

socio-cultural-ecological environment modify the manifestations and therapeutic responses which demand re-evaluation of knowledge generated elsewhere<sup>1,2</sup>.

Even though we failed to heed the recommendations of our experts, resulting in preventable morbidity for thousands of unsuspecting children, it would still be worthwhile to take serious note of the suggestions made by John for future programmes for polio eradication. The same could apply to HIV/AIDS spreading epidemic. If nobody else does it, cannot the medical and science academies get together and

produce critically-evaluated policy statements and pursue these with the Government on one hand and enlighten the general public on the other? I must confess that I cannot absolve the scientific community (including myself) of its ivory tower approach to such crucial issues of vital national interest. It is too serious a matter to be relegated to the correspondence column of a scientific journal, howsoever prestigious it may be. I am conscious that my individual efforts in such matters in the past have not borne fruit, but I am not willing to give up appealing to our collective conscience.

1. Tandon, P. N., *Curr. Sci.*, 1997, **72**, 98-99.
2. Tandon, P. N., The Chandrasekhara Venkata Raman Medal Lecture, delivered on 31 December 1997, Indian National Science Academy, in press.

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## NEWS

### Access to genetic resources and traditional knowledge: Priorities for national and regional actions

With the coming into force of the Convention on Biological Diversity (CBD) from 29 December 1993, 171 countries who are signatories (parties) to the Convention have agreed upon implementing the provisions enshrined in CBD, namely: i) Conservation of biodiversity; ii) Sustainable use of biodiversity and, iii) Fair and equitable sharing of benefits arising from the use of such biodiversity.

Articles 15 and 16 are directly related to benefit-sharing and access to technology and are also linked to Article 8(j) dealing with traditional knowledge. In order to prepare different countries in the South and Southeast Asian Region for the forthcoming Conference of Parties (CoP-IV), a regional workshop on 'Access to Genetic Resources and Traditional Knowledge' was convened at the M. S. Swaminathan Research Foundation, Chennai, India between 22 and 25 February 1998. This workshop was sponsored by the IUCN-The World Conservation Union.

Articles 8(j), 15 and 16 are the most contentious of the CBD provision with almost every country trying to answer questions like: Who owns what? Who can access what? How access can be controlled? Whose knowledge is used?

How does the knowledge lead to generation of benefits? How are the benefits to be shared? How fair and equitable should the sharing be? Apart from these, the most practical problems which countries like Philippines, Indonesia and Malaysia are facing (who have developed national legislations on access to genetic resources) are those of how the benefits will reach a community and in what form.

With several oppositions from the proponents of the theory that biodiversity prospecting or value addition to biodiversity is nothing but biopiracy, there is an urgent need for us to create a sense of understanding in the minds of policy-makers on these issues, to help them develop practical and meaningful regulations or legislation in their respective countries.

Several of South and Southeast Asian countries face similar challenges in terms of social, economic and cultural needs. With increasing interest to bring together the countries of the region on common issues, this workshop had the participation of country representatives.

From 14 countries in the South and Southeast Asian region, one senior-level policy maker and one technical expert

were invited to this workshop with experts from 6 other countries. A questionnaire was sent to all country focal points (CBD) to let their representatives prepare a country report on the following terms of reference relating to three major points of discussion: (i) Benefit sharing, (ii) Traditional knowledge and, (iii) National planning process for access and benefit sharing.

Country reports and several case study papers relating to the above issues were received. All these were tabled for discussions in small group sessions and in plenary also.

On the first day, issues relating to benefit-sharing were discussed with two plenary presentations relating to emerging issues in South and Southeast Asia (SSEA) and India followed by presentations on legislative and non-legislative mechanisms, role of commercial seed sector in sharing benefits, experiences from Philippines on their Executive Order (E.O. 247) relating to access and benefit-sharing, the regional approaches in Andean Pact countries. These were followed by group discussions on ASEAN and SAARC region countries who identified the processes and policies to implement Access and Benefit Sharing (ABS) issues in their

respective countries, both pre-CBD and post-CBD.

On the second day, issues relating to traditional knowledge, indexing such knowledge, how the knowledge can be used to generate benefits using experiences of the Shaman Pharmaceuticals and Healing Forest Conservancy, USA and the Tropical Botanic Gardens Research Institute, Thiruvananthapuram, India were discussed. The emerging interest of the World Intellectual Property Organization (WIPO) in considering the indigenous people's knowledge to internalize them in the IPR regime was also discussed followed by plenary discussions on traditional knowledge and benefit-sharing.

A public meeting on access to genetic resources and traditional knowledge was organized to create awareness on these issues.

Debating on national planning processes to address ABS issues, on the final day, both legislative and non-legislative issues were debated. The participants arrived at developing a consensus set of recommendations for consideration by their respective countries on ABS and traditional knowledge issues and developed an 'Agenda for Action: From Chennai (Madras) to Bratislava'.

Some salient points of the recommendations are:

The participants welcomed the inclusion of 'Matters related to benefit sharing' as item 16 on the agenda for COP-IV. They requested Governments which will be participating in COP-IV to consider seriously the following suggestions relating to the implementation without delay of the provisions of the CBD relating to access, benefit-sharing, prior informed consent and protection of traditional knowledge systems and rights (Articles 7, 8, 9, 10, 11, 12, 14, 15, 16, 17 and 18 of CBD).

Governments participating in COP-IV were urged to take urgent steps to harmonize the provisions of TRIPS with the equitable benefit-sharing and prior informed consent (PIC) provisions of the CBD. What is urgently needed is a new global trade and transactions order – a 'TRIPS Plus' – where 'Plus' refers to equity and ethics in IPR claims. Since the same Governments are members of both the World Trade Organization and the CBD, there is a need for coordinated action in matters relating to biodiversity. In this context, the participants welcomed the recent move of the WIPO to consider questions relating to according recognition to traditional knowledge systems and informal innovations.

Pending the enactment of suitable legislation to give effect to the provisions of the CBD, they urged countries in this region to introduce immediately steps such as codes of conduct for both academic researchers and commercial entrepreneurs and companies, and information and material transfer agreements for the purpose of implementing the PIC and benefit-sharing provisions of the CBD.

Legislations to control matters relating to access to genetic resources and traditional knowledge is required but the legislation should be based on a sound understanding of the nature and extent of demand for genetic resources and should be linked to national needs and the legislation should be prepared through wide stakeholder participation.

In spite of the variability inherent in cultural and political systems and in spite of the complexities involved, it is essential that immediate national and regional action be taken to implement the PIC and benefit-sharing provisions of the CBD. An integrated

package of legislative and non-legislative measures should be introduced, appropriate to the conditions of each country. While conservation and benefit-sharing measures need to be country-driven, there is scope and need for a Regional Biodiversity Access and Benefit Sharing agreement among countries in this region. They welcomed the call made by ASEAN for a common protocol on access and benefit-sharing among member-states. A request was made to SAARC countries to develop a similar common protocol. The Secretariats of ASEAN and SAARC were requested to initiate steps to promote consultation and information exchange which can lead to reciprocity and concerted action in matters relating to access to genetic resources among countries both within and outside the region.

The Governments could also facilitate private sector involvement in the commercialization of biodiversity through know-how licenses, material transfer agreements (MTAs) and information transfer agreements (ITAs). Suitable codes of conduct could be developed and enforced by the companies themselves.

Need for industrialized countries to enact legislation which supports the implementation of the PIC and benefit-sharing provisions of CBD was also discussed.

M. S. Swaminathan Research Foundation and IUCN are soon bringing out a joint publication on the recommendations to be followed by a detailed proceedings, including case studies and country papers.

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## Declining amphibians

Amphibians became the first land-dwelling vertebrates when they developed from fishes over 350 million years ago, but the members of our four-footed ancestors are rapidly declining. Information regarding most amphibian

declines is anecdotal. Factors that may be contributing to amphibian population declines include habitat destruction, excessive use of chemical pesticides and toxic effluent from industries.

In India so far, 205 plus species of amphibians have been recorded. Amongst various biogeographic zones, Western Ghats are the richest with 120 species of which 92 are endemic. According to the IUCN (International