



LAKE 2012

LAKE 2012: National Conference on Conservation and Management of Wetland
Ecosystems

06th -09th November 2012

School of Environmental Sciences

Mahatma Gandhi University, Kottayam, Kerala



In association with

Energy and Wetlands Research Group, Centre for
Ecological Sciences, Indian Institute of Science,
Bangalore

Advanced Centre of Environmental Studies and
Sustainable Development, Mahatma Gandhi University,
Kottayam, Kerala

Terrestrial Biodiversity

02

‘My Village Biodiversity’: Students’ Involvement in Biodiversity Documentation in Uttara Kannada District, South India

Subash Chandran M.D., Ramachandra T.V. and Prakash N. Mesta
Energy & Wetlands Research Group, Centre for Ecological Sciences,
Indian Institute of Science, Bangalore – 560 012, INDIA

Tel: 91-80- 22933099/22933503 (extn 107)

Fax: 91-80-23601428/23600085/23600683[CES-TVR]

E-mail: mds@ces.iisc.ernet.in; cestvr@ces.iisc.ernet.in; prakash_honavar@ces.iisc.ernet.in
<http://ces.iisc.ernet.in/energy>

Following the Biodiversity Act, 2002 of India, many State Biodiversity Boards were constituted which in turn is involved in formation of Biodiversity Management Committees (BMC) for “promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals and microorganisms and chronicling of knowledge relating to biological diversity.” The **BMCs should prepare People's Biodiversity Register (PBR) containing local knowledge on biological resources and their usages. Nationwide preparation of PBRs**, is expected to be a mammoth exercise for India, a mega diversity country.

A decade is past since the Biodiversity Act, but only tardy progress made in relation to PBRs. Major hurdles hampering the process appeared to be concepts and formats unfriendly for grassroots level people, paucity of taxonomic expertise, low funding and lack of motivation and guidance. Model PBRs prepared

were at enormous expenditure, and through the deployment of experts and not easily replicable.

Looking for alternatives to current model of PBR preparation, we attempted the deployment of student community from high schools and colleges to document biodiversity

under the banner 'My Village Biodiversity' in the Uttara Kannada district of Karnataka State. Simplified formats, as understood easily by high school students and village communities, were used for data collection, carried out during 2010-11 and 2011-12. The teachers were given orientation programmes about biodiversity, Biodiversity Act, and on formats to be used. Competitions were conducted for students and nominal rewards announced for the best reports and good presentations. No financing of the educational institutions was done to carry out this model of work. The objectives included:

- a. **Sensitisation of students:** The very use of data formats were also aimed at sensitizing students to biodiversity related issues. Notable among data to be gathered included forest types, landscape and waterscape elements, plant and animal diversity as the village community understand, crop diversity, preparations and uses of bio-pesticides, organic farming, traditional storage methods, NTFP, management of village environment, community health, wildlife, human-wildlife conflicts, domestic of animal diversity, production of honey and apiculture, energy sources, skilled and knowledgeable people in the villages, sacred groves etc.
- b. **Recording observations:** Study and understand data formats necessary in the contemporary contexts of conservation and sustainable use.
- c. **Vital information on crop diversity:** Stress laid on documentation of local varieties of crops.
- d. **Low cost methods to assist PBR preparation:** No money was paid to partner institutions and students

except for meeting the travel expenses for attending workshops.

- e. **Creating ambassadors of goodwill:** Students, with their unbiased minds were expected to merit greater acceptability in the households, as the villagers otherwise tend to be more reserved with outside agencies like NGOs engaged in such work.
- f. **Expertise in communication:** Students were expected to gain good communication skills.

Results and Discussion

About 580 students from 116 high schools and 6 colleges representing the 11 taluks of Uttara Kannada took part in the two year exercise. Biodiversity documentation covered about 190 villages of the total of about 1200 villages in the district. Considering the sluggish scenario of PBR progress, with only 212 panchayats of Karnataka covered by 2008, comments on their merits pending, the cost was high for the Biodiversity Board in its infancy to bear, but at the same time funding considered small by the agencies catalyzing the PBRs at panchayat levels.

The poor quality performance of some schools was mainly on account of teachers missing the orientation programme. If the education departments, make suitable changes in the syllabi to incorporate biodiversity documentation, with due credits to the performers, the outcome would be more fascinating. The students in general found greater acceptability in the villages, got first hand learning opportunities and often turned out to be communicators of good order.

To highlight some results, notably, of 232 villages where rice cultivation was

revisited, 181 varieties were recorded; out of them 101 were native varieties. Sample survey with regression analysis gives expectation of finding around 492 native varieties in the district. Countrywide adoption of the method will benefit rapid documentation of traditional varieties, feared to have dwindled from around one lakh down to 8-10 thousand, mainly due to unregulated introduction of new varieties. Documentation also covered local varieties of banana, pepper, mango, jack, sugarcane, arecanut, coconut etc.

The villages have rich wealth of traditional knowledgeable knowledge holders like herbal healers specialized in treating ailments like rheumatism, paralysis, migraine, kidney stones, bone fractures, eye and skin problems, jaundice, herpes, paralysis, infertility, epilepsy etc. and cattle diseases. Medicinal plants were exhibited during workshops and their uses documented. Information on persons with knowhow on biopesticides, earthworm manure, water divining, organic farming etc. also is available.

Villagers gave good account of local wildlife, on occasional visiting animals like tiger, leopard, bear etc. Local names of fishes available in the fresh water bodies were recorded. The students provided indications on the presence of hundreds of sacred groves in the villages. They would be interesting places from biodiversity and cultural angles. On the whole pastoralism is on the decline due to fodder scarcity and cattle manure, inevitable for high rainfall agricultural soils, is getting scarce. This can undermine the very farming system of the district.

Our experiment shows the huge potential for harnessing the student power for documentation of the immense biodiversity of the country. Biodiversity awareness creation among the younger generation is a paramount necessity for the successful documentation of the immense biodiversity of India, a megadiversity country with two biodiversity hotspots. The educational system has to be restructured to institutionalize biodiversity documentation, especially using student power from high school and undergraduate levels with due academic credits given to the participants.