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Studies on pond water in relation to fish production

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Abstract
This paper focuses about an importance and health benefits of clean and pure water. It was recognized even by the ancient civilizations of Rome, Greece and Egypt who had constructed wonderful aqueducts to conduct clean and natural water from distant catchments to serve the needs of major cities, Darbhanga. Volume of a hydrosphere consists about two third of earth but only 0.2 percent of hydrosphere is fresh water sources, out of this only 0.003 percent consists of river what. But it is matter of great concern that even this meager amount of water in the rivers and pond is getting gradually polluted.

Keywords: Hydrosphere, Earth & Natural water

Introduction
Water pollution has been outlined in many ways. Knowledge (1956) outlined pollution as "the addition of one thing to water that changes its natural qualities, in order that the owner doesn't get the natural water of the stream transmitted to him". The contaminated water loses it natural quality and becomes unsuitable for drinking, domestic, agricultural and alternative functions. Natural pollution will occur however in most cases pollution is direct results of human activities and interferences. Natural pollution causes solely a small disturbance and produces no visible abnormal impact upon the water because the system quickly readjusts and come to its wild. Pollution of water thanks to human activities is development as recent because the human civilization. Within the starting of civilization the degree of pollution was little thanks to the tiny quantity of waste and had just about no impact upon the system. However, with the advancement of human civilization the matter of pollution became a lot of and a lot of aggravated and currently the foremost serious pollution is beyond any doubt the direct results of human activities. The increasing urbanization and manufacture along with population explosion and accelerated use of pesticides, etc. ar for the most part answerable for the ungoverned pot Intl on.

Overview
There are four in causes of water pollution. These are: domestic sewage, industrial wastes, agricultural pollutants and physical pollutants. Water pollution has different types of effects. From an ecological point of view, these effects can be divided into six categories, these are: deoxygenation effects resulting from bacterial breakdown of organic matter or chemical oxidation of organic and inorganic substances, eutrophication effects resulting from addition of high levels of nitrates and phosphates, effects of toxic substances which cause physiological changes in living organisms, pathogenic effects resulting from addition of wastes containing pathogenic organisms, physical effects such as increased turbidity due to addition of suspended solids and rising temperature, and effects resulting from accumulation of radioactive substances in food organisms.
Sewage pollution is mainly concern of rivers that passing through the city. Sewage effluents of a city varies from city to city. Swage effluents contains–industrial wastes, rain water, water from domestic baths and washing machine, fats, faccal matters and anything washed down drains or flushed down the toilet etc.
Sewage is piniari1y organic nature. It is subject to bacterial decay. Due to bacterial activity water oxygen is reduced and hence biological oxygen demand (BOD) increases. BOD is one of the parameters that directly indicates the pollution mainly caused by bacterial activity and hence sewage effluents become a matter of concern.
The aquatic life in water ecosystem in starve of oxygen, used to breakdown of proteins and other nitrogenous compounds, releasing hydrogen sulfide and ammonia both of which are potentially toxic in low concentration.

Benthic flora and fauna are badly hampered by the increase of solid suspended materials in river waters. Flora increases productivity of the water system. Sewage also contains high concentration of suspended solids materials. Observation made on the basis of these parameters have been used for understanding these phenomena and pollution effluents of the sewage. Sewage also contains decaying natters and nutrients that helps the plant growth. Excessive plant growth and oxygen depletion can lead to Iterations in ecosystem. The disturbance in the ecosystem structure may concern in the features of eutrophication. Eutrophication means excessive growth of algae due to increase nutrients inputs.

Raw sewage also contains various strains of bacteria and viruses. These microbes can cause health risk in containing ear, nose and throat infection. Stomach upset is also one of the causes of microorganisms that directly comes through the sewage. Faecal streptococci bacteria are more closely associated with human sewage that causes many diseases.

Many National and international organization are working to prevent water pollution. In modern age preservation of water quality and management of water resources have become essential prerequisite.

In the beginning of 19th century, Britishers released for the first time the fact that the condition of rivers was getting worse and worse. This can be considered due to untreated sewage and its effluents were being discharge into the river water born diseases became prevalent. As the situation was alarming, many acts of parliament were enacted and 1847 saw the in attachment of Gas Works Clauses Act, prohibiting the discharge of Gas waste. Similarly, pollution of Salmon waters was declared and offence under the Salmon Fisheries Act of 1861 and 1865. In 1857 a Royal commission on prevention of river pollution was setup.

In India, however, downside of pollution got correct attention solely once independence. And it absolutely was as late as 1974 once the primary Act of parliament was enacted during this affiliation. This act is apprehend because the Water interference and management of Pollution Act 1974, has the availability for the institution of Boards with a nominative power and functions for the interference and management of the pollution and also the maintaining or restoring of quality of water. In 1975, by victimisation the facility bestowed by the Water interference and management of Pollution Act 1974, the central Government once the consultation of the Central Board for the interference and management of the pollution created variety or rules, that area unit called the water (Prevention and management of Pollution) cess Act. 1977 was enacted with associate aim to extend the resources of the Central and State Board for the interference and management of the pollution recognised below the 1974Act. This Act of 1977 has the availability for the levy and assortment of cess on water consumed by bound industries and native authorities. below the availability of Act of 1977, rules were created in 1978 that area unit is aware of because the water (Prevention and management of Pollution) cess Rules 1978. In India. Government of Bharat has already set a separate Ministry called Ministry of setting and Forest Consisting of the many pollution boards at totally different levels. World Health Organization (WHO) is one in all the chief international organizations that offers tips of various varieties of pollution. United Nations agency has conjointly prescribed the amount of pollution in water. In state too, many researches studied on limnologicl factors (Nasar 1975; Nasar and Nosar 1976; Satyendra N. Bose|Satyendra Nath Bose|nuclear physicist} and Bose l977; Siddique *et al*. 1980; Ramakrishnaian and Sarker 1982; Saha 1983, 1985; Venma and Munshi 1987; Prasad and Verma 1988; Singh and Ahmad 1990; Singh 1992; Kund 1993. However, these works expressed higher than area unit fragmental and wishes a lot of attention towards limnologial work–specially pollution management of ponds caused by sewerage effluents. This work is associate approach to meet the higher than demand.

Conclusion

This paper reports regarding to assess the quality of water and to determine the extent of pollution in the pond of Darbhanga District caused by sewage.

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