



Biodiversity Conservation for Development and Poverty Alleviation

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Human kind has responsibility to future generation to leave a world rich in biodiversity, filled with the plants, animals and ecosystem processes on which all animals depend upon. There is need to conserve the remaining biodiversity in the Third World countries because population growth at Malthus rate has wreaked havoc on the natural resources. People living in low income, high biodiversity areas can be learnt from the mistakes that the high-income countries have made with pursuing growth at any cost. It is time to build on lesson learned and to move forward in partnership by working together to preserve biodiversity in increasingly threatened areas. This partnership should strive to conserve the rich natural heritage of many developing nations recognizing that biodiversity conservation will benefit their countries in the short term. At the time when the now developed countries were rapidly depleting their biodiversity, there were no other countries with which to partner in seeking better and more sustainable alternatives. The strategy for management of rural oriented technologies has to address to the need for improvement of condition in rural India. The Economic conditions include 33% of the population residing in rural areas lives below poverty line; 69% of the rural poor have no land - only 2.5% rural households have farm implements and machinery; about 75% of the population resides in rural areas, having only 33% of the national income.

Research and development

The Government of India is aware of all these problems and has formulated a number of programmes

in last 5 decades those are classified in 3 categories viz. infrastructure oriented, social welfare oriented, and community specific.

Towards infrastructure, the technological inputs provide for facilities like potable drinking water, better sanitation, improved housing, electrification, maintaining of roads etc. The technology interventions include hand pump, geodesic domes incorporating improved locally available materials for low-cost housing, building roads etc. Technologies for improving the overall quality of life through improved health practices, better nutrition, family planning measures, education systems, non-conventional source of energy, social forestry, flood control desert reclamation etc. The technologies to improve living standards help in generation of employment, increase existing levels and catering to specific need. The technologies include improved farm equipments, art skills, cottage industries etc.

Program implementation

At the national level, the Planning Commission sets the targets for development. The inputs came from various Government departments and experts. The Ministry of Rural Development has the overall responsibility for specific policy formulation, monitoring and evaluation and the release of the central funds. The conduct of the programmes is reviewed, over-seen by a committee consisting of the Secretary of Rural Development and Joint Secretaries of the other departments viz. Agriculture, Planning, Finance, Women, Child Development etc.

The Rural Development Programme is implemented by District Rural Development Agency



with Collector of the district as Chairman. The day-to-day functioning is under the charge of an Additional Development Commissioner.

The block level is the basic unit for preparation of perspective and annual plans, the implementation of the programmes as per the approved plan and providing feedback on the impact of the programme. The Block Development officer performs the role of the Chief Co-ordinator also. The field implementation of the technologies is done by Extension Officers and Gram Sewaks. The Government is the main agency for development and execution of rural programmes and associated technologies. Various agencies like other Central Government institutions, universities, voluntary agencies, non-governmental organizations etc. are also called in for necessary support.

The above is the currently prevailing organization structure for all Rural Development Programme. However, different technologies with different target beneficiaries require different treatment for effective dissemination, for which the Government has adopted various approaches like training and visit system, mission approach etc. The training and visits system was found necessary because the traditional extensions scheme was found inadequate. The system provides better linkages between the farmers and extension workers. The farmers are provided with relevant, clear and sensible advice which builds close 2-way contact between research scientists, extension officers and farmers. The mission approach envisages cutting across departments and bringing all agencies together to work in a co-oriented and integrated manner. The mission thus operates as a consortium of departments, agencies and institutions. This was used in programme like biogas plants, pumps for drinking water, oilseed production etc.

Role of ICAR in poverty alleviation

In the country nearly 29% of the farm household are under nourished and sub-marginal farm households are the most vulnerable. The under-nourished population showed 37% sub-marginal, 27% marginal, 20% small and 13% medium as well as large each farmers. ICAR plays an important role into the problems relating broader areas of rural

development concerning agriculture, including post-harvest technology by developing co-operative programmes. Some of the major projects are enumerated here.

Piggery

The single most important animal throughout the north-eastern hills region is pig. There is a ready market with high demand for pork. Despite the fact that a sizeable number of farmers are engaged in pig rearing, there is a shortage of pork. As a result people are ready to pay price as high as Rs 65-80 per kg of pork. Efforts are, therefore, to be made to augment its production through farming system approach to the under Farm Household System and Economic Enterprise System and it is to be taken up as an industry by the economic Enterprise System with central facilities to be stood by the producers of Farm Household System. ICAR has also launched an Integrated Piggery Development as Programmes at 10 KVKs. This is financed by the Department of Animal Husbandry and Dairying Ministry Agriculture, at IVRI, Bareilly.

Rabbitary

Rabbit has been found to be excellent animal that can provide not only meat at an economical rate but also furskin and wool, vital raw materials for warm clothings. The rabbit can be important component of the north-eastern region's and other part of India's farming system as the climatic conditions are suitable for them. Unlike poultry the risks of entire population being swept away due to such disease is almost nil.

Rabbit is a simple and docile animal with a very high prolificacy. With an inter-kindling interval of 83-85 days a total of 4 crops per female per year may be obtained and with an average litter size of 6 at weaning 24 kits may be added to the population per rabbit. That means around 29-30 kg meat (1.20 kg/rabbit at 90 days), 24 number of fur skin or 1.5-3.0 kg wool/female/year. This proves high biological productivity of rabbit. Moreover, once a farm is established especially by the economic enterprise unit with a population of 150-200 female 1:5-6), production of rabbit will be a continues process without having to keep on looking for the germ plasm elsewhere. The



New Zealand white Rabbit fetched profit of Rs 30.75 when-compared with soviet chinchilla rabbit Rs 27.25.

The implementation of 3 objectives of the Biodiversity Conservation for development and poverty alleviation is difficult to achieving the Millennium Development Goals and to combating poverty. But it is possible through hard work and co-operation among all of us. Poor rural communities depend on biodiversity and ecosystem services for

health and nutrition .for development, and as safety net when faced with climate variability and natural disasters. Urban dwellers the world over depend on water provisions and purification performed by forests, wetlands and agriculture. Healthy ecosystem like forests and bogs contain massive carbon reservoirs and are vital to regulating global climate. Biodiversity loss threatens to increase poverty and undermine development.
