



Socioeconomic benefits of Wetlands to the people of villages from kurkheda and Korchi, Dist- Gadchiroli, Maharashtra, India

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Abstract:

Wetlands are transitional zone between water and land that often wet but not wet all around the year. People living near wetlands have developed socio-economic and environmental values around the wetlands which are part of the people's history and current existence means one can say that it is the actual place where development of society taken place. In presents investigation the benefits and contribution of wetlands as a source of income for the different villages were studied by giving number of visits from 2013 to the inland and artificial wetlands of the region and interacting with the tribal people of the nearby region for knowing the their dependency on wetlands. The results of the study concluded that 62% people depend on agricultures as a source of income. With agriculture people have other sources of income which help them for survival.

Key words: Socioeconomic, wetlands, wetland diversity

Introduction:

Wetlands are the link between the land and the water. They are transition zones where the flow of water, the cycling of nutrients, and the energy of the sun meet to produce a unique ecosystem characterized by hydrology, soils, and vegetation making these areas very important features of a watershed. Wetlands provide habitat for thousands of species of aquatic and terrestrial plants and animals so that they are called Nurssories of Life.

Wetlands are the ecotones means the overlapping zone between land and water and are often referred to as "biological supermarkets" because they support all life forms through extensive food webs and biodiversity (Mitsch and Gosselink, 1993). Wetland ecosystems, including rivers, lakes, marshes, rice fields, and coastal areas, provide many services that contribute to human well-being and their economy. An estimated 40% of the global economy is based on biological products and processes (WEHAB, 2002). Some groups of people, particularly those living near wetlands, are highly dependent on these services and are directly harmed by their degradation. Wetland regulate water levels within watersheds, act as a bed for number of diversified plant species, improve water quality, reduce flood and storm damages, provide habitat for important fish and wildlife, support hunting, fishing, other recreational activities and perform some useful functions in the maintenance of ecological balance. Wetlands have played a key role in the support and development of society. Benefits provided by wetlands include water supply and control, mining, use of plants, wild-life, integrated

systems and aquaculture, erosion control, education and training, recreation and reclamation (USEPA and USDA-NRCS, 1995; Cooper et al., 1996; Vymazal et al., 1998a; USEPA, 2000; Sundaravadeivel and Vigneswaran, 2001).

Ecosystems and the biological diversity contained within them provide a stream of goods and services, the continued delivery of which remains essential to our economic prosperity and other aspects of our welfare. In a broad sense, ecosystem services refer to the range of conditions and processes through which natural ecosystems, and the species that they contain, help sustain and fulfill human life (Daily, 1997).

There are various people of the villages who could not able to pursue job employment due to lack of education depends on these wetlands for their survival of life. Present investigation was carried out for the collection of data on benefits of wetlands for the survival of people of villages of kurkheda and Korchi.

Materials and Methods:

Study Area:

The entire Gadchiroli district is included in the drainage basin of the Godavari River which flows west to east and forms the southern boundary of the district. The major tributaries of the Godavari are the Indravati and the Pranhita, which is in turn formed by the confluence of the Wainganga and the Wardha near Chaprala village of Chamorshi Taluka. Dhanora, Etapalli, Aheri and Sironcha talukas in the eastern part of the district are covered by forest. Hills are found in Bhamragad, Tipagad, Palasgad

and Surjagad area. The western part of Gadchiroli is mainly hilly area.

North Gadchiroli covers three talukas including Wadsa, Kurkheda and Korchi in Indian State of Maharashtra. This area has thick forests and locally known as Zadipatti area of forests and trees. The region is famous



for the very dense and thick forest of Khobramendha, Malewada Kurkheda, Kadoli, Manapur and Sonsary of Kurkheda and Tipagad, Maseli, Bedgao, and Bodaldand area. The region is accommodated by number of Inland and manmade wetlands.



In presents investigation the benefits and contribution of wetlands as a source of income for the different villagers were studies by giving number of visits to different villages from the year 2013 and interaction were made with the people for knowing their dependency on wetlands. To calculate the percentage of income source one questioner's format were given to the people visited. On the other hand continue visits were given to the inland and artificial wetlands for the study of availability of the resources.

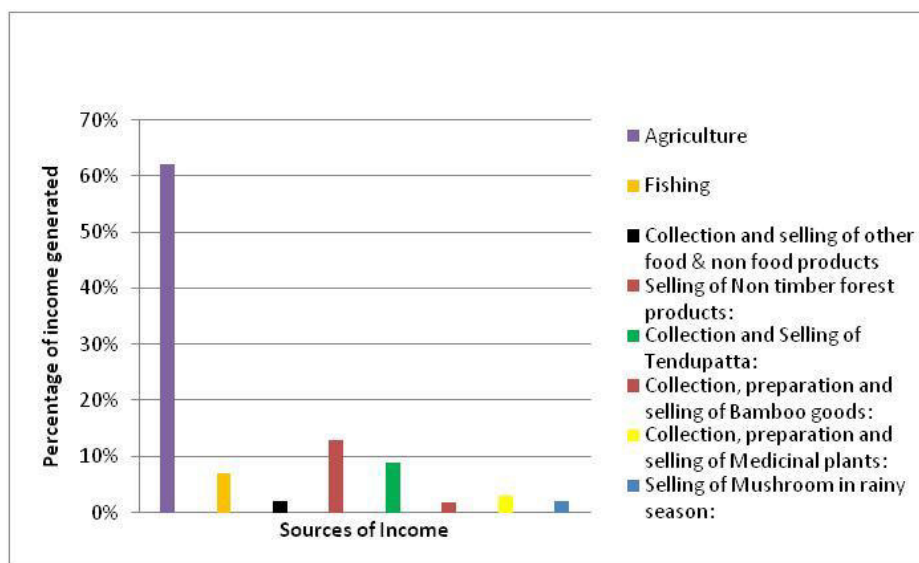
Results & Discussion

Commercially unexploited and technologically underdeveloped area is the very well nomination of Gadchiroli District. Very few commercial business projects are now on the verge of establishment by the state government. So the people of the region fulfill their income by doing different occupation depending on wetland and forest of the region.

Table I: Showing the sources of income and percentage of income generated from the sources

Sr. No	Occupation	% of income Generated
1	Agriculture	62 %
2	Fishing	7%
3	Collection and selling of other food & non food products	2%
4	Selling of Non timber forest products:	13%
5	Collection and Selling of Tendupatta:	9%
6	Collection, preparation and selling of Bamboo goods:	2%
7	Collection, preparation and selling of Medicinal plants:	3%
8	Selling of Mushroom in rainy season:	2%

Fig I: Showing the sources of income and the percentage of income generated from the sources



Agriculture: The main river basins of the area are the Wainganga, Sati, Tipa, Khobramendha etc. Total numbers of lakes in kurkheda and Korchi tehsil are 268 and 247 respectively. The main occupation of people of the region is agriculture as water sources are available as a part of wetlands. The common agricultural food product of this region is paddy which is totally depending on the availability of water. 62% of the villagers depend on agricultural income for their life budget.

Fishing: Some people of the region also capturing and sold the fishes, Crabs and prawns from the inland wetlands like from lakes and rivers as artificial wetlands are very less in this region and the percentage of such population is 7%.

Production and selling of other food & non food products: People of the region also culture various food products like rhizomes of kamal (*Nymphaea lotus* L.), wild rice, Kacharkande, young shoot and rhizome of Typha (*Typha angustata* L.). Tender shoot of water Spinach (*Ipomia aquatica*) in small water bodies and got income by selling them in market. After the drying of these water bodies, they also harvest the root tubers of the plants and sold them for income Source. Percentage of Such population is 2%.

Selling of Non timber forest products: District Gadchiroli has 12793 Sq. km area (MH-Forest Region Book, 1997-1998) under forest cover which is bigger than forest area of various district of the state. This is because of the wetlands of this region provides land for forest and forest resources. Fertile wetlands are directly responsible for the formation of

dense forest and indirectly for different types of forest products like timber and non timber, food resources which help to earn income for villagers. 13 % of the people were depend on various harvested non timber forest resources like flowers of Mahua, Heti, Amaltash, Kuda; Fruits of Aam, Sitaphal, Imli, Charoli, Chinch, Temrun, Bel, Ber, Awda, Behda, Hirda, Mahua seeds; Rhizome of kevkanda, Rhizome of Dhopa, Tuber of Mataru, corm of suran. Gum exuded from Bark karu called gum karaya, lakh exuded from bark of palas, gum of Dikemali, Babul is collected and sold by the people of the region.

Collection and Selling of Tendupatta: In summer season leaves of Temrun (*Diospyros melanoxylon*) are collected, arranged by villagers and sold them to contractors and it contributes 9 % to generate the income.

Collection and selling of Bamboo goods: People collect Bamboo stick from forest and made various local goods used for various purposes and sold them in market. It generates 2% of income. India's first round stick Agarbatti project established at this region by Maharashtra Forest department

Collection and selling of Medicinal plants: Most of the plants of the forest and wetlands have been used as traditional medicines by the local people of the region as Wetlands provide fertile ground for the growth diversified medicinal plants. Local people collect fruits, roots, root tuber, stem tuber, leaves, flowers and seeds of different angiospermic plants and pteridophytic plant like having medicinal value and sold them to patients for various common diseases. The most important feature of this

type work is that in every village 5-6 persons sold Medicines on every common disease. It contributes 3 % to generate the income.

Selling of Mushrooms in rainy season: On coming of every rainy season, most of the people of the region collect Mushrooms (Member of Basidiomycetes fungi) from forest sold in market with high cost as a source of food. 2 % of the people generate income from this occupation.

Conclusion: The fertile basin of Wainganga, Tipa, Khobramendha River and Flakes of the region are responsible for total life style of the tribal people. Wetlands of this region were found non contaminated from this it is concluded that people use negligible amount of chemical fertilizers for agricultural purposes as soil is already fertile. Floral and faunal diversity of the wetland provide different income sources with agriculture which contribute maximum that is 62%. Various wild species of the plants are still found in this region. So there is need to conserve the diversity of wetlands from growing exploitation and industrialization.

Referances:

1. Central Provinces district Gazetter-Government Central Press Mumbai Chanda district, Volume1.
2. Cooper, P. F.; Green, M. B.; Haberl, R.; Eds (1998). Backhuys Publishers: Leiden, The Netherlands, , pp 1-15.
3. Cooper, P. F.; Job, G. D.; Green, M. B.; Shutes, R. B. E. *Reed Beds and Constructed*
4. Cooper, P. J. (2001). *Chart. Inst. Water Environ. Manage.*, 15, 79-85.
5. Daily, G.C. (1997), "Introduction: What are Ecosystem Services?" in Daily, G.C., "Nature's Services: Societal
6. Dependence on Natural Ecosystems", Island Press, Washington, D.C.
7. Dr. S. G. Kolarkar, G. M. Purandare. History of Vidarbha. Shri Mangesh Publication, Nagpur
8. Maharashtra -Forest Region Book, 1997-1998.
9. Sundaravadivel, M.; Vigneswaran, S. *Crit. Rev. Environ. Sci. Technol.* 2001, 31, 351-409.
10. Vymazal, J. In *Constructed wetlands for wastewater treatment in Europe*; Vymazal, J.; Brix, H.;
11. WEHAB (2002), "A Framework for Action on Biodiversity and Ecosystem Management", Water, Energy, Health, Agriculture and Biodiversity Working Group Report, contribution to the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August – 4 September 2002. United Nations, New York.

