SCIENCE AND CULTURE



REMEMBERING THE INTERNATIONAL DAY FOR BIOLOGICAL DIVERSITY (IDB)



The 22 May designated as the International Day for Biological Diversity (IDB) was observed this year in various government and nongovernment organizations as in past years. The May 22 was proclaimed by the United Nations as International Day for Biological Diversity in order to increase the awareness, importance and

understanding of the biodiversity issues at global level. In fact, the first designated day of IDB was declared as 29th

December in 1993, i.e. the date of entry into force of Convention the on **Biological** Diversity (CBD). But in course of time, this appeared difficult for many countries to plan, work, and celebrate the Day in befitting manner for the reasons that a number of holidays coincided around that time of each late December. As a matter of fact, in December 2000, the United Nations General

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Assembly adopted 22 May as IDB in view of commemorating the adoption of the text of the Convention on Biological Diversity on 22 may, 1992 by the Nairobi Final Act of the Conference. Since then each anniversary of this date was designated as International day for Biological Diversity for observance and celebration.

This year the theme selected was "Island Biodiversity" which represents unique but fragile ecosystems comprising many plant and animal species, usually endemic to the island and found nowhere else on the earth. These natural resources are irreplaceable treasures and are susceptible to vulnerability leading to extinction for some species in future. We all are familiar with an "Island", a piece of natural geographical land surrounded by water. The Millennium Ecosystem Assessment defines islands as "lands isolated by surrounding water and with a high proportion of coast to hinterland", being populated

and separated from mainland by a distance of at least two kilometers. These islands are characterized by various important features i.e. the number of inhabitants, size or area, altitude, distance from nearest landmass. whether these islands are "continental" or "oceanic" in nature. If continental, the land areas are used to be connected to the mainland and in case of oceanic, the island is supposed to rise

from the sea as a result of coral deposits, volcanic activity or tectonic forces. On a global basis, the islands include about three percent of world's surface and endemic species in particular, comprising one third of the world's conservation hotspots belonging to islands. The islands are very much susceptible to the impact of climate change and hence exposed to loss of biodiversity at an alarming rate. Over the times, the isolation of the island from the main landmass exerts profound pressure on it and results into the creation of rich ecosystems and potential sources for species evolution. Consequently, new characteristics are evolved with diverse adaptation and genetic variability in island dweller species.

Referring to the world scenarios for some islands, 90% or more species are endemic in Hawaiian island. In

Mauritius, about 50% of higher plants, mammals, reptiles, birds, amphibians are endemic in nature. Similarly, Sevchelles represents the highest level of endemism for amphibians. Cuba has 18 endemic mammals. We know that Madagascar is the fourth largest island of the world and a home for 5% of world's plant and animal species. About 8000 species are endemic to this island.

ozone depletion are creating hazards to humans. The unabated population growth followed by over-exploitation of natural resources, increased use of toxic chemicals as fertilizers for better yield in agriculture, extensive farming, etc. are some of the causal factors for gradual decline of biodiversity.

In India, the Andaman and Nicobar group of islands are rich in floristic group. About 3000 taxa of angiosperms, pteridophytes, bryophytes, lichens, etc. occur in these islands. A considerable number of species are endemic there, and even a good number of species are not found in mainland India. Lakshadweep, the Union Territory of India is not much important from the view point of island biodiversity. The vegetation is a blend of Malesian, Polynesian and Australian affinity.

We remember with great concern that the island ecosystems are of tremendous value to about 600 million island dwellers for the supply of food, water, shelter, medicines and other natural resources for the sustenance of everyday lives. In view of the fact, the world attention was drawn to island biodiversity. Various national governments, NGOs and other development agencies have established an international platform under the title Global Island Partnership (GLISPA) to assist conservation and adopt sustainable use of natural resources of islands.

The observance of International Biodiversity Day reminds us various issues regarding the sustainable use of our bioresources, their protection and conservation. We can plan the conservation methods both at *in situ* and *ex situ* conditions for the plant and animal resources. National Biodiversity Authority, different government and nongovernment agencies have been doing commendable jobs and planning various programmes for biodiversity issues. As in other years, this year too, the West Bengal Biodiversity Board (WBBB) has observed the International Day for Biological Diversity on the 22nd May, 2014 by arranging a seminar. They distributed papers, folders, booklets, etc. to arouse the consciousness, concerns among the common people on the occasion of the day of the

The continuing greenhouse effects and

celebration of IDB. Moreover, the WBBB under the banner of National Biodiversity Authority (NBA) arranges seminars, workshops, conference, field training programmes, nature study audio-visual camp, programmes for creating awareness amongst the common people. The Botanical Survey of India (BSI) also arranged a programme to observe the IDB on the same day, 22

May in Central National Herbarium. In this programme, the BSI invited students, researchers, scientists, teachers, people from NGOs, who participated in the discussion on the main theme 'island biodiversity' and related aspects befitting to the observance of International Day for Biological Diversity. The BSI authority also made provisions for the display of posters, distribution of brochures for creating awareness amongst the people from different sectors.

We are conscious about the global climate change. Such changes occur due to changes in pattern of precipitation, evaporation, frequency of storms, fire in the forest, sea level rise, pollution intensity of air, water and soil, etc. The continuing greenhouse effects and ozone depletion are creating hazards to humans. The unabated population growth followed by over-exploitation of natural resources, increased use of toxic chemicals as fertilizers for better yield in agriculture, extensive farming, etc. are some of the causal factors for gradual decline of biodiversity. On the occasion of observance of the IDB. these issues attract our attention for effective remedial measures.

The natural ecosystem on the planet has been altered by humans, some to the point of collapse. Vast numbers of species of plants and animals have gone prematurely extinct. Genetic diversity has eroded, and the climate of the planet have been disrupted. The main cause of such vast environmental changes are the cumulative impacts of billions of people with stress to ecological support systems of the planet and their powers of resilience. As a consequence, biological diversity (biodiversity), the grand result of evolutionary processes is at stake and rapidly declining.

In view of creating consciousness and increasing understanding and awareness regarding the important role of biodiversity resources in our future, the observance of IDB has been introduced by the Secretariat of the Convention on Biological Diversity, which is part of the United Nations Environmental Programme. The recommended activities in this regard include:

"Translating booklets, leaflets and other educational resources into local languages.

Distributing information on biodiversity via schools, colleges, universities, newspapers, radio and television.

Exhibitions and seminars for students, professionals and the general public.

Showing of movies on environmental issues.

Presentations of programs to preserve endangered species or habitats.

Planting trees and other plants that help prevent erosion."

Keeping in mind the above issues, we may appreciate the needs of observance of International Day for Biological Diversity on May 22 every year. As biodiversity represents different habitats, biological communities and ecological processes, it is valuable natural as well as genetic resources for the survival of mankind. Therefore, through the observance of IDB, we may arouse understanding the gravity and importance of biodiversity amongst the people around the globe for their protection, conservation and sustainable uses both directly and indirectly.

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