



Biodiversity Regime, Emerging Challenges and Opportunities

Mangalore : 22 May 2008

Conservation of diversity of flora and fauna of the Earth had been in the agenda of environment conscious individuals and organisations for several decades. Since the Convention on Biological Diversity (CBD) in 1992 at the Earth Summit in Rio de Janeiro, 'Biological Diversity' has become a catchword.

As per the obligations as a party to the Convention, India has introduced its domestic legal regime by enacting the Biological Diversity Act in 2002. The provisions of this Act, CBD and the rules of Trade Related Intellectual Property Rights (TRIPS) have rendered the issues pertaining to biological diversity into a serious subject of study and debate.

Biological diversity is no more a topic of biology alone, as it has acquired various dimensions. There are a multitude of challenges to be tackled regarding biodiversity resources. At the same time, several opportunities are also emerging in the field of studies, research, advocacy, trade, IPR etc. In order to fully exploit the emerging opportunities, we need to create awareness and educate the people, especially the younger generation about the various issues. This Seminar was conceived with that objective. It could not have been appropriate on any day other than the 22nd May 2008, as the International Biodiversity Day was observed all over the world on that day.

Respecting the importance of the subject, Central Marine Fisheries Research Institute (CMFRI) had established a dedicated division for Marine Biodiversity. Mangalore Research Centre of CMFRI had done commendable work in the assessment of Marine Biodiversity of Karnataka. It is felt rightly to convene a seminar on such an important topic at Mangalore, especially for the benefit of the people of Karnataka.

Inauguration: The inaugural function started at 0950 hours on 22 May with opening remarks by the Convener Dr. K. Vijayakumaran. He mentioned that biodiversity has emerged as an interdisciplinary area and this is no more a subject of biology alone. He focused on the urgent need for sensitising the stakeholders, academics and students on different facets and dimensions of biodiversity regime.

Following a silent prayer, Dr. A. P. Dinesh Babu, Scientist-in-Charge and chairman of the Seminar welcomed the participants. Dr. N.G.K Pillai, Director, Central Marine Fisheries Research Institute, Kochi inaugurated the seminar by lighting the traditional lamp. He also released a CD containing resources for the benefit of stakeholders and students.

In his inaugural address he touched upon the importance of biodiversity and highlighted the relevance of sensitising the people about conservation and management. Pointing out the destructive fishing practices, he said that over exploitation had led to the depletion of catfish resources from coastal waters. He also mentioned that projects like Sethusamudram will have an impact on the biodiversity of Gulf of Mannar and Palk Bay, adding that this observation was without prejudice to the developmental imperatives. Developmental activities like Sethusamudram Project are very important, he added. The need of the hour is to tune our development activities to minimise the impact on biodiversity and environment, he said. Adding that measures should be taken to safeguard the biodiversity of the area where such development activities are undertaken.

Dr. H. Sivananda Murthy, Director of Extension, Karnataka Veterinary, Animal Sciences and Fisheries University and Dr. B.R. Venkatesh, Director, Geological Survey of India spoke on the occasion, highlighting the need for biodiversity conservation. Dr. P.S. Swathilekshmi proposed a vote of thanks and the session closed with the National Anthem at 1055 hrs.



Dr. N.G.K. Pillai lighting the auspicious inaugural lamp



Dignitaries on the dais



Inaugural address by Dr. N.G.K. Pillai, Director, CMFRI

Presentations: The technical session began with the presentation on the Legal Regime on Biodiversity, by Dr. B.K. Ravindra, Principal, SDM Law College, Mangalore. He elaborated on the provisions of the Convention on Biological Diversity (CBD) and in the Biological Diversity Act. He mentioned that these laws, the relevant rules and the institutions established for implementing them were very comprehensive to achieve the objectives of conservation and equitable benefit sharing of biodiversity. He pointed to the need for educating people and stakeholders on the legal aspects of Biodiversity Conservation.





The second presentation was on the Biodiversity in Ayurveda by Dr. T. Sridhara Bairy, Head of the Department of Dravyaguna, SDM Ayurveda College, Udupi. Taking the audience to a treasure trove of the use of diverse flora and fauna in ayurveda, and highlighting the rich heritage of traditional medicine, he emphasised the need for conserving biodiversity, popularising the traditional knowledge and protecting the same from exploitation by others.

Dr. Ramachandra Bhatta, Professor and Head of the Department of Fisheries Economics spoke on the issues of Economic Valuation of Biological Diversity and ecosystem services. He highlighted the difficulty of economic valuation of non-market commodities, especially related to our cultural and traditional value systems. The need for promoting research in the field was emphasised.

The fourth presentation was on Climate Change and Biodiversity by Dr. E. Vivekanandan, Principal Scientist and Head, Demersal Fisheries Division, CMFRI, Kochi. He presented an outline of the emerging issues related to global climate change and focused on the impact of climate change on marine biodiversity. Apart from species loss, the shifting of fish population distribution, coral bleaching, impact on turtles etc., were touched upon by the speaker. This presentation attracted a lot of questions and a discussion. Concluding the presentation, Dr. Vivekanandan stressed on the need for changing our lifestyle to mitigate the impact of climate change.

The presentation on Marine Biodiversity of Karnataka unraveled a wonderful world of marine life along the coastal Karnataka. This presentation, by Dr. P.U. Zacharia Senior Scientist of Tuticorin RC of CMFRI and Principal Investigator of Karnataka Marine Biodiversity Project, was studied with a generous supply of colourful photographs of flora and fauna. The speaker revealed that this study for the first time reported the unique, rich and diverse reef ecosystem around Netrani Island and highlighted the need for protecting the same as a biodiversity heritage site. He also mentioned the need for taking up further studies especially on little known areas such as ecology of marine birds.

The sixth presentation was by Dr. K.K. Vijayan, Head of the Division of Marine Biotechnology, CMFRI on Biotechnology in Biodiversity Research and Conservation. The speaker gave an overview of the latest developments in the biotechnology and molecular genetics and explained the possibilities of its application in the conservation of biodiversity. He clearly explained the use of DNA fingerprinting in identifying the species even from a small bit of body part of the animal or plant. He expressed confidence that biotechnology would

revolutionise human life in the coming years, provided adequate measures would be taken to promote HRD and research in the field of biotechnology.

The seventh presentation was on Bioinformatics tools for Biodiversity Conservation by Dr. Santhosh J Eapen, Senior Scientist and Coordinator of Bioinformatics Division of Indian Institute of Spices Research, kozhicode. He presented lucidly the emerging world of bioinformatics and the enormous scope for bioinformatics in biodiversity regime. The need for developing database on various aspects of our rich and diverse biological resource is a daunting task and there is tremendous scope for research and development in that area, he said.

The eighth presentation on Trade Related Aspects of Biodiversity by Dr. K.S. Mohamed, Principal Scientist and Head, Molluscan Fisheries division, CMFRI, Kochi was one of the key presentations pertinent to the Biodiversity Regime. The speaker explained the intricacies of the trade barriers and provisions under the Trade Related Intellectual Property Rights (TRIPS). Touching on the provisions of UNCLOS, the role of WTO and the dispute settlement mechanisms, he gave the example of how disputes on trans-boundary resources like swordfish were settled. Emphasising the need for understanding the rules of the trade to take advantage of the global trade opportunities properly, he cautioned that there would be need to embark on capacity building on this aspect.

The last presentation was on the Challenges and Opportunities of Biodiversity Regime by Dr. K. Vijayakumaran, Senior Scientist Mangalore RC of CMFRI. He said that the emerging Biodiversity Regime is another inconvenient truth and urged all members of the society to play a key role transforming the game to a winning situation. Training and capacity building, restructuring and expanding the HRD scenario and promoting partnership among government, research organisations, civil society organisations and other stakeholders were identified as urgent needs of the time.

Conclusion: The seminar came to a close with a brief summing up of the proceedings by Dr. S.M. Siva Prakash, College of Fisheries, Mangalore and a concluding remark by Dr. N.G.K Pillai, Director, CMFRI. Based on the subjects presented at the Seminar and the deliberations that followed, the following recommendations were read out by Dr. K. Vijayakumaran, the Convener of the Seminar, were made.

Recommendations

- Initiate programme to educate public on the biodiversity Act, CBD, and the provisions under the law to safeguard the interests of the community.

- Sensitise the stakeholders about our rich traditional knowledge in flora and fauna, especially in traditional medicine, promote their documentation and equip the communities with knowledge and capacity to safeguard their knowledge from exploitation by outside agencies.

- Initiate research for validation of the concepts of our traditional systems of medicine in the context of modern scientific methods of clinical testing and protocols.

- Promote research on valuation of biodiversity and ecosystem service to develop standard methods to suit the Indian value system.

- Sensitise the people on climate change and its impacts with outreach programmes for making them adapt to the situation. Embark on education programmes to change the lifestyle of people to mitigate the climate change scenarios.

- Promote conservation of unique marine biodiversity hot spots such as Netrani Island by declaring them as biodiversity heritage sites and take up studies on marine birds on which there is very little information.

- Evolve exclusive criteria for listing of marine organisms in Red List.

- Promote research in bioactive compounds, bioinformatics and database creation for facilitating the country to exploit the resources in a judicious way.

- Promote research in molecular genetics, to take advantage in the field of disease diagnosis, gene transfer technology etc and strengthen the country's stake in biotechnology globally.

- Initiate programme to revise and restructure the school and college curriculum and introduce new courses to sensitise the importance of biodiversity among young generation and cater to the needs of Biodiversity regime.

- Promote partnership between different organisations for sharing resources and working together for meeting the challenges of Biodiversity Regime.

The Seminar was attended by students and faculty from College of fisheries, Mangalore University, St. Aloysius College, SDM Law College, SDM Ayurveda College and several other institutions in the city. Members of civil society organisations from various parts of Karnataka, fishermen's associations, government departments and a large number of media persons also participated in the Seminar. The seminar was organised by the funding from the institute. School Book Company partially sponsored the Seminar kit. The Seminar attracted a lot of media attention and was appreciated as an excellent event in terms of content as well as the style of conducting it.

