



First Indian Biodiversity Congress IBC 2010

National Seminar

28-30 December 2010

Thiruvananthapuram, Kerala



Book of Abstracts



Organized by



centre for innovation
in science & social action



Kerala State
Biodiversity Board



University of
Kerala



Navdanya
New Delhi



First Indian Biodiversity Congress

National Seminar

28-30 December 2010

Thiruvananthapuram, Kerala

Book of Abstracts

28 December 2010

Published by:

Centre for Innovation in Science and Social Action (CISSA),
MBC -27, Museum Bains Compound, Nanthancode,
Kowdiar P.O, Thiruvananthapuram-695 003, Kerala, India
Email: cissaindia@gmail.com; www.cissa.co.in

&

Kerala State Biodiversity Board
Pallimukku, Petta, Thiruvananthapuram -695 014, Kerala
E mail: keralabiodiversity@gmail.com;
www.keralabiodiversity.org

Editors

Dr. R.V. Varma, Dr. M.P. Nayar, Dr. C.K. Peethambaran, Dr. G.M. Nair,
Dr. Tresa Radhakrishnan, Dr. A.S.K. Nair, Dr. S. Rajasekharan

Executive Editor

Dr. A. Biju Kumar

Editorial Board

Dr. P.M. Radhamony, Dr. K. Padmakumar, Dr. G. Prasad, Dr. A. Ganga Prasad,
Dr. Pramod Kiran, R.B., Dr. N.S. Pradeep, Dr. K.G. Ajitkumar, Regi, S.R., Dr. Suvarna Devi

Supported by

University of Kerala (UGC CAS - Dept. of Aquatic Biology & Fisheries); National Biodiversity Authority; Navdanya, New Delhi; United Nations Convention on Biological Diversity; National Medicinal Plants Board, Govt. of India; Department of Ayush, Govt. of India; Karnataka State Biodiversity Board; National Bank for Agriculture and Rural Development (NABARD); Department of Biotechnology, Government of India; Department of Science and Technology, Govt. of India; Ministry of Environment and Forests, Government of India; Council for Scientific & Industrial Research, New Delhi; Kerala State Council for Science, Technology and Environment; Environment Management Agency Kerala World Wide Fund for Nature, India; Kannan Devan Hills Plantation Company Pvt. Ltd.; Coconut Development Board, India; State Horticulture Mission; State Bank of Travancore; Rubber Board



AGROBIODIVERSITY HOT SPOTS IN INDIA AND THEIR ROLE IN CONSERVING TRADITIONAL FARMERS VARIETIES

02 11

Nayar, M.P.

Former Director, Botanical Survey of India;
Chairman, Task Force on Agrobiodiversity Hotspots
Environmental Resources Research Centre, 10/30.N.C.C.Road
Perrorkada, P.O. Thiruvananthapuram-695005, Kerala
nayarmp@yahoo.co.in

Though the Biodiversity Hot spot concept of Myers is one of the most important useful paradigm for the conservation of threatened biota, giving primacy to endemism covering 49% of the global plant species the most important areas which support the food security of the world represented by the plant genetic resources are not accounted in the Biodiversity Hotspot concept. In looking for supplementary strategies, it is prudent to look for areas which support mankind ie agro-biodiversity in the farmlands, grasslands and woodlands. The "Agro-biodiversity Hotspots" areas give emphasize to genetic resources including varieties and variability under ecological, environmental and biotic pressures while "Biodiversity Hot spots" concept gives emphasize to highest concentration of endemics occurring in fragile ecosystems. A new paradigm is emerging which integrates protected areas with landscape ie. farm lands, grass land and woodlands. It includes the variety and variability of plants, animals and micro-organisms which help the functioning and sustaining the key functions of the agro-ecosystems including its structure and processes, assuring the food production and food security. The Indian gene center possess about 17000 species flowering plants of which 33% are endemic to India (Nayar, 1996). Of these 3000—3500 species are of economic value. In India there are about 166 species (Zeven and de Wet, 1982) which are of direct genetic resource value. The genetic resources of indirect value is about 320 specie and they are distributed in eight agro-ecological zones. India is a primary centre of diversity of crop plants like rice, black gram, moth bean, cucurbits, (Luffa), jute (capsularis), jack fruit, banana, sugar cane, mango, large cardamom, black pepper, several minor millets, several medicinal plants like *Rauvolfia serpentine*, *Strychnos nuxvomica*, *Cymbopogon*, *Saussaurea*, *Vetiveria*. India is also the secondary centre of African crops like finger millet, sorghum, pigeon pea, cowpea, cluster bean, sesame, niger, safflower and tropical American crops like maize, tomato, pumpkin, cucurbits, chillies and Amaranth. India is in the diversity belt of South Asian and East Asian crops like ginger, turmeric, tuber crops, taros, yams, bamboos, citrus, rice bean, mung bean, sword bean, small cardamom, sugar cane. It is considered that the important criteria for considering an area of agro-biodiversity importance is the rich presence of progenitors of cultivated plants which have evolved in time and space with varied landscape ecology and terrestrial heterogeneity along with the ethnic communities.



AGRO-BIODIVERSITY HOTSPOTS: IDENTIFICATION AND RECOGNITION OF FARMERS'/FARMING/TRIBAL COMMUNITIES UNDER THE PROVISIONS OF PPV&FR ACT, 2001

02 12

Manoj Srivastava, Singh, P.K., Ajay Kumar Singh and Gautam, P.L.
Protection of Plant Varieties and Farmers' Rights Authority
NASC Complex, DPS Marg, New Delhi

First Indian Biodiversity Congress 2010 : Book of Abstracts

As a member of the World Trade Organization (WTO), India became signatory to the Trade Related Aspects of the Intellectual Property Systems (TRIPS), which provided under Article 27.3.b that the plant varieties are to be protected either by patents or by an effective *sui generis* system drawing its essence from UPOV. Based on these provisions, The Protection of Plant Varieties and Farmers' Rights Act, 2001 was enacted and the PPV&FR Rules were brought in force in 2003. Simultaneously, India being a party to Convention on Biological Diversity (1992), which recognizes the sovereign rights of States to use their own biological resources, and expects the Parties to facilitate access to genetic resources by other Parties subject to national legislation and on mutually agreed terms, it became necessary to enact Biological Diversity Act in 2002. Both these Acts aim to protect the Biological Wealth of India and to regulate the IPRs involved at any stage. As per the provisions of the Rule 70(2), framed under section 45 of the PPV&FR Act which defines the manner of applying the Gene Fund created under section 45 of the Act, "The Gene Fund shall be applied for meeting the following purposes in accordance with the priority made hereunder: (i) To support and reward farmers, community of farmers particularly the tribal, rural communities engaged in conservation, improvement and preservation of genetic resources of economic plants and their wild relatives particularly in areas identified as agro-biodiversity hot-spots; (ii) For capacity building on *ex situ* conservation at the level of the local body, particularly in regions identified as agro-biodiversity hot spots and for supporting *in-situ* conservation; (iii) Dispersal of funds for benefit sharing; (iv) Under these provisions, the 'Plant Genome Savior Community Award' have been constituted (v) To support conservation and sustainable use of Genetic Resources; (vi) To define and demarcate the areas which are to be identified as Agro-biodiversity hot-spots, before the support and rewards can be framed for farmers/ community of farmers, PPV & FR Authority constituted a Task Force which after several rounds of discussions at different levels submitted its report which was published in the form of 02 Volume Book which have been widely distributed for creating awareness. The major recommendation of the Task Force was identification of 22 Agro-biodiversity hotspots distributed over 07 agro-geographical zones of India.

