



Short Communication

Biodiversity bad situation and human population study in Patna Town by considering the Heavy utilization of underground water in May.

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ABSTRACT

Freshwater is discovered in thirty percent of the ground which lands located by several water sources and humans living there along by eighty percent of bio-diversity. The human population is growing and requiring freshwater. Now humans are relevant eighty percent of freshwater to underground water for farming and daily activities in urban areas. By considering the heavy utilization of underground water, the surface water sources are influenced, especially in the summer. Patna is the capital of Bihar state (India), and the urban zone is developing so quickly now loaded by about 2 million people restricted with Sone, Punpun, and Ganga by Gandak rivers. The ground is plain and there are a dozen ponds for recharging the underground water. In May, the Punpun River includes little water, Sone and Ganga contain lower than ten percent of water in October. People are utilizing underground water by mainly utilizing tube well of >200 feet depth that is go down thirty to fifty feet deeper every year according to slightly restore velocity. It is according to minimum rainwater production. Most of the rainwater runoff is in the Ganga River. Patna requires twelve billion liters of water for billions of rupees in May, and the temperature increases 5 to 7 Degree Celsius higher than the temperature of April generating an alarming condition in the community, especially for fishes, amphibians, birds, and even mammals. The condition becomes so difficult while air contamination, fluoride, and arsenic toxic generate death to organisms cause extinction. for meeting this threatening condition, each rainwater drop must be gathered by the pond's network. At least > ten percent of the land is needed for ponds for meeting the need for water of the increasing human and other organisms for saving green earth.

Introduction

Underground water is a very important water source for urbanization. All urban organism requires water that is provided eighty to a hundred percent with underground water. Underground water need is minimum in winter and maximum in summer particularly from 15 May to 15 June in Patna. In this course, underground water recharge is insignificant. Therefore, before raining, the underground water absence is felt according to the failure of tube well and hand pumps. More

underground water usage generating harmful for the organism for surviving.

Patna, the capital of Bihar (India), is one of the quickest-growing populations influencing more on the underground water quality. Heavy water needs in summer induced failure of the most water resources and produce alarming conditions. Therefore, it is a subject of the organism extinction that should be removed.

Methodologies

The Patna town density has been studied and resources of water supplies have been reported. In summer threatening conditions of the human population and other dependents have been investigated. The removal of the threatening condition has been found out.

Discussion and Results

Patna city is meeting growing of people of one lakh people every year reached > 20 lakhs people. The population is utilizing just underground water with:

1. Handy pumps

It is about 120 feet in depth and has not been found working since January. Therefore, most of the handy pumps have been eliminated since of not supply water during the summer. However surface water such as a river, ponds, etc are located, and handy pumps have been discovered workable though its water quality evolves worse as the temperature of the environment grows. Therefore, also these handy pumps according to high TDS are no hygienic.

2. Water provided to the municipality by water tube wells:

The government has set a tube well of 500 feet in depth by high water store, a distance of 200 to 500 meters among 2 tubes well. The store pipes run via drainage found leakages induced polluted water store to needy places, the people are compelled for drinking which waters especially in summer. Some buildings get this water for filling the plastic tanks with water pumps, since the force of water discovered very negligibly for reaching four-storied buildings, municipality water tube wells evolve fell to provide during summer and the situation become threatening.

3. Private water tube wells

It is discovered single the building of 600 sq. feet to 2700 sq. feet that is mainly found by lower and higher power motors for meeting the needs of the building. The tube well depth is 200 to 300 feet. Tube wells of 200 feet in depth are found, unsuccessful for supplying water due to less recharge capability of water level going down to 30 to 50 feet each year in May. The water TDS is discovered so high that the population might be influenced. Growth in the depth of the tube well is induced by less recharge influenced by the increase in residents. On this >80-100 percent of the population is dependent as tube well in summer.

4. Recharging situation of water table 2 with the river:

Patna city is surrounded by Ganga along with Gandak in the North, some in the west, and Punpun in the south and the east. Therefore, it is nearly surrounded by rivers. While in May, the Punpun River includes little water and Sone low portion of water and Ganga includes of ten percent

of water in October. Therefore, a severe reduction in water quantity is according to the heavy utilization of groundwater by the population. Therefore, the main resources of water are unsuccessful in providing water for the growing population in Patna. Therefore, rivers can't remove the threatening condition in May.

5. Ponds:

Ponds number in Patna town is reduced to a dozen ponds that contain the minimum water in May, Ponds number is little to restore the underground water and exceed the summer.

6. Other sources the road and drainage are surrounded by cemented plates. The water discovered in the drainage is incapable of recharging the city groundwater. It is revealed the city outside that recharge capacity is discovered more negligible. The rainwater harvested by the building isn't obtainable and the land is cemented. The building land location is so small for a favor to rainwater harvest plant.

Therefore, in Patna city, water for other organisms is least obtainable, the left water for other organisms is least obtainable, and the left water of the municipality tube well is discovered the main resource of water for road dogs, cats, and rats, birds, and other mammals. There is a problem in the bio-diversity along rivers of Punpun, Sone, and Ganga on which the most of the birds and other mammals are related, therefore water lack and contamination along with highly temperature in May generated a threat for extinction.

How to eliminate the threatening position?

Heavy utilization of underground water might be balanced with standard charging with straight surface water filtration of that area. It might be compensated with (a) rain water reservoir be every house (b) drainage shouldn't be cemented in its floor (c) small ponds approx chain (100*50) in an interval of 500-meter lengths (d) branches river perhaps half-closed from the floor. In this approach, every drop of rainwater and removed groundwater may be completely used after recharging the underground water location. Neha Jaiswal et al. (2012). Fluoride influence as white poison affects teeth, bones, leaver, stomach, kidney, and developing fetus.

Umesh Chandra Joshi and Shashank Joshi (2004) showed the unique water features. 1.2 billion people don't have safe clean water for drinking. 1/3 of the world's people live in moderate-high water stress. In Rajasthan, it is a typical method for restoring rain water in boolis'. Household roof water harvest is experienced in some regions of India. H.S. Shergill (2003) said that Rainwater harvest and groundwater recharge could suggest a solution to the freshwater control issue. Mintul Ali and Saurabh Sharma (2009) noted that food security and the quality of people's lives are near connected to water.

Harendra Raj Gautam and Rohatshav Kumar (2006). By considering the International Management Institute, 250 Cubic Km of water are pulled for irrigation every year in India that the rain set back about 100 Cubic Km, leading to gradual aquifers shortage. The threatening position isn't a consequence of lower rainwater while very useful rainwater wastage. Tata Institute of Social Sciences demonstrated in the study, which, fifty lack homes in Mumbai, Delhi, Kolkata, Hyderabad, Kanpur, and Madurai are to water scarcity. Satish V Kulkarni (2013) noted that unexpected rainwater and quick urbanization lead to cities suffering from water deficiency and problems of urban flooding. Rainwater harvest is the improvement of groundwater quality with recharge of water in the aquifers.

Conflict of interest

The authors declare that they have no conflict of interest.

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