



SALWAN PUBLIC SCHOOL

Sector-15 (II), Gurugram

Holiday Home Work

Integrated Project - (2018-19)

CLASS – IX

Water Crisis In India: A Case Study

For the women in India's rural areas getting a bucket of drinking water is a daily struggle in which most cases women walk an average of 2.5 km to reach a source of water that is often contaminated with high levels of fluoride or is too saline to drink.

Residents of the Sewri slum show up daily at an illegally tapped water pipe that runs from 6:30am to 7:30 am to fill as many containers of water as they can for their daily use. It is the residents' only source of water since they don't have the money to have water trucks deliver.

Farmers with no other alternative are forced to use the toxic waters of the Yamuna River to irrigate their crops. The river is their source of life and without it their crops would fail. Mangi villagers wait for a water tanker that arrives twice a week to replenish their dried up water well; the land here is ferociously dry, suffocating! and the trees have seemed to have sucked every last bit of water that they possibly could from the parched soil.

Water crisis as defined in Wikipedia –

A water crisis is a situation where the available potable unpolluted water within a region is less than that region's demand.

Let's have a much more closer and factual look at this situation –

Fact No. 1 – The population of India is expected to stabilize around **1640 million** by the year **2050**.

Fact No. 2 – In year 2001 gross per capita water availability was $1820 \text{ m}^3 / \text{yr}$ (today it has gone down further)

Fact No. 3 – In year 2050 it will decline as low as $1140 \text{ m}^3 / \text{yr}$

Fact No. 4 – Total water requirement of the country for various activities around the year 2050 has been assessed to $1450 \text{ km}^3 / \text{yr}$.

Fact No. 5 – This is **3 times** of present availability of $\sim 500 \text{ BCM} / \text{yr}$ (1 BCM = 1 cu kilometer)

**these are real numbers and unless we do something a very frightful scenario awaits us in the future.

Now that we have our facts straight, let's try to assess the situation on why we are facing such scarcity of water and what could be the possible solutions to the problem? Let's be a little straightforward and ask ourselves what is the root cause of scarcity of water in India?

To answer this question we have to be a little thorough.

Geographically India has been gifted in abundance by nature. Nature provides enough rainfall which is sufficient for our needs. But today, global warming is resulting in unpredictable monsoon which causes less number of rainy days with high intensity.

The problem thus is not low rainfall but erratic rainfall.

Next cause can be the wastage of already low rainfall by Indian people. India seriously lacks in water harvesting techniques.

As per Groundwater Survey & Development Agency (GSDA) of Maharashtra state.

55% of Rainwater is wasted as run off
35% of Rainwater is wasted as evaporation
& a mere 10% of Rainwater is harvested

Moreover high population of India adds to the crisis faced by us. India holds about 1/6th of total population of world and only 1/50th of the total of water resources so it is clear that India is already beyond its capacity.

Dependence of the most of Indian population on agriculture is also a reason for scarcity. With more and more innovations extracting ground water has become very easy and fast so the ground water is also lowering at a high rate.

Pollution of rivers in India is also an important cause of water scarcity. Condition of river Yamuna is pitiable in Delhi. Rivers are being used as dustbins in major cities which leads to a loss of drinkable water.

This leads us to the conclusion that not only are we facing a water crisis but we are also facing water scarcity. The Consequences of both can be devastating.

Water scarcity has lead to various problems like water borne diseases, interstate disputes, failing of crops etc. Out of total people admitted in hospitals at any time, 88% of patients are due to water borne diseases. Low availability of water leads to improper sanitation which again leads to health problems.

India ranks a poor 120 in a list of 122 countries ranked for their water quality and also their ability and commitments to improving its quality in a World Water Development Report. In

terms of water availability India has not fared well. She is ranked as lowly as 133 in a list of 180 countries. India's neighbours, Bangladesh, Sri Lanka, Nepal and Pakistan have fared better than India occupying the 40th, 64th, 78th and 80th slots respectively (The Indian Express, New Delhi , 6 March 2003).

India's population recording a current annual increase by 15.5 million has to inevitably face the greatest challenge conservation and equitable distribution of the limited fresh water resources. And its management is inextricably intertwined with future growth and poverty alleviation, population growth and per capita water availability.

Table 1(1) Need and Shortfall in 12 major cities

City	Need (million litres/day)	Shortfall (million litres/day)
Delhi	3830	880
Lucknow	560	120
Kolkata	2258	690
Jaipur	349	313
Jabalpur	239	945
Bhopal	335	70
Indore	318	134
Visakhapatnam	305	146
Mumbai	4000	1030
Hyderabad	956	186
Chennai	300	105
Bangalore	840	135

As shown in table 1(1) , a study of 12 major cities reveal that while they require over 14000 million liters of water per day ,they get only 10,000 million liters .Due to water shortage ,over 200 million people are vulnerable to water wars. In Neemuch (Madhya Pradesh), one person was killed and six injured in May 2003, when people fought for water with swords and knives. Such sporadic incidents could become routine.

Water is the biggest crisis India is facing in terms of spread and severity, affecting one in every three persons .Even in Chennai, Bangalore, Shimla and Delhi ,water is being rationed and India's food security is under threat. With the livelihood of millions at risk, urban India is screaming for water. For instance ,water is rationed twice a week in Bangalore ,and for 30 minutes a day in Bhopal , 250 tankers make 2250 trips to quench Chennai's thirst .Mumbai routinely lives through water crisis from January to June ,when some areas get water once in three days in Hyderabad.

A survey conducted in a 32 apartment in Bangalore for their domestic water consumption resulted into following data:

Table 1(2)

Water Consumption (in litres)	No. of flats
0-2000	2
2000-4000	3
4000-6000	2
6000-8000	5
8000-10000	6
10000-12000	6
12000-14000	1
14000-16000	3
16000-18000	2
18000-20000	2

Prepare a Power Point Presentation including all the following tasks and present it in the class. Design a creative cover page for the same.

Q1.

- A) Represent the data given in table 1(2) in the form of Histogram.
- B) Represent the data in Table 1(1) Need (million liters/day) and in 12 major cities in the form of bar graph.
- C) Represent the data in Table 1(1) Need (million liters/day) and Shortfall (million liters/day) in 12 major cities in the form of double bar graph.

Q.2. Write a descriptive paragraph sketching the current conditions of the villages in India regarding water crisis. Use visual illustrations to make your paragraph effective.

Q.3. 'जल है तो कल है' पर एक आकर्षक विज्ञापन तैयार कीजिए।

OR

‘जलम् एव जीवनम्’ इति विषयम् अधिकृत्य अनुच्छेदम् लिखत

OR

Watch the Movie : Splash – The Water crisis or Water bomb

Make a Graphic organizer (three column table) in Japanese :

What ? (what is your observation on water crisis)

(**nan desuka**)

So What ? (any connection/feelings you have with the movie)

(**anata no kimochi desuka**)

Now what ?(What can you do to improve the situation)

(**doo shimasuka**)

OR

- A) Citez 5 raisons à cause desquelles nous sommes en face d’une crise de l’eau.
- B) Expliquez la signification de l’eau à notre survie.
- C) Comment peut-on sauver de l’eau et minimiser le gaspillage de l’eau?

Q.4.

- A) Compare the difference in the water bills of your home for the past 6 months and represent it in the form of a bar graph. Analyze the difference and draw conclusion.
- B) Write any five ways that can be adopted in daily routine for reducing the amount of water at the individualistic level?
- C) Design a water purification plant at your home using eco friendly and natural substances and bring the model to the school.
- D) Explain any three ways for purifying the water at home.

Q.5. Water is one of our most precious resources and as much as we want it to be, it is not an infinite resource. Water is all around us but only 2.5% of water is fresh water. A main problem that we face all over the world is to meet daily needs of water- 1 in 3 people around the world suffer as water isn’t as accessible to them for their needs. We struggle to get water directly to communities far and near, and this problem gets worse due to climate change, deforestation, increased population and urbanization.

This problem is only going to get worse as cities and populations grow and as the need for water increases in agriculture, industries and households. As demand increases, we keep digging deeper and deeper to find it. Farming accounts for 70% of water use and as the population will keep increasing the usage will also increase. We need the right crops and planting methods, better water supply system, environmental restoration and climate forecasting to reduce water crisis and flood risks.

Details of the task:

Month	JUNE
Topic	Water Crisis
Content Coverage	<ul style="list-style-type: none"> • Causes of Water Crisis • Coping with Water Crisis • Effects and mitigation measures • Map showing different zones of Water Crisis in India.
Nature of task	Individual Activity
Learning Objectives	To make the students aware and better prepared to minimize the loss of life and property.
Task / Tools / Techniques	Study material from NCERT book, news papers and magazine etc.
Execution of task / Procedure	<ol style="list-style-type: none"> 1. Each student will research individually and prepare content on the given topic. 2. Each student will prepare a Map of India showing different zones in the file. 3. Students to illustrate the topic with the help of pictures and diagram.
Criteria / Rubrics for Assessment	The students will be assessed on the basis of: Content accuracy and originality –(1 Mark), Presentation and creativity-(1 Mark), Process of Project completion-Initiative, Cooperativeness, Participation and punctuality-(1 Mark), Viva or written test for content assimilation-(2 marks)
Success Criteria	Students will be better prepared to face such disaster in the overall interest of the community.

Music and Dance

Class IX

Vocal	Life sketch of Tansen ji
Instrumental	Life sketch of Tabla Pt.Kishan Maharaj ji
W.Instrumental	Write down the 12 major scales.
Dance	Write about Nav Rasas in Indian dance

NOTE –Holiday home work will be done in a file or a scrap book.

File or scrap book should be made creative and beautiful.