

ENVIRONMENT

An exercise in conservation

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India's biggest environment and development planning exercise involving biological scientists, Dalits and Adivasis gets under way.

A DIVERSE collection of people, ranging from hardcore biological scientists to Dalit women, from senior bureaucrats in the Government of India to Adivasi rights activists in central India, people from different backgrounds and persuasions, are taking part in what is arguably India's biggest ever environment and development planning exercise: the National Biodiversity Strategy and Action Plan (NBSAP).

* In northern Andhra Pradesh, Dalit women from 20 villages are evolving an action plan to promote livelihoods based on traditional seed diversity, a people-managed public distribution system (PDS), and sustainable agriculture;

* In Uttara Kannada district of Karnataka, scientists, academics, forest officials and activists are combining to work out a plan to conserve the biodiversity of the district;

* Across the Western Ghats, experts and activists have started a series of meetings to evolve a conservation plan for the eco-region spread across four States;

* In the West Garo Hills of Meghalaya, tribal communities are holding a series of public hearings as part of a planning exercise to conserve biological resources and use them sustainably;

* The Planning Commission is considering the setting up of a working group to integrate biodiversity concerns across various developmental sectors, for the Tenth Five-Year Plan;

* Punjab, Assam and Andhra Pradesh have set up steering committees consisting of government officials, non-governmental organisations (NGOs), farmers and others to draft State-level biodiversity action plans;

* Working groups of experts have begun to put together action plans on a range of national themes relevant to biodiversity and the environment, such as health, livelihoods and lifestyles, culture, economics and evaluation, wild plants and animals, natural ecosystems, micro-organisms, technology and industry;

* A unit of the Central Silk Board is working on an action plan for silkworm and silkworm tree diversity;

* A national workshop on Adivasis and biodiversity is planned to be conducted by the All India Coordinating Forum of Adivasi/Indigenous Peoples, with between 60 and 80 tribal participants from various regions;

* Art students in Hyderabad have made a number of posters for this purpose; and

* A biodiversity festival is planned to celebrate the value and ethical dimensions of biodiversity.

Over the next year and a half, hundreds of groups and thousands of individuals will take part in this process at various levels. They will assess the policies and actions relating to nature and natural resources. They will look at sectors as wide-ranging as agriculture, fisheries, forestry, wildlife, industry and mining, and health and education, to recommend measures to sensitise them to the need for the conservation of biological diversity and the protection of rural livelihoods dependent on such resources.

For much too long, Indian planners have ignored the enormous and central role of biological

diversity, which makes the earth tick. The diversity of cultures associated with it is a critical component of human civilisation. As such, biodiversity is essential for:

1. Maintaining the ecological functions, including stabilising of the water cycle, maintenance and replenishment of soil fertility and pollination and cross-fertilisation of crops and other vegetation, protection against soil erosion and stability of food-producing and other ecosystems;
2. Providing the base for the livelihoods, cultures and economies of several hundred millions of people, including farmers, fisherfolk, forest dwellers and artisans;
3. Providing raw material for a diverse medicinal and health care system, both for the 'informal' people's sector (which uses thousands of plants for medicinal purposes) and the traditional/modern pharmaceutical sector; and
4. Providing the genetic base for the continuous upgradation of agricultural (including livestock and poultry) and fisheries production systems, and for critical discoveries in scientific, industrial and other sectors.

Yet, in a classic case of cutting the branch on which we sit, humans have severely eroded biodiversity. In India, as elsewhere in the world, habitat destruction, hunting and over-exploitation, pollution, introduction of exotic plants and animals, and other factors have led to this erosion. Of India's 130,000 or so known species of plants and animals, perhaps over 10 per cent, are threatened with extinction. Several dozen (we are so ignorant we do not even know how many) species of wildlife - the cheetah and the pink-headed duck, for instance - have already gone extinct.

The rapid erosion of the country's biodiversity in the last few decades has impacted on the health of the land, the waterbodies and the people. Unfortunately, no comprehensive estimates exist, but there are some clear indications:

1. The loss of soil fertility, caused partly by the destruction of soil organisms and the decline in organic inputs from forests, is causing an annual loss of several thousands of millions of rupees in agricultural productivity;
2. The loss of productivity in forests due to degradation, according to the Tata Energy Research Institute, is causing the economy a loss of over Rs.5,700 crores worth of wood alone (this, apart from the large number of non-timber forest produce that are lost);
3. The decline in species and varietal diversity in agriculture is making farmers suffer loss due to climatic conditions and pest attacks as also market failures, often leading to drastic steps like suicide;
4. The transformation of mixed forests into single-species plantations, or diverse coastal ecosystems into monocultural shrimp farming, is leading to a loss in nutritional and livelihood inputs for large numbers of Adivasis, other forest-dwellers and fisherfolk.

Worldwide, the purely economic losses associated with the destruction of biodiversity amount to hundreds of billions of dollars. If someone were to calculate such losses for India, the figure would probably form a major chunk of the gross domestic product (GDP). Unfortunately, none of our planning exercises has ever taken this into consideration. The benefits of biodiversity are often "hidden", and consequently the costs of its destruction are not factored into planning and budgeting exercises. But if one were to calculate the cost of employing millions of people to perform the scavenging role of vultures (now dying for mysterious reasons, possibly pesticide poisoning or viral disease) and the pollination and cross-fertilisation role of bees and birds (many of which are threatened by pollution and habitat loss), or the cost of putting up thousands of industries to gulp in polluted air and produce fresh air, or the cost of providing health services to millions of people who have been deprived of their diverse traditional grains, wild foods, and medicinal plants... perhaps then we would wake up with a start.

It is this alarm that the NBSAP hopes to raise, along with concrete ways to deal with the crisis, including re-orientation of the planning process in the development and welfare sectors.

THE NBSAP has grown partly out of the realisation that society is headed on a suicidal course. It was conceived of in response to the international, legally binding treaty, the Convention on Biological

Diversity (CBD), signed in 1992. The CBD, which has been ratified, requires countries to prepare national strategies and action plans and attempt to integrate biodiversity concerns into various economic and developmental sectors. In 1998, the Government of India submitted a proposal to the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP) to fund the preparation of such a plan. In 1999, this proposal was accepted, and the GEF/UNDP agreed to provide nearly \$1 million (about Rs.4.5 crores) for its execution.

There was nothing extraordinary about the process; it was like any other application for funds to a foreign donor. However, in a highly unusual move, the Union Ministry of Environment and Forests (MoEF) decided to invite NGOs to steer the technical execution of the project. From a shortlist of six Delhi-based national NGOs, the 20-year-old group Kalpavriksh was chosen for this task. Kalpavriksh proposed the idea of setting up a Technical and Policy Core Group (TPCG), consisting of a range of experts and activists, to plan and implement the process. The MoEF accepted this, and simultaneously chose Biotech Consortium India Ltd. (BCIL), a public sector consultancy organisation set up through the Department of Biotechnology, to handle the administrative aspects of the project. Earlier a steering committee consisting of officials from various relevant Central Ministries and four non-official experts was set up to guide the process. This committee is chaired by the Special Secretary at the MoEF Dr. A.K. Kundra.

Starting January 2000, the MoEF (where Joint Secretary R.H. Khwaja is currently the National Project Director) and the TPCG will have an elaborate multi-layered process to prepare the NBSAP. Instead of the usual sequence of a national plan or policy being followed by State- or regional-level plans, the NBSAP has reversed the process. Action plans will be prepared at four levels: about 20 local (sub-State) sites (see map), all the States and Union territories of India, about 10 inter-State eco-regions (see map) and 14 national level themes. All these plans will then be built into the national-level plan. However, even before this national plan is finalised, any of the other plans can be pushed for implementation. In other words, the plans for Bilaspur in Madhya Pradesh, Nahin Kalan in Uttaranchal, the Aravalli and the Shiwalik ranges in western/northern India and several others will remain independent, and can be implemented provided the institutional and financial resources are available.

At each of these levels of planning, the TPCG has nominated nodal agencies and coordinators, around which advisory or steering committees are to be formed. These teams will be multi-sectoral, involving diverse people from both within and outside government. Some examples:

* In the Gondwana forest belt eco-region, which cuts across Maharashtra and Chattisgarh, District Collectors, forest officials, NGOs and Adivasi activists form the core and advisory committees, coordinated by the Vidarbha Nature Conservation Society; in a sub-region of this, two districts of Maharashtra are taken up for detailed planning by a similar composition of people coordinated by the health NGO, Amhi Amachya Arogyasathi;

* In the Uttara Kannada sub-State site, the Fisheries, Forest, and Agriculture departments are joint coordinators with fish workers unions, forest-dwelling activists, and organic farmers, in developing the various themes that will go into the action plan, while the process is being coordinated by a biology Professor from A.V. Baliga College;

* In Goa, the Forest Department and one of the State's most radical groups, the Goa Foundation, are teaming up to prepare an action plan;

* In the north coastal belt of Andhra Pradesh, a forum of grassroots organisations, the Grameen Punnarnirmana Kendram, has put together a committee of teachers, farmers, Adivasis, self-help women's groups, the Integrated Tribal Development Agency and traditional vaidus to prepare the plan;

* In the Thematic Working Group on Wild Animal Diversity, experts on groups ranging from insects to mammals and officials experienced with handling wildlife conservation are working under the coordination of a scientist from the Salim Ali Centre for Ornithology and Natural History;

* In the Simlipal and Mayurbhanj areas of Orissa, joint forest management committee members, NGOs, and Project Tiger officials are working on an action plan with the NGO forum, MASS, forming the hub;

* In Alwar district of Rajasthan, villagers who have come together to form the Arwari Sansad (parliament of the Arwari river basin), are working out ways to conserve natural resources in a 400 sq km area.

Eventually there will be about 60 to 70 such teams working at various levels.

THE NBSAP process recognises that biodiversity encompasses a wide range of concerns and issues. Of course, primary among these is the sustenance of the diversity itself, and its various components - wild animals and plants, agricultural crops and livestock, micro-organisms, natural and agricultural ecosystems - and the vital processes that make and link them. To this end, hard questions of assessing the status of habitats and species, building up indicators for judging biological quality and identifying the threats to biodiversity are being addressed. What is already emerging is the frightening lack of understanding about biological processes: Indians do not even know the full extent of biodiversity in India, let alone the rate and scale at which it is being lost.

But it is also clear that the process has to go beyond this into critical social, economic and political issues. Who uses biological resources and for what? Who takes decisions on how to use resources? Who benefits from such use and who loses out? Do our planning and budgeting exercises take into account the enormous values of biodiversity, and if not, how should they? How are rural people's livelihoods dependent on biodiversity, and how is this link being broken? How is food security for the poor linked to biodiversity? What impact does biodiversity loss have on people's health and culture? What kind of technologies are ecologically friendly and which are not? Is biotechnology really the answer to our food and health problems? What can be the response to biopiracy by both national and multinational corporations and institutions? Are patents desirable or not?

These are complicated questions, and many of the groups within the NBSAP process are trying to address them squarely. In their preliminary meetings, participants have detailed out responses and potential answers. Meetings along the West Coast, for instance, have already brought out overwhelming evidence that mechanised trawling has caused destruction of marine resources and disruption of fisherfolk's lives, so the action plan must address this issue. Several local and State-level processes are taking a critical look at the policies and programmes of the Forest, Fisheries, Agriculture, and other relevant departments, to see what changes are needed to make them biodiversity- and livelihood-friendly.

Apart from the main action plan, the TPCG is also identifying a number of sub-thematic areas that need serious review. For instance, experts are being asked to assess the lacunae in the current procedures of environmental impact assessment (EIA), or to put together available information on the impact of pesticides on wildlife. An overview paper on the mining industry's impact on biodiversity and another on the increasing trend of communities conserving their surrounding natural habitats are proposed.

Neglected topics such as natural dyes, nomadic pastoral and non-pastoral communities and the links between the PDS and biodiversity are slated for such critical reviews. And while a range of people look at traditions and community-based systems, others may be assessing the importance of the latest satellite and computer technologies to biodiversity; how, for instance, can remote sensing help in more effective conservation?

The cornerstone of the NBSAP process is participation. The involvement of a range of people has been seen to be so important that the TPCG and the MoEF have spent several months simply planning the process and identifying several hundred people from diverse sectors. The TPCG has prepared and printed about 25 methodology notes and concept papers to guide the participating agencies. A national level workshop was held in June 2000 to acquaint the participating agencies with the process. Separate meetings and orientation sessions are being held and all agencies encouraged to organise public hearings, even for particular interest groups. Assistance is given to organise an all-India workshop on adivasis and biodiversity, linking to the NBSAP.

One interesting feature is the "Call for Participation": 35,000 copies of this small, attractive brochure in 16 languages are being distributed, across the country, with a promise that whoever responds to it will be involved in the process. Some of the participating agencies, such as the Assamese nodal agency and the Assam Science Society, have translated the brochure into the Bodo language. All agencies are encouraged to work in local languages, including the production of the final action

plan, if necessary. According to the UNDP, which is funding the NBSAP exercises in several countries, this kind of multi-linguistic approach is unique to India.

A full-fledged media campaign is being launched under the NBSAP, with a provision to train participants who want to do their own media and public outreach programme at their respective sites. The regional media - Kannada, Telugu, Assamese and Punjabi, among others - have already been addressed.

A bi-monthly newsletter, "NBSAP News", keeps participants informed of one another's activities and a web site (sdnp.delhi.nic.in/nbsap) is available for public access. Virtually all documents and information coming out of the process are available to the public, on the web site or by request.

There are a number of hurdles that the NBSAP will have to confront. Several State governments have been reluctant to involve NGOs and community representatives on their action plan committees; they will have to be encouraged to do so. Many agencies do not have access to the kind of information needed to generate a credible action plan. Conflicts and contradictions in the perceptions of different stakeholders could undermine the attempt to arrive at consensual recommendations. Various Ministries and line departments that impinge on biodiversity may simply ignore the exercise.

The critical questions that the NBSAP process faces are: Will the effort actually change the way people conduct their affairs and will the government change its direction and functioning? The best of plans and the most strident pieces of legislation can become ineffective if they are not backed by political will and economic and social resources. But certain elements of the process provide hope. For all agencies have been asked to go to the root of the problem, and suggest concrete ways - even changes in policies, laws, programmes and budget allocations - to tackle them; they are being encouraged to suggest ways to integrate biodiversity through the planning process; in what could be a significant breakthrough, the Planning Commission may set up a working group to integrate biodiversity into the various sectors of the 10th plan; elements of the action plans will help implement the proposed Biological Diversity Bill, which in turn could lend authority to the NBSAP outputs; and powerful people's movements and NGOs are likely to be able to use the biodiversity action plans as tools for change.

The greatest hope, however, is generated by the process itself. It will be hard for the government or other agencies to ignore the work of thousands of individuals and groups. If they do, these individuals and groups will hopefully mount pressure to force implementation. That could be the most critical difference between the current exercise and several previous ones. Action plans developed before this had a handful of owners and their non-implementation did not generate any significant outrage.

It is worth mentioning that the NBSAP coordinators have clearly indicated two bottom lines for each action plan: greater ecological security (for the site and for the country) and greater livelihood security for people dependent on biodiversity. Anything that violates these will have to be exposed as being against the principles of conservation, unsustainable and inequitable.

At the very least, the NBSAP process will lead to a nation-wide churning of ideas, fresh ways of visualising society and its relations with nature, an in-depth questioning of developmental and economic dogmas, and, most important, lessons on how to transform centralised, top-heavy planning processes into truly participatory, ground-up ones. Indeed, the final result of this process, the action plans themselves, may be less important than the process of churning.

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