

Water Standards and Water Quality Management In India

Dr. P. B. Achole

Associate Prof
Head Dept. of Geography
Azad Mahavidyalaya AUSA, Latur.

Mr. B. M. Swami

Assistant prof,
Dept. of Geography
Walchand College Arts and science solapur

Introduction

Water is not only essential to sustain life but to support ecosystems, economic development, community well being, and cultural values. Water is national wealth constituent of life support system. Water is most significant natural resource. Many rivers of the country receive heavy flux so sewage industrial effluents agricultural wastes which contain substance varying from simple nutrients to highly toxic chemicals. (heavy metals). Traditionally hydrologist involved with social water issues measures the water scarcity by per capita availability or use. i.e. The water available or used in a region per person. Characteristics of fresh water use in and distribution leads to a wide range of water related problems and quality completion severe human health problems and constraints economic development.

Objectives:

The present research paper studied is directed to the following main objectives.

- 1 to study the water standards and water managements in India.
- 2 to study water quality management issues and future outlook.

Methodology and data base:

The present study is entirely based on secondary data. The data is collected by published environmental books, environmental articles and some government websites to related water management policies. and report based resources of municipal solid waste disposal information journals.

Status of water pollution and control:

The water pollution indicates that status of sewerage facility and sewage treatment in Indian cities /towns. The basic causes for such gross inadequacy in sewerages and sewage treatment systems are the following

Human settlements:

There are no proper infrastructural facilities for proper collection, treatment and disposal of liquids and solid wastes including sewerages. Lack of planned drainage system in urban area.

Industrial sources:

This is huge build up of industrial sectors in post independence era. There are large, medium and small establishments-about 300 to 4000 in total. How many of these are equipped with waste, waste water and efficient treatment plants and little reuse in other sector.

Documentation and implementation programmes for industry specific pollution control

There progress made so far has been along the following lines of approach at national level:

Industry documents:

Comprehensive documents have been under preparation by pollution regulating agencies pollution control board (at central as well as state levels) such document could prescribe the specific maximum limits of concentration of individual pollutant for effluents of industries . The industry specific minimal national standard (minas) are evolved. Describe them under pollution control bylaws.

Implementation programs

National implementation programmes could be planned in each five year plan period for different industries. These are to be implemented by central and state pollution control boards.

Status of surface water quality:

There could be planned effective programme for monitoring the status of surface after quality.

Monitoring Network

There is as national network of monitoring surface water quality. CPCB has established a number of monitoring stations along the entire river network all over the country for measuring the water quality.

Ganga water quality.

The central Ganga authority could finalize Ganga action plan to restore the quality of water of this river . Three state governments ; Uttarpradesh, Bihar and west Bengal have been given adequate funds by the centre for this purpose. This has already been described under Ganga action plan.

Status of subsurface water quality:

There are efforts going on to monitor the ground water quality also.

Ground water network :

The task of setting up hydro geologic system in different hydrographic stations was begun by the geological survey of India in 1969. Later, central ground water board (CGWB) could assist the plan and helped establishment more such stations. There are several thousand such stations in the country. Most state governments have also set up such as stations.

Naturally Acquired Ground Water Quality:

The ground water in some parts of Andhra Pradesh , Karnataka, Punjab and Haryana, has excess of fluoride. Several districts of Madhya Pradesh ; Punjab , Rajasthan and Tamilnadu have excess of nitrates in their ground waters.

Anthropometrically Acquired Ground Water Quality:

Ground water becomes polluted by industrial pollutants. CGWB monitors the industrial effluents for pollution load. There is problem of well water pollution by heavy metals and other toxicants. In Delhi, Ahmadabad, some areas of Punjab , Rajasthan and Tamilnadu there is such problem.

Status of coastal water quality:

Coastal waters become polluted due to activities in ports and harbors, sewage discharges from human settlements along the coast and the industrial effluents. Also rivers discharge the entire load lastly to seas (the ultimate sink). There are many coastal cities in country the CPCB

could constitute a network to monitor the quality of coastal waters for pollution levels. These are 17 class I and 13 class II coastal cities/ towns in India

Water Quality Management Issues:

To manage water quality must evolved both, short as well as long term measures before it is too late.

Short term measures

These include the following's) pollution controls at urban settlement sources .ii) proper pattern of sewage collection systems. iii) Sewages regulation discharge of effluents only in municipal sewers and ensure that these do not harm the system and work men and the process there in. iv) pollution control and industrial sources. v) Environmental planning guides for industrial estates. vi) Protection of drinking water sources. vii) coastal managements.

Long term measures

For these pollution control programmers are to be planned on the basis of each river basin. Such plans would included: i) preparation of water use map to classify and zone river waters based on best uses.iii) evolution of pollution potential in the river basin .iii) preparation of water quality map on the basis of continuous water quality monitoring.

Rural water supply :

Then water conference ,held in Mar De Plata(Argentina) in march 1977 decided to observe 1981-90 as the international drinking water supply and sanitation decade (IDWSSD) during which all nations of world would undertake concerted efforts to provide safe drinking water and adequate sanitation for all people. India set forth target for 100% water and 25% sanitation facility to rural area 80% sanitation to urban area. There are over 500 million in rural areas of which hardly 170million have access to safe drinking water government of India undertook country wide survey and formulated rural water supply scheme for 14 major states. Adequate funds and other facilities are being provided. But lot is still to be done on his front.

Future outlook

The water (Prevention and control of pollution act was promulgated in 1974 and amended in 1988, a serious concern about water quality controls could be generated only recently. The CPCB in collaboration with SPCB is tackling this problem at war footing. The water (Prevention and control of Pollution) Cess Act, 1977 could recognize the value of this resources. Every drop of water used in industry is levied. There should be less waste of water. Chronic power crisis is limited factor on pollution controls. Waste treatment needs power. We must evolved low power-requiring technology.

Conclusion:

Sewage pollution from large human settlements is the major causes of water pollution in our country. Thus the country as a whole will need to look in to a problem very seriously .to avoid establishment of new industries without pollution control source , we must revise the policy of licensing and subsequent followed-up action. While setting up a new industry, environment impact assessment is necessary for making correct decisions about possible negative impact in urban sector, a proper land use plan is to be evolved to contain the stress of

environmental pollution on residents. The continuous use of water for generations by man has influenced the quality and quantity of water. When the human population was limited the use of water was also limited. Change in the quality of water which may have adverse effect on environment is considered as water pollution. Awareness of people about the water pollution is necessary it can help in prevention of water pollution as well as improvement of its quality. Inspection of sewages or trade effluents, work and plants for the treatments review plans specification for treatment of water and disposal of sewages are also considered by the board. Research regarding more economical methods of sewages treatment is also encouraged by the board.

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