity concerns, and send that to the govt as a recommendation. Devaki Panini was a	Devaki Panini has been asked by Shruti, has agreed in principle, issues of biodiversity to be discussed further. WII could also be asked separately.

still to do

- soon to suggest

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(MC)

		possibility.	
10.	Sacred groves	Dropped, as this would be a major theme in the Culture TWG.	Dropped
11.	Natural Dyes and biodiversity	Uzamma of Dastkar Andhra could be asked.	Uzamma would be contacted by Shankar. to do
12.	Nomadic pastoralism and biodiversity	Poornendu Kavoori, or Vasant Saberwal could be asked.	Scope could be cut down to limit to nomadic pastoralists. Kavoori has agreed to be nodal agency for Rajasthan, hence alternative needs to be found. Should we ask Vasant?
13.	Urban biodiversity	Amita Baviskar has been doing some work on this, should be asked.	Baviskar contacted by Taneja; she is willing to help out but her concentration is not on biodiversity, but urban environment generally. TPCG asked for more ideas
14.	Home gardens and biodiversity	PhD scholar from Kerala being searched for.	Kothari to suggest, Bhattacharjee to suggest for North-East.
15.	Public Distribution System and biodiversity	Satheesh to suggest names	Satheesh has suggested some names, decision to be made on one of them, Satheesh to suggest.
16.	Subsidies and macro-economic policies and biodiversity	Dropped because Economics and Valuation group should be dealing with this	Dropped
17.	Thermal power and biodiversity	Shekhar Singh to be asked for suggestions	Singh suggested S.C. Maudgal, Sagar Dhara, Debi Goenka, and Shyam Chainani
18.	Wild Biodiversity on private lands <i>agricult-</i>	WII has a project ongoing on this subject. Could it be tied in with this?	Wild biodiversity on agricultural lands should be considered as a sub thematic review. Satheesh to circulate a note on this and circulate to members. The larger issue of land tenurial systems should be circulated as part of the guidelines for each executing agency to look at.
19.	Tourism and biodiversity	Hari Babu of EQUATIONS, Bangalore, is working on this topic. He could be asked to do both an overview/analysis, as also a set of guidelines for executing agencies to look at this issue within their own action plan processes.	Kothari has asked Hari Babu, who has agreed in principle. Sanction to be sought from MoEF by Kothari once TPCG agrees on amount of honorarium. Suggested honorarium for both overview and for guidelines for executing agencies (5 week's work): Rs. 15,000.
20.	Innovative funding for biodiversity	Dropped because Economics and Valuation group would be dealing with this	Dropped
21.	Exotics and biodiversity	Will this be covered in Wild animal, wild plant and ecosystems TWGs?	Coordinators of the listed TWGs to be asked if they will deal with this topic, if not then TPCG will search for possible reviewers. Chellam to ask TWG coordinators

22.	People's Biodiversity Registers	Extensive information on PBRs for conservation exists at IISc, and in the BCPP documentation. Links of the PBR initiatives with the NBSAP process, as also cautions to be exercised, could be brought out, by someone involved with process such as Utkarsh Ghate. However, Access TWG may be dealing with this in detail, so they should be checked with.	ABS Group is taking up this topic. Kothari has spoken to Ghate, who has agreed in principle. ABS group may ask Ghate to carry out this component of the TWG's mandate. Sanction to be sought from MoEF by Kothari, in case the TWG is not taking this up itself. If so, suggested honorarium (3 weeks work): Rs. 10,000. <i>Group is taking it up. No separate note.</i>
23.	Customary law	This could be added to the mandate for the policy, law and institutions group. However, if the group is not going to deal with this in detail, Ruchi Pant of ATREE, who has done a paper on this could be asked to do this review.	Kothari to contact & revert to TPCG. Shruti to check re. Vasudha Dhagamwar, who has reportedly done a book on customary law. <i>to do</i>
24.	Current Wildlife Management practices	The topic is controversial and needs a clearer concept. A couple of good current wildlife managers could be asked to do the review.	Set of questions to be formulated by Chellam & circulate.
25.	Community based monitoring	Kamaljeet Bawa of ATREE could be asked for this, as he has been involved with such monitoring.	Bawa, and K.S. Murli, CES, Bangalore, to be asked. by Bhatt
26.	Paper industry and biodiversity	Bhattacharjee and Rodriguez to suggest names, the latter from CSE's Green Rating project.	Bhattacharjee will contact known people in this field in North East. Rodriguez will give names.
27.	Wildlife & human conflicts		Chellam to get back to TPCG. Ajay Mahajan has offered to do this sub theme, looking at community based solutions to this conflict. <i>HS Patla</i>
28.	Dams & BD	Asmita Kabra, who was involved in World Commission on Dams paper on Environment, could be asked.	Asmita Kabra to be contacted by Taneja.
29.	Biodiversity and climate change	UNDP is funding work on climate change.	Rodriguez informed that a meeting could be held with Mr. Vijay Sharma for preparation of a paper on the above topic as an interim product of that project created for NBSAP.
30.	Pesticides/ Toxics and Biodiversity	Bharati Chaturvedi	To be discussed at the TPCG meeting
31.	Integrated Biodiversity Information System	Salim Javed, AMU	To be discussed at TPCG meeting

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3.	Mining	Neeraj Vagholikar, who is currently studying mining in protected areas.	Members felt that the review should synthesise and analyse the reviews/papers already done, and assess relevant policies. Vagholikar to be commissioned this review; he has agreed in principle. Sanction to be sought from MoEF by Kothari once TPCG agrees on amount of honorarium. Suggested honorarium (month's work): Rs. 15,000.
4.	Biosafety and sustainable technologies	To be dropped because Tech and Industry group would deal with it	Dropped
5.	Community Conserved Areas	Important topic for the process; could be undertaken by some state level partners, and an overview by Neema Pathak	State level studies if anyone comes forward to do them. Overview paper to be commissioned to Neema Pathak; she has agreed in principle. Sanction to be sought from MoEF by Kothari once TPCG agrees on amount of honorarium. Suggested honorarium (month's work): Rs. 15,000.
6.	Community biodiversity based enterprise	Chiranjeev Bedi could be asked. The focus here could be case studies, which is an aspect the Economics and Valuation TWG may not look into	Chiranjeev to be contacted for doing this paper, Bhatt to informally ask him.
7.	Plantations and biodiversity	Two students of Chellam are possibilities, to look at commercial plantations and tree plantations separately.	Chellam to inquire and report. R. Jaipal / Damodaran (this seems to be a mix of two names, could someone clarify???). Has done a lot of work on coffee plantations & biodiversity. Ajith Kumar could also suggest names, Chellam to enquire.
8.	Biodiversity in the Media	Look at national media and see how biodiversity has been dealt with in media over the last decade or so. Damandeep Singh could be asked, with inputs from Jai Chandiram and Tejbir Singh?	Damandeep Singh to be contacted by Kothari.
9.	Biodiversity in EIAs	It would be a good idea to have someone actually redo the EIA procedures and guidelines to reflect biodiversity concerns, and	Devaki Panini has been asked by Shruti, has agreed in principle, issues of biodiversity to be discussed further. WII

water resource sector which will be is being addressed through small innovative initiatives.

Grassroots Outreach

The decentralisation of powers to elected bodies has emphasised the need for information to be made available at the grassroots level. The 576,000 Panchayati Raj units in India can themselves become the foundation of a system for reaching the main actors. Many of the environment projects have been working through Panchayati Raj units and have been successfully carrying out certain activities within projects with tremendous success.

In all this, UNDP Environment Programme Support to community and grassroots groups is significant through the expansion of ongoing NGO programmes such as the UNDP-GEF Small Grants Programme.

Capacity building for decision making

The major focus of this area is on the requirements of policy makers in government, of scientific and technical staff involved in standard setting and monitoring, and of those in NGOs and elsewhere involved in moulding public opinion.

Development and application of economic instruments

The development and use of Economic Instruments (EI) are necessary because they promote better environmental management by internalising environmental costs and benefits and thereby seek to induce a change towards environmentally sustainable behaviour amongst economic agents.

The effective use of EI requires the existence of a well documented data base on the inputs which are used to monetise environmental costs and benefits. Such a data base does not currently exist in India. Considerable institutional strengthening is being promoted by UNDP to disseminate the use of EI and for the creation of the necessary minimum conditions, including legislative changes, for their widespread adoption as a policy formulation and regulatory tool.

UNDP is building India's capacity through the capacity 21 programme for introduction of environmental economics into decision-making for sustainable development and the use of it as a tool in regulation, decision making and planning.

By introducing concepts of environmental economics into decision making, and by soliciting the participation of all stakeholder groups, this Capacity 21 programme will enable India to make the use and management of natural resources more sustainable. This project will serve as a catalyst for increased collaboration: Various ministries, research institute, women's groups, and other stakeholders will develop capacities for integrated environmental management of critical areas in India

		send that to the govt as a recommendation. Devaki Panini was a possibility.	could also be asked separately.
10.	Sacred groves	Dropped, as this would be a major theme in the Culture TWG.	Dropped
11.	Natural Dyes and biodiversity	Uzramma of Dastkar Andhra could be asked.	Uzramma would be contacted by Shankar.
12.	Nomadic pastoralism and biodiversity	Poornendu Kavoori, or Vasant Saberwal could be asked.	Scope could be cut down to limit to nomadic pastoralists. Kavoori has agreed to be nodal agency for Rajasthan, hence alternative needs to be found. Should we ask Vasant?
13.	Urban biodiversity	Amita Baviskar has been doing some work on this, should be asked.	Baviskar to be contacted by Taneja.
14.	Home gardens and biodiversity	PhD scholar from Kerala being searched for.	Kothari to suggest, Bhattacharjee to suggest for North-East.
15.	Public Distribution System and biodiversity	Satheesh to suggest names	Satheesh has suggested some names, decision to be made on one of them, Satheesh to suggest.
16.	Subsidies and macro-economic policies and biodiversity	Dropped because Economics and Valuation group should be dealing with this	Dropped
17.	Thermal power and biodiversity	Shekhar Singh to be asked for suggestions	Taneja to pursue with Singh
18.	Wild Biodiversity on private lands	WII has a project ongoing on this subject. Could it be tied in with this?	Wild biodiversity on agricultural lands should be considered as a sub thematic review. Satheesh to circulate a note on this and circulate to members. The larger issue of land tenurial systems should be circulated as part of the guidelines for each executing agency to look at.
19.	Tourism and biodiversity	Hari Babu of EQUATIONS, Bangalore, is working on this topic. He could be asked to do both an overview/analysis, as also a set of guidelines for executing agencies to look at this issue within their own action plan processes.	Kothari has asked Hari Babu, who has agreed in principle. Sanction to be sought from MoEF by Kothari once TPCG agrees on amount of honorarium. Suggested honorarium for both overview and for guidelines for executing agencies (5 week's work): Rs. 15,000.
20.	Innovative funding for biodiversity	Dropped because Economics and Valuation group would be dealing with this	Dropped
21.	Exotics and biodiversity	Will this be covered in Wild animal, wild plant and ecosystems TWGs?	Coordinators of the listed TWGs to be asked if they will deal with this topic, if not then TPCG will search for possible reviewers. Chellam to ask TWG coordinators
22.	People's Biodiversity	Extensive information on PBRs for conservation exists at IISc,	Shruti to contact Biswajit Dhar, and report to TPCG. Kothari

Ex-situ conservation, In-situ conservation and protected area networks are another set of important strategic interventions. The maintenance of natural biodiversity is best achieved through a network of Protected Areas (PAs), which would include National Parks, Wildlife sanctuaries, Reserved Forests, etc. UNDP sees a clear need to explore PA management models which recognise the rights of communities as at least equal to that of conservation. One good example is the Wildlife Protected Areas, Jaldapara Sub-Programme which is implementing of Eco-development and management plan through participatory approaches. The second example is the Medicinal Plants Sub-Programme is demonstrating via pilot projects medicinal plants conservation and sustainable utilisation by the local communities with various models and strategies.

UNDP continues to support to the government's ongoing forest development programme, especially to activities under the National Forest Action Plan which was developed through the support of UNDP. Other activities include facilitating the policy debate on the use and management of forest lands, and on forest legislation. Grassroots activities include support to community forestry and to Joint Forest Management.

The other unique project is the Biodiversity Strategy and Action Plan (BSAP) in the sense that UNDP supporting a policy development process that is decentralised and also the first time, has a for public participation component through sub-state sites with public hearings. The BSAP is being prepared through a broad-based participatory planning process and is being carried out at two levels. The first level will be the stocktaking and assessment of biodiversity information at the state level, identification of priorities and actions in consultation with stakeholders, NGOs and decision-makers. This would lead to the preparation of decentralised state level BSAPs. The second level will be stocktaking and aggregation of information at the national level, analysis of this information and its reconciliation with the state-level BSAPs.

Water use and management

One of the most important areas for sustaining the environmental management of natural resource is providing for the integrated management of the water resource. This includes participatory planning and management of water development projects. There are successful examples of micro-watersheds which have been revived using this approach. The watershed management approach needs to be upscaled, first to sub-catchments and then to entire river basins. Selected socio-ecological locations have acute problems requiring immediate action (such as salinization in coastal areas, deterioration of water quality in growing urban environment, etc.).

Further, encouragement of the vigorous development and promotion of technologies which conserve the use of natural resources. The UNDP Environment programme supports interventions and campaigns for the dissemination of appropriate techniques/methods/practices for the sustained use of water, including the revival of traditional water harvesting and conservation systems.

The Water Small Grants sub-programme supports and promotes community level initiatives which address the need of vulnerable groups who face serious problems in

	Registers	and in the BCPP documentation. Links of the PBR initiatives with the NBSAP process, as also cautions to be exercised, could be brought out, by someone involved with process such as Utkarsh Ghate. However, Access TWG may be dealing with this in detail, so they should be checked with.	has spoken to Ghate, who has agreed in principle. Sanction to be sought from MoEF by Kothari, in case the TWG is not taking this up itself. If so, suggested honorarium (3 weeks work): Rs. 10,000.
23.	Customary law	This could be added to the mandate for the policy, law and institutions group. However, if the group is not going to deal with this in detail, Ruchi Pant of ATREE, who has done a paper on this could be asked to do this review.	Kothari to contact & revert to TPCG. Shruti to check re. Vasudha Dhagamwar, who has reportedly done a book on customary law.
24.	Current Wildlife Management practices	The topic is controversial and needs a clearer concept. A couple of good current wildlife managers could be asked to do the review.	Set of questions to be formulated by Chellam & circulate.
25.	Community based monitoring	Kamaljeet Bawa of ATREE could be asked for this, as he has been involved with such monitoring.	Bawa, and K.S. Murli, CES, Bangalore, to be asked. by Bhatt
26.	Paper industry and biodiversity	Bhattacharjee and Rodriguez to suggest names, the latter from CSE's Green Rating project.	Bhattacharjee will contact known people in this field in North East. Rodriguez will give names.
27.	Wildlife & human conflicts		Chellam to get back to TPCG
28.	Dams & BD	Asmita Kabra, who was involved in World Commission on Dams paper on Environment, could be asked.	Asmita Kabra to be contacted by Taneja.
29.	Biodiversity and climate change	UNDP is funding work on climate change.	Rodriguez informed that a meeting could be held with Mr. Vijay Sharma for preparation of a paper on the above topic as an interim product of that project created for NBSAP.

100

REPNUM	Rec. No.	Action By	Para.	RECOMMENDATION	Response
98/017	J 43	Representative		The CO should use the "six month cash assistance rule" with flexibility and tie it to activities and not to entities to avoid the slowing down of other programme activities. This is already covered under paragraph 14 of Financial Circular 15 and has been reconfirmed by DFAM in the past.	
	44	Representative		The CO should train state offices and partners on data collection. This should allow the timely submission of statistics for the preparation of donor reports.	
	45	Representative		The CO should analyze the report process design for streamlining and elimination of unnecessary or redundant steps and together with PFO negotiate with donors realistic reporting frequency.	
	46	Representative		Set deadlines for report submission to PFO and to donors and clarify responsibilities for report submission.	
	47	Representative		The CO needs to convene with its main donors and work out a reporting format mutually agreeable to all parties.	
	48	Representative		The CO should improve its filing system and ensure that donor reports are always available for review in at least one location during the contribution life.	
	49	Representative		In line with the provisions of the Financial Circular 15, the CO should ensure that before accepting liquidations on the basis of statements of expenditure from the counterparts, a case by case assessment should be made of the soundness of internal controls in the various counterparts. If there was no reasonable assurance of good controls all original receipts and supporting documents should then be received by UNICEF for review before liquidations are made.	
	50	Representative		The counterparts should be encouraged confirm next expenditure has not been charged to any other funding source and to stamp the supporting documents as having been paid by UNICEF.	



Revised note (6/8/2000)
 in file

STATUS OF SUB-THEMATIC REVIEWS

Ask MoEF Ask Nominee

S. No.	Sub-thematic review	Remarks regarding scope and proposed reviewer	Decision by TPCG and Follow up
1.	History of biodiversity conservation	Swati Shreshth, Sultana Bashir, Mahesh Rangarajan ?	Mahesh to be contacted by Taneja, then to pursue with Sultana on her return from UK in August.
2.	Perceptions of various social sections about biodiversity	Too vast a topic to be taken up at a national level	This could be handled individually by executing agencies. A line to this effect to be added to the format of SAP by Kothari. Bhatt to provide methodologies for understanding perceptions on biodiversity to ...?
3.	Mining	Neeraj Vagholikar, who is currently studying mining in protected areas.	Members felt that the review should synthesise and analyse the reviews/papers already done, and assess relevant policies. Vagholikar to be commissioned this review.
4.	Biosafety and sustainable technologies	To be dropped because Tech and Industry group would deal with it	Dropped NV has agreed
5.	Community Conserved Areas	Important topic for the process; could be undertaken by some state level partners, and an overview by Neema Pathak	State level studies if anyone comes forward to do them. Overview paper to be commissioned to Neema Pathak.
6.	Community biodiversity based enterprise	Chiranjeev Bedi could be asked. The focus here could be case studies, which is an aspect the Economics and Valuation TWG may not look into	Chiranjeev to be contacted for doing this paper, Bhatt to informally ask him. Damodar?
7.	Plantations and biodiversity	Two students of Chellam are possibilities, to look at commercial plantations and tree plantations separately.	Chellam to inquire and report. R. Jaipal (is this a mix of two names???) has done a lot of work on coffee plantations & biodiversity. Ajith Kumar could also suggest names, Chellam to enquire.
8.	Biodiversity in the Media	Look at national media and see how biodiversity has been dealt with in media over the last decade or so. Damandeep Singh could be asked, with inputs from Jai Chandiram and Tejbir Singh?	Damandeep Singh to be contacted by Kothari.
9.	Biodiversity in EIAs	It would be a good idea to have someone actually redo the EIA procedures and guidelines to reflect biodiversity concerns, and send that to the govt as a recommendation. Devaki Panini was a possibility.	Devaki Panini to be asked by Shruti. WII could also be asked separately.
10.	Sacred groves	Dropped, as this would be a major theme in the Culture TWG.	Dropped
11.	Natural Dyes and biodiversity	Uzramma of Dastkar Andhra could be asked.	Uzramma would be contacted by Shankar.
12.	Nomadic pastoralism	Poornendu Kavoori, or Vasant Saberwal could be asked.	Scope could be cut down to limit to nomadic pastoralists.

AK

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2 AK

NP has agreed

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tivistic electrons are assumed to be mono-energetic with $\gamma_i = 7.5 \times 10^3$ and compactness $l_i = l_h$ (see Equation 2.66), with $l_{UV} = 2l_i$.

The soft photons are inverse Compton scattered to energies $\epsilon \lesssim 4\gamma^2 kT_s/3 \simeq 4 \times 10^5$ keV. For electron compactness parameter l_i smaller than a few, it follows from Equation 2.56 that the optical depth to the γ -ray photons provided by the X-rays is $\ll 1$ and pair production may be neglected. Due to the energy loss to Compton scattering the electrons then acquire a spectrum $N(\gamma) \propto \gamma^{-2}$ and the photon number density $n(x) \propto x^{-1.5}$ (see Section 1.7). The energy spectrum of the photons is therefore a combination of the black body spectrum of the soft photons and a power-law of index $\alpha_x = 0.5$. This is shown in all the three panels in Figure 2.6.4 as a dashed line.

When the compactness l_i increases beyond a few, the optical depth to the γ -rays becomes significant at the highest energy and pairs are produced, the net result being an increase in the X-ray energy density at the cost of the γ -rays. The X-ray spectral index now becomes steeper, with $\alpha_x \sim 0.6$, which is shown in panel (b) of Figure 2.6.4. The scenario becomes more interesting as l_i increases to large values and the photon-photon interactions produce a large number of pairs. The pairs cool by Compton scattering the soft radiation, and a pair cascade is obtained as described in Section 2.6.2, with $\alpha_x \rightarrow 1$ at saturation. Photons with energy $> m_e c^2 / \tau_1^2$ are down scattered, increasing the energy in X-rays at the cost of higher energy photons, producing a break in the spectrum. The pairs cool to an equilibrium Compton temperature and annihilate, producing a characteristic line. It follows from Equation 2.61 that as l_i increases the scattering optical depth due to the pairs becomes significant. The break in the spectrum due to down scattering of the photons by the pairs therefore moves to softer energy. The cool pairs then inverse scatter the UV photons to soft X-ray energy thus producing an excess. The spectra corresponding to $l_i = 30$ and 1000 are shown in panels b and c respectively. It should be noted here that details of the spectrum depend on approximations made in deriving various expressions, which differ somewhat over the literature cited.

The type of spectra described above are produced when $l_s/l_i \gtrsim 1$. When the energy in the soft photons is less than the energy injected into the electrons $l_s/l_i < 1$, the resulting spectrum can be quite different. In this case the radiation density in the X-rays produced by the scattering of the soft photons can exceed the energy density in the soft photons. Therefore it is the former which are responsible for the cooling of the relativistic electrons. The inverse Compton scattering is efficient

	and biodiversity		Sarin to contact Kavoori , after knowing if he would be taking on the Rajasthan State SAP. In case he is an alternative would have to be found .
13.	Urban biodiversity	Amita Baviskar has been doing some work on this, should be asked.	Baviskar to be contacted by Taneja .
14.	Home gardens and biodiversity	PhD scholar from Kerala being searched for.	Kothari to suggest, Bhattacharjee to suggest for North-East.
15.	Public Distribution System and biodiversity	Satheesh to suggest names	Satheesh to get back with suggestions. <i>has got back w. names, to prioritise.</i>
16.	Subsidies and macro-economic policies and biodiversity	Dropped because Economics and Valuation group should <i>would</i> be dealing with this	Dropped
17.	Thermal power and biodiversity	Shekhar Singh to be asked for suggestions	Taneja to pursue with Singh
18.	Wild Biodiversity on private lands	WII has a project ongoing on this subject. Could it be tied in with this?	Wild biodiversity on agricultural lands should be considered as a sub thematic review. Satheesh to circulate a note on this and circulate to members. The larger issue of land tenurial systems should be circulated as part of the guidelines for each executing agency to look at.
19.	Tourism and biodiversity	Hari Babu of EQUATIONS, Bangalore, is working on this topic.	Kothari has already asked Hari Babu informally, and will pursue. Wafar can also pursue this <i>Agreed to do</i>
20.	Innovative funding for biodiversity	Dropped because Economics and Valuation group would be dealing with this	Dropped
21.	Exotics and biodiversity	Will this be covered in Wild animal, wild plant and ecosystems TWGs?	Coordinators of the listed TWGs to be asked if they will deal with this topic, if not then TPCG will search for possible reviewers. Chellem to ask TWG coordinators
22.	People's Biodiversity Registers	Extensive information on PBRs for conservation exists at IISc, and in the BCPP documentation. Links of the PBR initiatives with the NBSAP process, as also cautions to be exercised, could be brought out, by someone involved with process such as Utkarsh Ghate. However, Access TWG may be dealing with this in detail, so they should be checked with.	Shruti to speak to Ghate and Biswajit Dhar, and report to TPCG. <i>AK to speak to</i> <i>Ghate has agreed.</i>
23.	Customary law	This could be added to the mandate for the policy, law and institutions group. However, if the group is not going to deal	Kothari to contact & revert to TPCG. Shruti to check re. Vasudha Dhagamwar , who has reportedly done a book on

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2.6.4 Steady State Equations

The physical processes described in the previous subsections can all be combined together to study self-consistently the behaviour of photon and electron distributions in a region. The formalism for this was developed in a long series of papers by several groups. Important steps in the development may be found in Fabian et al. (1986, hereafter F86), Lightman and Zdziarski (1987, hereafter LZ87), S87 and DF89. Useful reviews may be found in Svensson (1989, hereafter S89) and S94.

The situation considered is where energetic electrons (and positrons), either with a fixed Lorentz factor $\gamma_{\max} \gg 1$ or a power-law distribution of γ with the maximum again satisfying the condition, are injected into a spherical region of radius R . The injected energy is measured in terms of an *electron compactness parameter*

$$l_i = \frac{L_i}{R} \frac{\sigma_T}{m_e c^3}, \quad (2.65)$$

(see Equation 2.54), where L_i is the total energy injected per unit time in the form of relativistic electrons. Soft photons with luminosity L_s and compactness parameter l_s are also injected into the region. These can come from an accretion disk above which the region in which the processing occurs is located. The soft photons are inverse Compton scattered by the relativistic electrons to X-ray and γ -ray energies leading to a high energy luminosity L_h and compactness parameter l_h with

$$L_h = L_i, \quad l_h = l_i. \quad (2.66)$$

If $n(x)$ is the number density of photons of energy $x = \epsilon/m_e c^2$ and $N(\gamma)$ the number density of relativistic particles in the region, the steady state equations can be written as (LZ87)

$$\begin{aligned} \dot{n}(x) &= \dot{n}_0 + \dot{n}_A + \dot{n}_C^{\text{NT}} + \dot{n}_C^{\text{T}} - \frac{c}{R} n(\tau_C^{\text{NT}} + \tau_{\gamma\gamma}) - \dot{n}_{\text{esc}} \\ &= 0 \end{aligned} \quad (2.67)$$

$$\dot{N}(\gamma) = \dot{N}_C + P(\gamma) + Q(\gamma) = 0. \quad (2.68)$$

In these equations \dot{n}_0 is the rate of production of photons of energy x , per unit range in x , due to soft photon injection, \dot{n}_A is due to pair annihilation, \dot{n}_C^{NT} due to Compton scattering by non-thermal electrons and \dot{n}_C^{T} due to Compton scattering by thermal electrons. Photons at energy x can be removed by Compton scattering with non-thermal electrons with optical depth τ_C^{NT} and through photon-photon interactions with

		with this in detail, Ruchi Pant of ATREE, who has done a paper on this could be asked to do this review.	customary law.
24.	Current Wildlife Management practices	The topic is controversial and needs a clearer concept. A couple of good current wildlife managers could be asked to do the review.	Set of questions to be formulated by Chellam & circulate.
25.	Community based monitoring	Kamaljeet Bawa of ATREE could be asked for this, as he has been involved with such monitoring.	Bawa, and K.S. Murli, CES, Bangalore, to be asked. by Bhatt
26.	Paper industry and biodiversity	Bhattacharjee and Rodriguez to suggest names, the latter from CSE's Green Rating project.	Bhattacharjee will contact known people in this field in North East. Rodriguez will give names.
27.	Wildlife & human conflicts		Chellam to get back to TPCG
28.	Dams & BD	Asmita Kabra, who was involved in World Commission on Dams paper on Environment, could be asked.	Asmita Kabra to be contacted by Taneja .
29.	Biodiversity and climate change	UNDP is funding work on climate change.	Rodriguez informed that a meeting could be held with Mr. Vijay Sharma for preparation of a paper on the above topic as an interim product of that project created for NBSAP.

(10)

(11)

a function of energy has the power-law form $q(\gamma) \propto \gamma^{-\Gamma}$, the energy loss leads to a steepening of the spectrum, so that in the steady state the distribution of energy is $N(\gamma) \propto \gamma^{-p}$, $p = \Gamma + 1$ (see Section 1.7). The scattered photons, which end up gaining energy, develop a power-law spectrum with the number density $n(\epsilon) \propto \epsilon^{-\alpha_1}$, with $\alpha_1 = (p + 1)/2$ (see Section 2.2.2). As shown in Section 1.7, if we begin with primary scattering electrons with constant energy γ_{\max} , then the energy loss leads to a power-law electron spectrum with $p = 2$, and the scattered photons have $\alpha_1 = 1.5$. When the energy of the scattered photons extends to $> m_e c^2$ and the optical depth to photon-photon scattering is high it may be assumed that every γ -ray photon makes a pair, with the energy of the photon shared equally by the two particles. Therefore the energy distribution of these first generation pair particles is given by $N_1(\gamma) \propto n(\epsilon) \propto \epsilon^{-\alpha_1} \propto \gamma^{-\alpha_1}$. The power-law index of the injection spectrum of the first pair generation is therefore $\Gamma_1 = \alpha_1 = 1.5$. The spectrum of these particles is in turn steepened due to energy loss to Compton scattering, with the power-law index $p_1 = \Gamma_1 + 1 = 2.5$. The photons scattered by these particles acquire a power-law form with index $\alpha_2 = (p_1 + 1)/2 = 1.75$. The next generation has $\Gamma_2 = 1.75$, $p_2 = 2.75$, $\alpha_3 = 1.875$, the next has $\Gamma_3 = 1.875$, $p_3 = 2.875$, $\alpha_4 = 1.9375$ and so on with the limiting values $\Gamma = 2$, $p = 3$ and $\alpha = 2$, which corresponds to a photon energy index of 1 (see Svensson 1987, hereafter S87). In this case the cascade is said to be saturated and the injected electrons have equal power in every decade of energy, which is also the case with photons. When the pair production does not continue beyond a few generations because the maximum photon energy falls below $m_e c^2$, the photon number-index is ~ 1.9 .

2.6.3 Scattering by Cool Pairs

Pairs produced in photon-photon interactions lose energy in scattering soft photons and cool on the timescale t_{Comp} given in Equation 2.58 which is much shorter than the annihilation timescale for relativistic particles. The cooled pairs annihilate at the rate $\sim 0.4\sigma_T n_+ n_- = 0.4\sigma_T n^2$ per unit volume, where n_+ and n_- represent the number density of positrons and electrons respectively and n that of the pairs. The reservoir of cool pairs is continuously replenished by the cooling of high energy pairs and a steady state is obtained when the rate of replenishment is equal to the annihilation rate. Following Svensson (1994, hereafter S94),

STATUS OF SUB-THEMATIC REVIEWS

S. No.	Sub-thematic review	Remarks regarding scope and proposed reviewer	Decision by TPCG and Follow up
1.	History of biodiversity conservation	Swati Shrestha, Sultana Bashir, Mahesh Rangarajan ?	Mahesh to be contacted by Taneja, then to pursue with Sultana on her return from UK in August.
2.	Perceptions of various social sections about biodiversity	Too vast a topic to be taken up at a national level	This could be handled individually by executing agencies. A line to this effect to be added to the format of SAP by Kothari.
3.	Mining	Neeraj Vaghlikar, who is currently studying mining in protected areas.	Members felt that the review should synthesise and analyse the reviews/papers already done, and assess relevant policies. Vaghlikar to be commissioned this review.
4.	Biosafety and sustainable technologies	To be dropped because Tech and Industry group would deal with it	Dropped
5.	Community Conserved Areas	Important topic for the process; could be undertaken by some state level partners, and an overview by Neema Pathak	State level studies if anyone comes forward to do them. Overview paper to be commissioned to Neema Pathak.
6.	Community biodiversity based enterprise	Chiranjeev Bedi could be asked. The focus here could be case studies; which is an aspect the Economics and Valuation TWG may not look into	Chiranjeev to be contacted for doing this paper, Bhatt to informally ask him.
7.	Plantations and biodiversity	Two students of Chellam are possibilities, to look at commercial plantations and tree plantations separately.	Chellam to inquire and report. R. Jaipal Damodaran (is this a mix of two names???) has done a lot of work on coffee plantations & biodiversity. Ajith could also suggest names, Chellam to enquire.
8.	Biodiversity in the Media	Look at national media and see how biodiversity has been dealt with in media over the last decade or so. Damandeep Singh could be asked, with inputs from Jai Chandiram and Tejbir Singh?	Damandeep Singh to be contacted by Kothari.
9.	Biodiversity in EIAs	It would be a good idea to have someone actually redo the EIA procedures and guidelines to reflect biodiversity concerns, and send that to the govt as a recommendation. Devaki Panini was a possibility.	Devaki Panini to be asked by Shruti. WII could also be asked separately.
10.	Sacred groves	Dropped, as this would be a major theme in the Culture TWG.	Dropped
11.	Natural Dyes and biodiversity	Uzramma of Dastkar Andhra could be asked.	Uzramma would be contacted by Kothari.
12.	Nomadic pastoralism and biodiversity	Poornendu Kavoori, or Vasant Saberwal could be asked.	Scope could be cut down to limit to nomadic pastoralists. Taneja to contact Kavoori.



55th annual report 1999 - 2000

PROXY

I/We..... of

.....in the district of.....being member / members of

BAJAJ AUTO LIMITED hereby appoint.....

.....of.....

.....in the district of..... or failing him

.....of.....

.....in the district of.....as my/our

Proxy to vote for me / us on my / our behalf at the 55th Annual General Meeting of the Company to be held on Saturday, the 29th July, 2000 at 12.15 p.m. and any adjournment thereof.

Signed this.....day of.....2000.

Signature

30 Ps. Revenue Stamp

Folio No.
DP ID No.
Client ID No.

NOTE :

The Proxy duly completed must be deposited at the Registered Office of the Company not less than 48 hours before the time of holding the meeting.

13.	Urban biodiversity	Amita Baviskar has been doing some work on this, should be asked.	Baviskar to be contacted by Kothari.
14.	Home gardens and biodiversity	PhD scholar from Kerala being searched for.	Kothari to suggest, Bhattacharjee to suggest for North-East.
15.	Public Distribution System and biodiversity	Satheesh to suggest names	Satheesh to get back with suggestions.
16.	Subsidies and macro-economic policies and biodiversity	Dropped because Economics and Valuation group should be dealing with this	Dropped
17.	Thermal power and biodiversity	Shekhar Singh to be asked for suggestions	Kothari to pursue with Singh
18.	Wild Biodiversity on private lands	WII has a project ongoing on this subject. Could it be tied in with this?	Wild biodiversity on agricultural lands should be considered as a sub thematic review. Satheesh to circulate a note on this and circulate to members. The larger issue of land tenurial systems should be circulated as part of the guidelines for each executing agency to look at.
19.	Tourism and biodiversity	Hari Babu of EQUATIONS, Bangalore, is working on this topic.	Kothari has already asked Hari Babu informally, and will pursue.
20.	Innovative funding for biodiversity	Dropped because Economics and Valuation group would be dealing with this	Dropped
21.	Exotics and biodiversity	Will this be covered in Wild animal, wild plant and ecosystems TWGs?	Coordinators of the listed TWGs to be asked if they will deal with this topic, if not then TPCG will search for possible reviewers.
22.	People's Biodiversity Registers	Extensive information on PBRs for conservation exists at IISc, and in the BCPP documentation. Links of the PBR initiatives with the NBSAP process, as also cautions to be exercised, could be brought out, by someone involved with process such as Utkarsh Ghate. However, Access TWG may be dealing with this in detail, so they should be checked with.	Kothari to speak to Ghate and Biswajit Dhar, and report to TPCG.
23.	Customary law	This could be added to the mandate for the policy, law and institutions group. However, if the group is not going to deal with this in detail, Ruchi Pant of ATREE, who has done a paper on this could be asked to do this review.	Kothari to contact & revert to TPCG. Shruti to check re. Vasudha Dhagamwar, who has reportedly done a book on customary law.
24.	Current Wildlife	The topic is controversial and needs a clearer concept. A couple	Set of questions to be formulated by Chellam & circulate.

Account No	:
No. of Shares	:

FORM 2B

NOMINATION FORM

*[To be filled in by individual applying singly or jointly
(if jointly, only upto two persons)]*

I/We and the holders of shares bearing number(s) of M/s I.T.C. LIMITED wish to make a nomination and do hereby nominate the following person in whom all rights of transfer and/or amount payable in respect of shares shall vest in the event of my/our death.

Name and Address of Nominee

Name :

Address :

.....

.....

Date of Birth* :

(*to be furnished in case the nominee is a minor)

** The Nominee is a minor whose guardian is

Name and Address :

.....

.....

(** To be deleted if not applicable)

[To be filled in by the shareholder(s)]

Signature :

Name :

Address :

Date :

Signature :

Name :

Address :

Date :

Signatures of two Witnesses

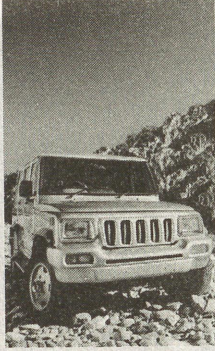
	Name and Address	Signature with date
1.		
2.		

Instructions :

1. The Nomination can be made by individuals only applying/holding shares on their own behalf singly or jointly upto two persons. Non-individuals including society, trust, body corporate, partnership firm, Karta of Hindu Undivided Family, holder of power of attorney cannot nominate. If the shares are held jointly all joint holders will sign the nomination form.
2. A minor can be nominated by a holder of shares and in that event the name and address of the Guardian shall be given by the holder.
3. The nominee shall not be a trust, society, body corporate, partnership firm, Karta of Hindu Undivided Family or a power of attorney holder. A non-resident Indian can be a nominee on repatriable basis.
4. Nominations stand rescinded upon transfer of share.
5. Transfer of share in favour of a nominee shall be valid discharge by a company against the legal heir.

(Applicable only in respect of physical shareholding)

	Management practices	of good current wildlife managers could be asked to do the review.	
25.	Community based monitoring	Kamaljeet Bawa of ATREE could be asked for this, as he has been involved with such monitoring.	Bawa, and K.S. Murli, CES, Bangalore, to be asked.
26.	Paper industry and biodiversity	Bhattacharjee and Rodriguez to suggest names, the latter from CSE's Green Rating project.	Bhattacharjee will contact known people in this field in North East. Rodriguez will give names.
27.	Wildlife & human conflicts		Chellam to get back to TPCG
28.	Dams & BD	Asmita Kabra, who was involved in World Commission on Dams paper on Environment, could be asked.	Asmita Kabra to be contacted by Taneja.
29.	Biodiversity and climate change	UNDP is funding work on climate change.	Rodriguez informed that a meeting could be held with Mr. Vijay Sharma for preparation of a paper on the above under that project.



Mahindra Holdings & Finance Limited



 **Mahindra**

STATUS OF SUB-THEMATIC REVIEWS (as of 21.1.2002)

Commissioned reviews:

SI No.	Sub-thematic review	Reviewer affiliation &	Amount Sanctioned & when	Status of 2 nd Installment	Deadline	Current status	Follow up / remarks
1.	Mining	Neeraj Vagholikar, Kalpavriksh	Rs. 25,000 5.1.2001		3-4 months	1 st draft received	
2.	Community Conserved Areas in Gujarat	Sujit G. Kumar or Mudrakartha VIKSAT	Rs. 30,000 5.1.2001		6 months	1 st draft commented on by Kalpavriksh, 2nd draft received , commented upon by Bhatt.	Comments awaited from Neema Pathak, Kalpavriksh, so that joint comments can be sent to the reviewer
3.	Tree Plantations and biodiversity	A.Damodaran IIPM	Rs. 20,000 9.4.2001			1 st draft commented on by Kothari and Wafar, reviewer has promised the revised draft shortly.	Expected 15 th March
4.	Biodiversity in the Media	Vinod Pavarala University of Hyderabad	Rs. 30,000 & Rs. 20,000 from DDS 4.5.2001		3-4 months	Had indicated that the review will be taking fewer newspapers than originally planned. Reviewer attended the Southern regional workshop and indicated that the paper would be ready by end Jan 2002	Satheesh to follow up for status Satheesh
5.	Biodiversity in EIAs	Devaki Panini Independent Consultant	Rs. 32,000 5.1.2001		3 months	1 st draft commented on by Kothari, Kohli and Kalpavriksh. Comments sent. Reminder for second draft sent	Shruti to follow up for status. Needs urgent follow up
6.	Natural Dyes and biodiversity	Uzramma Dastkar Andhra	Rs.10,000 27.2.2001	2 nd installment sanctioned	2 months	1 st draft commented on by Kothari and Padmanabhan. Revised 2nd draft received . Darshan has commented on this, comments to be sent.	
7.	Nomadic pastoralism and biodiversity	P.Vivekanandan, Member, LIFE network	Rs. 30,000 9.4.2001	2 nd installment sanctioned on 1.9.2001, and		1st draft and a second revised version received.	

Shruti looking at policy chapter

Shruti to call up

Send to PCB

				subsequently released.			
8.	Urban biodiversity	Ulhas Rane BNHS	Rs. 20,000 2.5.2001			1st draft commented on by Kothari, Kohli and Padmanabhan. Comments sent. Comments also sent by Utkarsh Ghate. Reminder for second draft sent. Reviewer has indicated that it will be ready by end of Feb 2002	Also sent to Madhav, Utkarsh, Bittu, Dilnavaz, Aasheesh, Ravi (SRISTI), Dhruvajyoti, Dr. Ghosh, Baskaran, and Rajamani for comments
9.	Home gardens and biodiversity	V.Santhakumar Centre for Development Studies	Rs. 25,000 2.5.2001	2 nd installment sanctioned on 1.9.2001, and subsequently released.		1 st draft commented on by Kothari and Wafar. Revised second draft received.	
10.	Thermal power and biodiversity	Sagar Dhara Independent Consultant	Rs. 30,000 9.2.2001			Reviewer was unwell hence the delay. Reminder sent. Full paper expected in March and a 2-page synopsis prior to that.	Synopsis rec'd
11.	Tourism and biodiversity	Hari Babu EQUATIONS	Rs. 30,000 9.4.2001		2 months in proposal	1 st draft received Comments sent by Kohli and Bhatt	Vinod, Mohideen
12.	Dams and biodiversity	Raghu Ram IGDRI	Rs. 30,000 9.4.2001			First draft expected by Nov 20 th . Reminder sent by Kothari on Dec 11 th . Draft expected shortly. Reminder email sent by Kothari on 1 st Jan, 2002 and 12 th Feb, 2002	Needs urgent follow up MC call
13.	Pesticides/ Toxics and Biodiversity	Bharati Chaturvedi Chintan Environmental Research and Action Group	Rs. 30,000 5.1.2001		3 months in proposal	1 st draft received on 31 st Dec. Comments sent by Kohli, Padmanabhan and Kothari. Has been sent for comments to Nityanand Jayraman, Bittu Sahgal, Manu Gopalan, Asad Rahmani.	Reviewer has indicated gaps due to lack of information from SACON, Sandeep Tambe, and ATREE. Kothari to enquire from

Reminder

MC
Send to
Rajiv Bh. &
Claude/NoemaAsad
Rahmani

							Tambe.
14.	Remote Sensing	N. Prasad SACON	RS. 30,000 9.2.2001 (however he received sanction notice only in April due to some email problem)		August	Reviewer has indicated that over a 100 pages are already done and that the draft will be sent soon	Needs urgent follow up
15.	Non-pastoral nomads	P.K. Mishra Independent Consultant	Rs. 25,000 2.5.2001		Indicated needing 2 to 2.5 months	1 st draft commented on by Kothari, Bhatt, and Padmanabhan. Comments sent.	
16.	Customary Laws and Biodiversity	Ruchi Pant, ATREE	Money sanctioned from Action Aid (linked to Laws/Policies TWG)			1st draft received. Comments sent by Asif of the Laws TWG	Shruti is commenting on it. Comments to be sent.
17.	Community Based Monitoring	Kamaljit Bawa, ATREE	Voluntary			1st draft received, Seema/Neema to comment	
18.	Important Bird Areas	Supriya Jhunjhunwala, BNHS, is in charge of the Important Bird Area Project, which wants to link up to NBSAP	Voluntary			1st draft received. Kothari has asked the reviewer to expand the suggested actions and has indicated that the paper will be commented upon after this is done.	
19.	Environmentally friendly and alternative technologies	George Varghese /Lata Raman Development Alternatives	Rs.30, 000 9.7.2001		Draft to be ready by mid-October 2001	1 st draft commented on by Wafar, Kohli and Padmanabhan. 2 nd draft received. Padmanabhan has indicated that it is not too different from the 1 st draft	Vibha to urgently comment, & speak to George
20.	Agricultural Biotechnology and Globalisation	Devinder Sharma, Forum for Biotechnology and Food Security.	Rs. 30,000 9.7.2001		Draft by October	Reviewer has indicated that he is working on the paper. Reminder email sent by Kothari on 1 st Jan, 2002	Needs urgent follow up Vibha to call

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21.	Integrated Biodiversity Information System	Salim Javed, Aligarh Muslim University	Voluntary September 2001		3 months	Javed has asked for information on ENVIS, NCL, NIC, sent by Kothari. Kothari has asked whether a short format for the review can be prepared. Reviewer has prepared a questionnaire, which has been sent to ENVIS, NCL, BAU, and IGCMC. Also indicated that the paper would be ready by January. Reviewer has asked whether he should wait for responses to the questionnaire or go ahead and finalise the paper. Kothari has indicated that the paper be completed.	<i>MC Reminder</i>
22.	Conventional Technologies	Narendra Mehrotra, National Institute of Rural Industrialization	Rs. 15,000 11.10.2001		3 months	Reviewer was not aware of sanction till Nov 26 th , as he did not receive the mail informing him about the sanction. Has agreed to expand the scope of the paper to include a range of typical technologies and their impacts on biodiversity.	<i>MC Reminder</i>
23.	Wildlife & human conflicts	Suraj Saigal and Nidhi Gureja, WTI	Money sanctioned from TWG Wild Animals (Rs. 15,000)			1 st draft received in Dec 2001. Comments sent by Ajith Kumar, Cheryl Nath.	Comments from Atul Gupta awaited. Inability to incorporate all comments has been expressed by WTI

24.	NTFP	(a) Balachandra Hegde (NTFP in Western Ghats) (b) Shruti Sharma, Forest Research Institute	(a) Voluntary (b) Voluntary			(a) 1 st draft received, commented on by Kothari and Padmanabhan, comments sent. Reviewer has indicated that he will be able to revise the draft only after 15.2.02 (b) Draft promised by Dec 18 th . Reminder sent on 31.1.02	(b) Needs urgent follow up.	<i>KK to follow</i> <i>Ravi to follow up</i>
25.	Indigenous Knowledge and Biodiversity	Deep Narayan Pandey, Indian Institute of Forest Management	Rs. 20,000 3.12.2001		3 months	Rough draft received which is in two parts with a theoretical background and one page, which is India specific.	Being commented upon by Bhatt and Shankar. Comments to be sent.	<i>Send Sr paper to him</i>
26.	Public Distribution System and biodiversity	P. V. Sathesh	Voluntary			Indicated that detailed paper	Since there was no progress with the follow up with Reddy, Sathesh agreed to do the paper and also a one page write up on the PDS which could be distributed to the executing agencies. TO BE DONE.	<i>Darshan to see</i> <i>Sathesh to put together dossier</i>
27.	Bamboo and Cane	V. Giriraj, KVIC	Voluntary				Reviewer visited the KV Pune office and met Padmanabhan. Has agreed to give in a paper, based on his earlier work on the subject, and contact A.C. Lakshmana for inputs. Stated that he will not be able to give a scientific paper (i.e., detailing species etc), but will concentrate more on livelihood issues.	<i>MC Reminder</i>

							Mails to Giriraj have subsequently been bouncing. Lakshmana agreed to do a paper on conservation of rattans, which is almost ready.
28.	Exotics and indigenous biodiversity	R.S. Rana, New Delhi	Rs. 10,000 1.2.02			Brief outline of the paper received.	
29.	Research on agricultural biodiversity	Dr. Sunil Archak of NBPGR, Delhi and Dr. Tejaswani of Hittalagida network	Rs. 5,000 each 1.2.02				
30.	Paper industry and biodiversity	Binode Baruah	Needs to be clarified whether it is voluntary?			1 st draft received. Padmanabhan has indicated that it is a good first draft. Bhattacharjee requested to contact Baruah for electronic version	In the 20 th TPCG meeting it was indicated that we drop this review since there was no response.

PCB to send info on subsidies on fish in food.

PCB to ask Tripathi for memorandum

Reviews in the pipeline:

S. No.	Sub-thematic review	Remarks regarding scope and proposed reviewer	Decision by TPCG and Follow up
1.	Current Wildlife Management practices	The topic is controversial and needs a clearer concept. A couple of good current wildlife managers could be asked to do the review.	Set of questions formulated by Chellam & circulated. Kothari has sent comments. Chellam asked to revise the questions and make a preliminary list of officials and NGOs that it could be sent to. Reminder sent to Chellam by Kohli.
2.	Climate change and Biodiversity	UNDP is funding work on climate change.	Kothari has been in communication with Mr. Sudhir Sharma of TERI, Convenor, GEF project. Has asked for suggestions on how to carry this forward, but no progress on this for last couple of months. Kothari has discussed with Dr. R. Sukumar (CES/IISc), who has agreed to do it, but can start only in July, Kothari responded asking if the paper could be given by August, reply awaited. Meeting with officials of UNDP and MoEF to link up GEF project on this with NBSAP, did not take place at 16 th TPCG meeting. Sudarshan to give a

Ask Ravi

KK/Vininder to get work material on this (Prakash Rao, GCMC Director)

			list of topics; Kothari to request NPD to ask Subadh Sharma for the information. Kothari has requested R.Sukumar for a brief note.
3.	Wildlife Epidemiology	P.K.Malik, WII	Chellam has sent inputs on what the review should entail. Kothari has written to Malik on 18.9.2001, who agreed to do the paper. However there has been no news about the current status, despite reminders sent by Kothari. Formal letter expressing discontent sent to WII.
4.	Industrial Siting		Kohli wrote to Sagar Dhara who suggested the names of G.D.Agarwal and Paritosh Tyagi. Shruti contacted Tyagi who declined. Kohli has sent a letter to Agarwal to sound him out on his willingness to do the review. Agarwal has indicated his inability to carry out the review.
5.	Child labour and biodiversity	Natural resource destruction as a cause of child labour. Nandana Reddy of Concern for Working Children	Padmanabhan written to Reddy about possibility of a review, tentative response expressing interest received, more firm response awaited. Kothari sent reminder on 23.9.2001, and Padmanabhan on 21.10.2001. Reddy has promised to get back very soon after discussions with her colleagues as to whether a person will have to be hired to put some of the information together. Reminder sent by Padmanabhan on 15 th December. Reddy responded saying that a proposal has been sent for consideration. Padmanabhan has clarified that we have not received it as on 14.1.02. No response after that.

PCB to pursue

Abandon

Latest?

*Wastelands
x
biodiv.*

*Shomita
Mukherjee*

*Domestic trends
in biotech.
research rel-
to biodiv.*

*Dr.
Ramanjaneya*

*(Sathesh
to send
contact
details)*