

Seeds of the future

The Fourth Conference of Parties of the Biodiversity Convention has taken several landmark decisions, and some of them have major implications for India.

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* *Terminator Technology.* No, not a film, but the label of the latest biotechnology nightmare, in which seeds are genetically altered in such a way that they fail to germinate after the first generation. This latest bid by the seed industry to control the world's food supplies aims at forcing farmers to buy seeds from the company each time. The patent holders are the U.S. Department of Agriculture and Delta and Pine Land Co., a large U.S. corporation.

* *Patents on basmati rice and turmeric, both in the United States.* Two of the myriad products from the Indian sub-continent that foreign companies are attempting to monopolise.

* *Large-scale bleaching of coral reefs off the African coast.* Possibly a result of global warming causing a great rise in water temperature. Apart from the threat it poses to the unique marine wildlife, the death of reefs could spell ruin for the rich fisheries in the region.

THESE were just three of the startling facts discussed by government representatives at the Fourth Conference of Parties of the Convention on Biological Diversity held in Bratislava, Slovakia, from May 4 to 15. Aware that urgent action was necessary to counter such trends, and that hundreds of non-governmental agencies (NGOs) and representatives of the indigenous peoples of the world were watching every move, government delegates hesitated but made definite progress towards achieving the objectives of the significant international treaty.

The Convention on Biological Diversity (CBD) was signed in 1992 in the context of the catastrophic loss of living organisms and natural habitats worldwide (some estimates suggest that species are disappearing at the rate of one species an hour). The CBD, which has been in force since 1993, is a legally binding treaty that

has been ratified by more than 170 countries. It contains provisions with three distinct thrusts: the conservation of biodiversity (including ecosystem, species and genetic diversity), the sustainable use of biological resources, and the equitable sharing of benefits arising from such use among countries and with local communities.

The CBD has been increasingly recognised as one of the few international tools with significant potential not only to reverse the planet-threatening ecological decline but also to redress the great inequalities that characterise relations among and within nations. Such inequalities, for instance, allow U.S. corporations and scientists to steal India's biodiversity and the knowledge of local communities, or allow the industrial world to continue to warm the earth's atmosphere and thereby endanger marine biodiversity and fishing populations in Africa. Perhaps the best indicator of the potential of the CBD is the fact that the U.S. is the only major country that has *not* yet ratified it. The biotechnology industry in the U.S. is fearful of the possibility of coming under a regulatory regime and losing its clout.

The CBD also contains important provisions regarding indigenous and other local communities, including the need for countries to respect the knowledge and practices of their people that are relevant to biodiversity, to seek their permission for the wider use of such knowledge, and to share equitably any benefits arising from such use. In other words, perhaps for the first time, communities that have lived close to and depended on nature more than the rest of the general population, and who have contributed enormously to the store of human knowledge relating to nature, could get their due.

The CBD's main decision-making body is the Conference of Parties (COP), which consists of delegates of all the ratifying countries. At the latest (fourth) meeting of the COP, the CBD moved further into the implementation phase, as most of



the contentious issues had already been debated in previous meetings. COP4 did not necessarily resolve these issues but there was at least a willingness to move beyond debate into some kind of action.

Led by a Joint Secretary of the Ministry of Environment and Forests (MoEF), a four-member delegation from India participated in COP4. Union Minister for Environment and Forests Suresh Prabhu took part in a two-day ministerial meeting that was held back-to-back with the main conference. In



(Top) Tiger skins being burnt; (above) streams and forests. Only strict adherence to an international convention, such as the Convention on Biological Diversity, can save biodiversity before it gets consumed by human greed.

In addition, representatives of three Indian NGOs and a tribal people's network were present as observers.

SOME of COP4's major decisions that have significant implications for India's economic and environmental pol-

icy are:

1. Conservation of biodiversity in different ecosystems: Recognising the fact that levels of habitat and biodiversity loss are severe across the world, COP4 initiated or finalised work programmes at national and international levels on forests, agricultural biodiversity, marine and coastal ecosystems and inland waters. All these focussed on the need to understand better the impact of human activities (including factors such as economic policies, trade, land rights, consumerism, and poverty) on the biodiversity of these ecosystems. They stress that conservation of biodiversity should become a part of the economic activities going on in these ecosystems, rather than be restricted to small patches of protected areas. This could be done especially by integrating biodiversity values into environmental impact assessment (EIA) procedures. COP4 highlighted the importance of traditional community knowledge and practices for the conservation and sustainable use of these ecosystems.

Although it has in place the EIA and other clearance procedures, India has a long way to go before the conservation of biodiversity becomes an integral part of economic and developmental planning. The 1990s have perhaps seen the most severe attack on natural resources, as economic liberalisation and globalisation made a mockery of environmental norms. Nothing short of a drastic re-orientation of the way forests, waterbodies, marine areas and agricultural lands are treated is required in order to save them from being destroyed. More stringent EIA procedures, alternative developmental projects, greater

focus on appropriate technologies, and most important of all, the full participation of local communities in the management of these ecosystems are needed.

2. Access and benefit-sharing: In the backdrop of the continuing piracy of tropical biological wealth by the indus-

trialised nations, COP4 decided to continue working on establishing legal, policy, and administrative measures to ensure that access to genetic resources among countries results in the equitable sharing of benefits. Some countries such as the Philippines have put into place legislation that regulates access to their biological resources. Other instances exist of benefit-sharing arrangements between countries or local communities and pharmaceutical companies. This experience was shared and assessed by COP4 participants, and the need for each biodiversity-donor country to have legal and administrative measures was stressed. India also wanted access legislation to be applied not only in donor countries but also in recipient countries (often in the industrialised world), to seek importers of genetic material to prove that they have adhered to the provisions of the convention and to the laws of the donor countries. Unfortunately, this demand was not accepted at COP4.

Among the most contentious issues discussed was the ownership of genetic resources collected and stored in gene banks around the world before the CBD was signed (about five lakh million samples of cereals, millets, pulses and so on, mostly taken from tropical countries such as India). Until recently, these gene banks were not under democratic international control, and were used by industrial countries and corporations to great profit. They are now being put under the control of the Food and Agriculture Organisation, but it is not yet clear who will own the germplasm that has, for instance, gone out of India to these banks. One demand is that any use of this material be done only with the permission of the country of origin, and only if benefit-sharing arrangements with that country are part of the deal. Despite years of discussion, however, these issues have yet to be resolved.

Clearly, India should continue to demand the rights to its genetic resources stored in international collections and seek support from other Group of 77 countries to coerce the industrialised countries to put into place access legislation.

3. Indigenous and local communities: In perhaps its most significant decision, COP4 agreed to set up a Working Group to deal with issues relating to indigenous and local community rights to biodiversity, traditional knowledge and practices, and the equitable sharing of benefits with such communities. This

Working Group will consist of not only government delegates but also indigenous and local community representatives, chosen by such communities themselves. COP4 also asked countries to have consultations with such communities on various aspects of the CBD, and to submit case studies on the interaction between traditional and other forms of knowledge, the impact of formal laws and policies on communities, the integration of community knowledge into development and resource management processes, the involvement of communities in decisions regarding the conservation and use of resources, and systems of protecting traditional knowledge.

India should immediately begin a process of consultation with representatives of the tribal people and other local communities, regarding follow-up action to the above decision. This should include a process of selecting community representatives to take part in the Working Group.

4. Trade and intellectual property rights:

COP4 witnessed considerable discussion on the relationship between the CBD and trade-related international regimes, in particular the agreements under the WTO such as Trade Related Intellectual Property Rights (TRIPS). Many countries, including India, pointed out the contradictions between the two. In particular, the TRIPS clauses on patents and other intellectual property rights on life forms (Article 27.3b) were singled out as being potentially conflicting with the objectives of the CBD.

However, disappointingly, COP4 rejected a strong plea to ensure that the WTO/GATT/TRIPS combine does not undermine the objectives of the CBD. India made the innovative suggestion to make public all patent applications through the CBD's clearing-house mechanism (an information collation and dissemination system), so that countries and communities could raise objections to any of them in advance. This demand was, however, not accepted by COP4. But delegates did stress the need to "ensure consistency in implementing the CBD and the WTO agreements," and invited the WTO to take this into account while reviewing (in 1999) its specific clauses relating to intellectual property rights on life forms (Article 27.3b).

COP4 also noted the need to develop systems to protect indigenous/local community intellectual rights, and to ensure that existing IPR systems and these are mutually supportive. It welcomed the decision of the World Intellectual Property Organisation (WIPO) to look into these aspects. In a pleasant surprise, it asked for an assessment of the impact of the Terminator Technology.

5. Public education: COP4 reiterated the need for countries to undertake widespread educational measures related to biodiversity. However, it stressed that such measures should be sensitive to specific cultural contexts. It also suggested



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that countries translate the CBD provisions into local languages and promote their dissemination through means ranging from traditional non-formal to sophisticated modern electronic processes.

Although significant progress has been made in India in integrating environmental issues into the educational system, considerable work is still needed to inculcate ecological values (and not just information) in children, especially in the urban areas, and to make the links among biodiversity, equity, livelihood and development. Making education sensitive to highly specific cultural and ecological contexts is still a neglected area.

6. Providing incentives for conservation: COP4 urged countries to develop positive incentives for conservation and sustainable use of resources, remove perverse incentives (such as subsidies to ecologically destructive technologies and processes), and consider the economic, social, cultural, and other values of biodiversity while taking decisions regarding

its use.

India's economic policies are mostly geared against conservation. In agriculture and other sectors, they systematically reduce the value of diversity and subsidise destruction by pushing homogenous practices and technologies. The Green Revolution is a clear example of this. Agricultural agencies have been slow to realise that the erosion of agrobiodiversity (for example, of the thousands of varieties of rice that farmers once grew) reduces the options for future agricultural growth, makes farming much more vulnerable to catastrophic events (the cotton disasters of the 1990s are examples), and renders farmers hopelessly dependent on government and corporate agencies. A range of economic and social incentives is needed to encourage the maintenance of biodiversity on farms and pastures, fisheries, and forests.

In several decisions, COP4 stressed the need to apply the precautionary principle, which states that action should not be stayed simply because of the absence of 'adequate' scientific evidence. Such a principle has been applied in the case of climate change agreements and is crucial to the CBD, since it is often difficult to prove conclusively that there is (or will be) irreversible damage to biodiversity. A considerable amounts of economic activity will need to be re-oriented under this principle, as there is sufficient indication that it may be causing such damage.

SEVERAL national actions need to flow from the decisions made at COP4, many of them continuing from actions that India should have taken as a follow-up to the CBD. Amongst them are the following:

1. Finalisation of a *National Biodiversity Action Plan*, focussing especially on how various economic sectors such as mining, industry, agriculture, fisheries and tourism can be re-oriented to support biodiversity conservation and sustainable use, as also what perverse incentives have to be done away with and what positive incentives have to be provided.

Such an action plan has been under formulation since 1994, when an Expert Group was set up by the MoEF to draft it. However, a draft produced after con-

siderable work, in 1995, was kept aside by the MoEF for two years. A revised draft, rather badly crafted, was produced in 1997, and it was severely criticised by NGOs.

Now the Government of India has sought, and obtained in principle, aid worth nearly \$1 million from the Global Environment Facility, to finalise the action plan and strategy. NGOs have demanded that this be used to make the process more participatory and open than it has been now.

2. Promulgation of a *notification regulating access* to India's biological and genetic resources by outsiders, specifying the terms and conditions under which such resources can be transferred across the border.

Once again, a committee set up by the MoEF in 1994-95 had drafted such a notification, but the Government did not promulgate it. Then, in 1997, a new committee was formed, which produced a fresh draft (along with other legal measures), which is currently under consideration. Patents on turmeric (1997) and basmati (earlier this year) were obtained by the U.S.-based scientists and companies after the first draft was prepared, and while its promulgation may not have stopped these patents, India's case against them would have been much stronger had it been able to show a piece of legislation which regulates access to the country's biodiversity.

3. Finalisation of *legal measures*, including changes in the existing Acts, which can ensure conservation and sustainable use of biodiversity and equitable sharing of benefits arising from such use.

A committee of the MoEF drafted an outline legislation on biodiversity in 1994-95, but as in the case of earlier drafts, this too was shelved. A new committee prepared a fresh draft in 1997, which, however, is deficient (*Frontline*, April 17, 1998). Indeed, it may be wiser to amend existing acts to achieve much of what the CBD requires of India (for example, enhancing the protection of wild biodiversity through the Wild Life Protection Act of 1972; integrating biodiversity concerns into EIA procedures under the Environment Protection Act of 1986 and so on), and only put into place new legislation for what is completely missing in existing laws.

4. Analysis of the impact of domestic

and international *trade*, and of *intellectual property rights* regimes (including TRIPS) on the objectives of the CBD. In particular, India should show how trade and IPRs that are currently in place serve to destroy biodiversity and increase wealth and power inequalities across the world. Such analysis, along with case studies, can be transmitted to relevant bodies of the CBD, the World Trade Organisation (WTO), and the WIPO. India needs especially to continue to apply pressure to reform current IPR regimes (including TRIPS) so that they are more supportive of biodiversity and local community interests. It must keep



A tribal person with Bauhinia leaves. As a follow-up to the COP4 decision to set up a Working Group on Indigenous and local communities, India needs to begin consultations with representatives of tribal people.

up pressure in the Committee of Trade and Environment of the WTO, in order to harmonise the trade regime in accordance with the provisions of the CBD.

5. Promulgation of measures to protect the *rights of local (including tribal) communities*, their knowledge and access to livelihood resources, and to involve them in biodiversity conservation and sustainable use measures. This should also apply to government land such as forests and waterbodies, including protected areas.

This is the area where the existing drafts of the biodiversity action plan and legislation are the most deficient. Now that recent constitutional amendments have made genuinely decentralised decision-making possible, governments must move towards community-based or joint management systems for all types of natural ecosystems. Joint forest management programmes, though deficient from many points of view, are helping in the process of regenerating and protecting millions of hectares of land. Such pro-

grammes should be extended to protected areas, wetlands, and marine areas too.

6. Finalisation of India's *National Report* to the CBD Secretariat, in which it is supposed to describe how it has followed up on the CBD's provisions. India has only submitted an Interim Report, which was written in a thoroughly non-consultative and secretive manner in a short period before COP4. This draft must be made open to public scrutiny and finalised after a participatory and transparent process.

CAN India be more pro-active than it has been in the last two to three years, and lead from up front with bold and creative suggestions in order to achieve the objectives of the CBD? Several decisions of COP4 provide it an opportunity to do so, and some of its own statements at the meeting were strong enough to give indications of a renewed zeal. In the years following the signing of the CBD, the MoEF sought and obtained considerable NGO input into the follow-up actions it initiated. Unfortunately, such a process has been conspicuously absent in the last two to three years; indeed, the MoEF has been particularly resistant to NGO and community inputs.

At COP4 too, India was disappointingly silent when countries such as Brazil asked for curbs on NGO participation in the meeting. The Indian head of delegation (unlike other members of the delegation) made little attempt to consult the Indian NGOs present on any of the agenda items, despite the latter's attempts to open a dialogue.

However, Minister Suresh Prabhu, in informal talks with Indian NGO observers during COP4, agreed on the need to have an open and transparent process of decision-making with regard to the follow-up to the CBD. He promised a meeting on the issue soon after COP4.

It is to be hoped that he and his officials will act on these assurances. They ought to start by making the draft National Report on Biodiversity public, and calling a series of consultations at national and local levels on the decisions of COP4. ■

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