

Innovative Capacity Building – The Radical Requirement for Mainstreaming Biodiversity and Sustaining people and their livelihoods

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Introduction

Mainstreaming of any venture or mission implies bringing their basic concepts and ideologies into the main focus of human valuation and evaluation. Thus mainstreaming biodiversity signifies the proper communication of all the essential ingredients of biological diversity not only to the intellectual elites but also to the hearts and minds of the masses and the commoners. Moving a little ahead of that we may assert that the knowledge and skills pertaining to Genetic Diversity, Species Diversity as well as Habitat Diversity has to be adequately and appropriately transmitted and transferred to the minds of the masses. As a natural consequence to this essential requirement, proper capacity building of all the classes of human beings is the most important call and message of the present times.

The Present Plights and Possible Remedies

Let us begin with the most severe plight and constraint of the modern human being which dwells in the salient truth that in the desire and pursuit of rapid development most of the human beings have moved away from 'Nature' and natural surroundings. Thus most of us hardly believe in observing and appreciating the beauty and knowledge embedded in our environment. Our capacity for the same has to be augmented to the desired level. All the schools and colleges have to play a prominent role in the mission. The celebrations of all the forest and environment days of the year for example the 'International Day for Forests', 'World Wetlands Day', 'International Day for Biological Diversity' and the 'World Environment Day' have to systematically utilized to create at least five Master Trainers in at least twenty percent of all the schools of all localities of urban

areas . They should be supplemented with technical discourses and practical demonstrations during the Annual Functions of the schools The charm and wealth of nature has to be laid bare before the mental eyes of even the most feeble minds. It has to concentrate upon the rivers, seas, oceans, lakes, hills, mountains, trees, shrubs, herbs and forests in the vicinity or within two hundred kilometers. The state, national and international standards have also to be conveyed and communicated. The funds available at the divisional, district and regional level should be used prudently for the purpose. The Non Government Organizations working in that direction have to be encouraged to the optimum.

Innovations within Timeless Traditions for Vegetative Knowledge and Skills

It always pays to be innovative and the most acceptable procedure and mode to innovate is to search for possibilities for innovations stored within traditions. It can be done concretely by familiarization with the most salient properties and values of prominent traditional trees and shrubs for each town, city and village. The most prominent ones have to be declared as the 'Vegetative Pride' of the place. It is advisable to classify and categorize them as the oldest, the tallest, the stoutest and one medicinally most precious ones. Thus even the most ignorant and uneducated persons and units would become conversant with biodiverse realities such as the majestically assertive Ficus, the incomparable and priceless Neem and the ever energizing and amazing Arjun. It may be extended to all the important medicinal herbs and shrubs that constitute the core of Ayurveda and Unani .The school authorities should motivate their teachers to constitute Specific Biodiversity Groups and to assign to each group a particular gene, species or a



specific habitat for observation, analysis and pragmatic conclusion. It shall augment the level of knowledge and pave the way for proper skill development. It is herein that the head of each family has to be sensitized and educated at the local level so that he or she can guide his or her children and other members of the family for that cause.

The Study Tours and the Educational Excursions

It is a universally accepted fact that seeing is believing. Thus educative biodiversity study tours, excursions and exposure visits deliver a commendable role in bringing the knowledge and skills related to biodiversity into the main focus. They may be nature tours of rivers, valleys, hills and mountains, planned visits to forests and sanctuaries, travels and halts within national parks and zoological gardens or else to modern Biological Parks. As a streamlining force we have to introduce within them presentations, paintings, essay writing and travelogues aptly conceptualized and drafted or implemented by the participants. To encourage such participation the efficient performers should be awarded, rewarded and honored. A salient output of one such excursion organized by a reputed institution to a nearby forest just few days before the Holi Festival, is quite noteworthy. It acquainted the entire group of participants with the basic properties of the 'Flame of the Forests' along with its local name 'Dhak' and 'Palaash' and the medicinal, traditional and ecological importance of its flowers and its other parts. These implementations can be easily supplemented with display of short movies and video-films along with systematic internet displays.

Arousing Awareness within the Masses

Nothing can be achieved without catering to the needs of the masses and to the individuals or families residing in the villages. Each person is a separate case study and each village is a distinct environment. As regards the villages, it is the duty of the village council and the village head as well as the individual and collective responsibility of all the villagers to keep its habitat pure and clean, maintain its ponds and water-bodies, know and identify all its flora and fauna and also to know each other as well as all the available livelihood options. The Joint Forest

Management Committees and the Eco Development Committees constituted in several nations have motivated millions of minds for that noble cause. It is a common traditional belief that the situation and status of the village ponds and trees signify and mirror the health and potential strength of all the elements of its biodiversity.

Educating the students, parents and teachers

Several complex terms and technical jargons are often used at various national and international forums wherein they perform the undesirable task of confusing the common minds. This situation calls for the publication of the pertaining knowledge in vernacular languages with the usage of simple words and phrases. Much remains to be done and achieved in this direction. The most important target groups for this cause are all the students of primary education level. The teachers have to think and act in close collaboration with the parents of the students. The parents-teachers meetings would be the idle platform for building the capacities of parents for proper comprehension of biodiversity and its intimate relationship with sustained development. Herein a brief reference to the Children Forest Programme would be worthwhile. This programme which is presently being implemented in thirteen districts of Uttar Pradesh has concentrated entirely created awareness amongst the students of prudently selected schools of these districts through Nature Tours, growing mini forest, teacher's orientation and other planned activities. It serves to provide a working model for capacitating the posterity. (Action Handbook for Teachers Published By OISCA International, North India)

The Salient Need of the Hour

All of us whether living in cities, towns or villages, have to think about at least one aspect of Biodiversity each day. Each day we have to think, read, observe, converse, discuss and analyze the chosen aspect and trace its realistic relation with our past, present and future. Thus conservation of biological diversity has to be identified as an essential daily need. We may begin from the monthly mode, pass through the weekly deliverance and ultimately arrive at the daily disposition. We have to grasp several mutually associated modern concepts such as Ecological Balance, Protection of



Environment, Wetlands and Wetland-Conservation, Conservation of Biological Diversity, Habitat, Forests, Eco-tourism along with several others.

The path and the provisions

Adoption of the concept of minimizing the biotic pressure on 'Forests' is one of the safest mode for sustaining and mainstreaming biodiversity. This can be prudently done by making maximum choice of those livelihood options which are not dependent upon forests. Among the options having dependence upon forests, only those ones have to be chosen which do not hamper the sustainable utilization of our forest wealth. The same concept should apply to the options dependent upon 'Nature' and 'Natural Wealth'. This particular fact calls for all the members of the duly constituted 'Forest Users Group' to be well educated about its local biodiversity and the status and future possibilities of all its available livelihood options. Thus specific programmes for their capacity building ought to be organized at the local, district, regional, state and national level. National and State Awards and recognitions for the most aware participants of the year may serve as a morale booster for that cause of prime importance.

Augmenting the Technical Capability – An Illustration

Due reference to the Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project would be reasonably apt at this juncture. The project is operational in three distinct habitat zones of Uttar Pradesh namely the Terai region, the Vindhyan area and the Bundelkhand portion. A case of the Lalitpur Division of the Bundelkhand region is quite enlightening. As per the provisions for capacity building for staff and the villagers and rejuvenating and mainstreaming their implementation capabilities, the Project officials contacted the India Grassland Institute at Jhansi and obtained seeds of *Stylo hemata*, *Penicum maximum* (Ginni) and *Dicanthium annulatum* (Dinanath) and the technology to plant these grasses in the Village Forest of Billa Village, to enable villagers to get palatable grasses for their milch cattle. Besides the grasses, medicinal plants like *Aloe vera*, *Cymbopogan flexuosus* (Lemon grass), *Withania somnifera* (Ashwagandha), *Calotropis procera*

(Arka), *Strychnos nux-vomica* (Karaskara), *Achyranthes aspera* (Apamarg), *Rauwolfia serpentina* (Sarp Gandha), *Chlorophytum tuberosum* (safed musli), *Ocimum basilicum* (Shyam Tulsi), *Andrographis paniculata* (Kalmegh), *Asparagus racemosus* (Satawar), *Anacyclus pyrethrum* (Akarkara), *Tinospora cordifolia* (Giloy), *Solanum nigrum* (Makoy), *Cassia augustifolia* (Senna) were also planted/sown. While the villagers are getting fuel wood, gum and honey as minor forest produce from the forest, the cultural operation in the plantation area is providing timber for use in construction of houses, thatched roof, shed for the animals and also for the agricultural implements. The JFMC is confident that once the medicinal plants start flowering, the conducive environment will favour the natural regeneration. (Compendium of Success Stories of Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project, Year 2015, Page 61).

This particular example connotes a true example of the capacity building of implantation staff and the villagers through the conceptualization and actual realization of vegetative coherence and biodiverse realm.

Analysis of the self and the surroundings

Planners can plan and implementers can implement for a region, village or city only in that situation wherein they are having sufficient knowledge about its geographical, demographical and natural realities. They have to be mindful and adequately aware of the dwellings, the dwellers as well as the local ventures. It all begins from the self through proper self-realization. The maxim 'Know Thyself' conveys a perpetual message. Thus the capacity of all the planners, implementers and administrators have to be strengthened and streamlined, so that, they can transmit and transfer the guidelines and technologies down below to the grass-root level. It has to begin with a clean conscience through a concrete realization of 'What am I?', pass through 'What they are?' and move towards 'What is best for them?' It is a clear case of approaching the problem in the simplest possible mode through convenient, simple methods and conceiving the essential needs of the poorest of the poor. Simple Living and High Thinking along with

the augmentation of knowledge and refining of livelihood option skills is the safest and the surest methodology.

Developing capacity for conducting non-forest activity- An illustration from UP-PFMPAP

Livelihood options prevalent in most of the villages involves extraction, debarking, plucking of flowers or leaves, heating or distillation of raw material ,uprooting, collection of seeds, herbs, shrubs and fruits or else stem-boring . For the proper tapping and optimum utilization of the available potential, the capacity and the capabilities of the members of active Self Help Groups needs regular augmentation and rejuvenation. They need to be empowered to the level of being able to prepare the pertaining business plans. A particular case of Allahabad Division of the Vindhyan region deserves special mention wherein in Mahuli village lying in Koraon Block of Allahabad District the Parvati SHG was formed on thirteenth of October, 2012. Traditionally the members of the group were engaged in vegetable cultivation; therefore, they decided to take up vegetation cultivation as their Income Generation Activity. The group was advised and empowered to prepare the Business Plan. The SHG started cultivating coriander, radish, spinach and onion. In the second cycle, cultivation of brinjal, chilli and lady finger was taken up on half the land and on the remaining land paddy was cultivated. The group is happy that the vegetable cultivation has not only improved their economic condition but also the overall health condition. of the family members. (Compendium of Success Stories of Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project, Year 2015, Page 85-86) In this manner, the villagers have through acquirement of proper knowledge and skill prudently chosen a livelihood that has avoided putting biotic pressure

References

- Compendium of Success Stories of Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project, Year 2015, Page 61
ACTION HANDBOOK for Teachers published by OISCA INTERNATIONAL, NORTH INDIA
Compendium of Success Stories of Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project, Year 2015, Page 85-86)

upon the existing village forests having *Butea monosperma*, *Zizyphus mauritiana*, *Carissa carandus*, *Anogeisus latifolia*, etc. as their prime vegetative treasures.

Changing the Attitude

Having ensured the transmission and transference of Knowledge and the ample development of pertaining skills, we have to focus upon the prevailing attitudes and the modus operandi for bringing about the essential change required in the attitude of the villagers residing on the fringes of the forests, sanctuaries and the national parks towards Forest Protection and sustainable utilization of Biological Resources. It can be achieved only through regular village meetings, regional workshops, on the spot practical demonstrations and commendable catalysis of the benefit sharing of the proceeds of forest produce available to all the forest users. Ample funds for all these human resource development activities need to be allocated and allotted to the pertaining departments and concerned levels. The attitudes of several officers and personnel are also needed to be reviewed and put on periodical scanners.

The Concluding Note

Innovative capacity building implies and constitutes a proper assemblage and prudent combination of augmenting human knowledge, refining and rejuvenating human skills, transforming human attitude while sustaining the intrinsic innovative capabilities of the entire human race. It makes us aware of the available biological resources, streamlines our livelihood options and enlightens us to make sustainable utilization of Nature and natural surroundings. It practically amounts to preparing the proper foundation for Mainstreaming Biodiversity and sustaining people and their livelihoods.

