

Wetland Conservation of Water Resources: An Overview

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ABSTRACT

The natural linkages between water, wetlands and timberlands address the complicated reliance of our biological systems and our assets. Woods assume a critical part in the hydrological cycle by influencing paces of happening and dissipation, and affecting how water is steered and put away in a watershed. This thusly assumes a fundamental part in the protection of our wetlands, which go about as normal supplies furthermore, are very wealthy regarding both biodiversity and the environmental administrations that they give, for model, inside the domains of horticulture, sterilization, and energy. These linkages feature the significance of using appropriate degree to guarantee full partner association and participation across a large number of areas when managing our planet's water assets. This can be worked with partially by upgraded cooperation between the Convention on Biological Diversity also, the Convention on Wetlands to help their individual part in carrying out the board strategies as per the environment approach.

Introduction: The India is one of the richest nations in terms of biological diversity. The two major factors responsible for this are the variety of climatic Zones and the existence of islands with their own variety of endemic species. The conservation of biodiversity is not only essential for ecological and environmental issues but also for a sustainable economic and social development, The Conservation of biodiversity concerns the management of the development Processes, not only at the national but also global level. The importance of biodiversity and its conservation is getting greater recognition all over the world, particularly in countries such as India, which strongly depend upon their agriculture and nature resources. The subject of biodiversity conservation has been engaging our attention during the past few years and there have been many attempts for in-situ conservation.

Some species-rich areas were declared as Biosphere Reserves, National Parks, & Sanctuaries to give protection to their natural flora and fauna. Commercialization and consumerism together has formed a highly explosive combination. Number of factors like misuse of nature destruction and degradation of forests and habitats, contamination and destruction of natural resources is leading to the extinction of several species of organisms. India is classified as one of the world's 12 centers of mega-diversity in terms of animal and plant wealth's. According to the union Ministry of Environment and Forests, the country has 6.67 % of the animal species in the world and the plant species add up to a 12.53 per cent of the total number in the world. One of the basic functions of Biosphere Reserves is to develop strategies leading to improvement and management of natural resources.

The Problem of over population, urbanization and industrialization has over strained the water supply. Water is not only essential for the survival of human beings and other life forms but also is constraints in its availability. It is thus, becoming increasingly difficult to meet the demands of

How to cite this paper: Dr. Mukesh Kumar Lalji | Dr. Ashish Dongre | Vinay Yadav | M. L. Sitariya | Neeraj Nagwanshi | Prashant Dubey | Pramod Khandelwal | Ashish Upadhyay | Gaurav Lalji | Divya Lalji | Arvind Jain | AR. Sandhya Ekbote "Wetland Conservation of Water Resources: An Overview" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-5 | Issue-4, June 2021, pp.28-30, URL: www.ijtsrd.com/papers/ijtsrd41173.pdf



IJTSRD41173

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people agriculture, and industry, without damaging our fresh water resources. Water is needed to fulfill diverse requirements. It is vital to life, as is essential for all the physiological activities of plants and animals. On an average it constitutes 80 per cent in dry dormant seeds to 95 per cent in jellyfish. Besides temperature, water is the other such key factor that influences the global ecology. Covering about 70 of land surface and circulating in hydrologic cycle, water influences weather and climate of any region and thus its flora and fauna. Management of water implies making the best use of available water resources for human benefit while not only Preventing and controlling its depletion and degradation but also developing it in view of the present and future needs (Ghose, 1999,) Water like forest, is a multipurpose resource and it is important to see that its various uses should not conflict with each other, and it can be used in its totality by man and others, Thus, its right allocation and quantitative and qualitative conservation are the primary tasks before us.

The Problem of contamination of drinking water with metals particularly arsenic is increasing day by day and has not

taken the form of National calamity. According to a recent survey by World Health Organization (WHO), more than a million people are drinking arsenic contaminated water in West Bangladesh alone. The flora and fauna of the region are also severely affected. WHO has sounded an alarm and warned India and Bangladesh to protect and conserve the ecological balance of the affected region (Roy Chowdhury, 1997) Unfortunately, Sunderban Biosphere Reserve is badly affected by arsenic contamination and concrete efforts and effective measures must be taken to protect this calamity.

Basic Facts

The human intake of arsenic is more associated with food, e.g. seafood, than with drinking water. However the degree of toxicity is less with organic arsenic (Flora and Tripathi, 1998). Drinking water represents by far the greatest hazard, since arsenic in groundwater is predominantly found as inorganic arsenic with greater degree of toxicity is less with organic arsenic (Flora and Tripathi, 1998). Drinking water represents by far the greatest hazard, since arsenic in groundwater is predominantly found as inorganic arsenic with greater degree of toxicity, Arsenic is widely distributed in earth's crust and is used commercially, primarily in alloying agents. It is introduced into water through the dissolution of minerals and ores, from industrial effluents and from atmospheric deposition (iffland,1994). The concentrations in ground water in some areas are elevated as a result of erosion from local rocks. Hyperpigmentation, depigmentation, keratosis, and peripheral vascular disorders are the most commonly reported symptoms of chronic arsenic exposure. Skin cancer and a number of internal cancers can also result (Garcia-Vargas and Cebrian, 1996.) Cardiovascular and neurological diseases are found to be associated with arsenic ingestion and exposure. Also, there is lack of consensus on the definition of arsenic poisoning (ishizaki 1980).

Diagnosis

The Symptoms of acute arsenic poisoning are generally burning and dryness of the oral and nasal cavities, gastrointestinal disturbances and muscle spasm, vertigo, delirium, and coma. nasal cavities, gastrointestinal disturbances and muscle spasm, vertigo, delirium, and coma. Edema of the face and the eyelid may also be evident (squibb and Fowler, 1983). On the other hand chronic poisoning may be characterized by malaise, fatigue, gastrointestinal disturbances, hyperpigmentation and peripheral neuropathy (Tripathi et al. 1997) pale bands on the fingernail and toes may also develop. Skin changes too occur more frequently than hemological changes particularly in industrial poisoning. Exposure to arsenic is also known to result in the cancer of skin and respiratory tract. High arsenic levels in soil and drinking water have been linked with a severe form of peripheral arteriosclerosis (blackfoot disease) Chen et al. 1992) The measurement of arsenic in urine may be useful for diagnosis particularly in acute cases. Concentration of arsenic in biological tissues may be within normal limit at the time of diagnosis in such cases of poisoning.

Future Needs and Alternate Sources of Water

The demand for usable water, like any other resource, is increasing fast with the continuous increase in world population and continuous increase in per capital demand linked with more of sewage disposal and transport, prolific use of water using automated machines for various household purpose and increased recreational activities. Thus with the increased demand of water in developing countries like, India, the question is "Where will the water needed for fulfilling increasing demands come from. The possible means of meeting out the impending water deficit problem include, Reclamation of sewage and waste water Development of ground water sources and surface storage such as Long range forecasting or rains, Rain making, Transfer of surplus water, Desalination of sea water and Developing new treatment modalities for contaminated water.

Conclusions:

The preservation or sustainable utilization of organic variety presents unique difficulties for strategy markers due to its perplexing nature and the troubles related with recognizing the fundamental makes that lead biodiversity misfortune, Biodiversity protection has gotten the expressed goal of public governments, state offices, neighbourhood networks, and logical associations. However, notwithstanding this consideration, the term biodiversity remains ineffectively characterized. The human wellbeing meaning of different wellsprings of arsenic, for example, those through natural pecking order, should be additionally investigated, as does the connections between diet/sustenance and the drawn out impacts of arsenic, and the portion reaction and portion impact relationship in drinking water. Different wellbeing impacts from devouring arsenic-defiled drinking water are displayed after a delay. Sores are for the most part seen first, yet as a rule show up after a base openness of roughly 5 years. The degree of real admission of arsenic its mixtures are obscure and subsequently the future wellbeing impacts can't be anticipated precisely. The information on wellbeing impacts of the circumstance. An exact estimation of arsenic in water isn't basic Concentration significant for human comfort.

Plate - 1 Phyto & Zooplankton population of Upper Lake

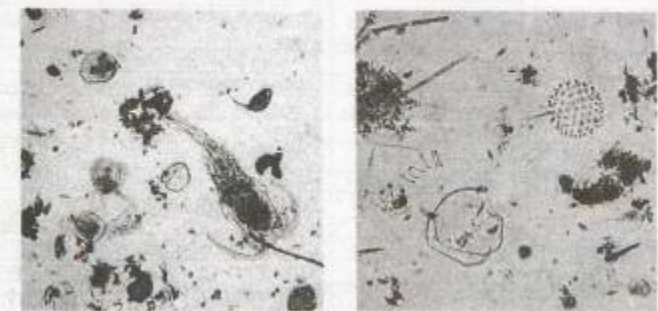
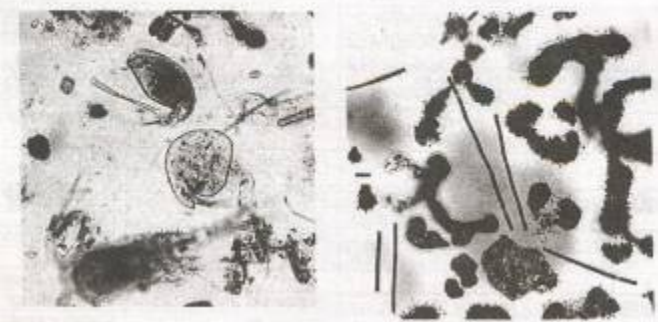


Plate - 2 Phyto & Zooplankton population of Lower Lake



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