

## **BASANTI DEVI COLLGE**

### Misuse of Water, Causes the Vulnerability of Water Resources



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## DECLARATION

I, Devapriya Saha, student of semester – II of Basanti Devi College in the year 2022, hereby declare that the project entitled “**Misuse of Water, Causes the Vulnerability of Water Resources**” has been carried out by own efforts under the general supervision and guidance of department teacher Mrs. Udit Mukherjee (Environmental Studies).  
The information given in the project is authentic. This project has not been copied from anywhere.

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## Abstract

Water is the most valuable natural resources as it is essential for human survival and life on earth. However, the availability of freshwater for human consumption is highly under stress because of a variety of factors. This crisis of water scarcity is most visible in India as well as in other developing countries. India is water-stressed due to changing weather patterns and repeated droughts.

India's water crisis is a constant because of water misuse. The average person unknowingly misuses or wastes up to 30 gallons of water every day. Overflowing overhead tanks, excessive use in flushing in toilets, wastage of water in bathing / hand wash / kitchen use-these are several reasons for misuse of water.

Water shortages are hurting India's capacity to generate electricity. Other hand ecosystem, environment, agriculture and economic growth of India may suffer due to water crisis.

Solving water crisis means that every person must be aware of the crisis and take part in stopping water misuse. In India the amount of water that is wasted when using any thing at home is significant. Therefore people should use water in a proper way for conserving the water resources and solving the water crisis.

## Introduction

Water is one of the most precious resources on earth because **it is needed for life to exist**. 3% of the earth's water is fresh. But 0.5% of the earth's water is available fresh water. At present water scarcity is the biggest problem due to misuse of water. Misuse occurs where clean water is abstracted and returned to the water system in an unusable state.

### The Causes of Misuse of Water

Some of the causes of water misuse are:-

- Often at public water places, taps are opened as there is no one to care about.
- Leaky tank valves draining water into the toilet waste up to 1,000 gallons of water a month.
- Many buildings have leaky and faulty pipelines. These are the reasons for constant wastage of water.
- Washing car with high pressure water pumps.
- Poor water management etc.

(source) – <https://greensutra.in/news/common-causes-water-wastage/>

**India** is the one of the biggest users of groundwater. But due to misuse and overuse of water resources, the groundwater level has fallen alarmingly over the years. The demand for water will be twice its availability by the year 2030, indicating severe water scarcity. Water scarcity in India is an ongoing water crisis that affects nearly hundreds of millions of people each year. In addition to affecting the huge rural and urban population, the water scarcity in India also extensively affects the ecosystem and agriculture. The crisis has especially worsened in the recent years due to **climate change** which results in delayed monsoons, consequently drying out reservoirs in several regions. About 17% notified states and cities face water shortage in recent years. Most of the states like Maharashtra, Uttar Pradesh, Delhi,

Karnataka, Jharkhand, Andhra Pradesh, Rajasthan, Gujarat and Chennai have been serious water crisis since **2018**. Several large cities of India have experienced water shortages in recent years, with **Chennai** being the most prominent in **2019**.

Unfortunately, more than half the rivers are polluted and considered unsafe by modern standards. Approximately 163 million Indians don't have access to clean drinking water. 21% of the communicable diseases are linked to unsafe drinking water. Everyday 500 children die because of diarrhea in India.

(Source : [https://en.wikipedia.org/wiki/Water\\_scarcity\\_in\\_India](https://en.wikipedia.org/wiki/Water_scarcity_in_India))



<https://knoxvilleplumbing.com/wp-content/uploads/2021/02/2-Drain-Water-Jetting.jpg>

<https://jgdetailing.pl/img/cms/mycieauta-myjka.jpg>

## Effects of misuse of water

**People:** The scarcity of water in India affects hundreds of millions of people across the country. A major portion of the population does not have a reliable and constant means of getting water for their daily needs. Since tap water is unavailable in many cities including some megacities such as **Chennai**, residents are reliant on alternative water sources. The country has scattered public water pumps but a lot of them are located far away from cities and their water flow is intermittent and unpredictable. A lot of Indians are forced with the option of spending money to buy drinking water but the poor sections of the society are unable to afford it on a daily basis which creates a

massive problem of water scarcity for the rural population of India.

**Ecosystem:** Water scarcity also threatens the lives of wild animals across India. Wild animals are forced to infiltrate villages and cities in India as they attempt to find potable water. Eventually, local wild animals like elephants, tigers started to sneak into the cities in search of water. In the Madurai district, the acute water shortage caused Indian gaurs to die by falling into wells as they looked for water.

**Agriculture:** Water is essential to the popular occupation of agriculture in India. Farmers are unable to produce crops in the absence of water. The drought in 2019 even destroyed the supplementary crops in addition to the winter crops. The scarcity of water has rendered a lot of valuable farmland in India completely useless and much of the farming industry in these regions has ceased to operate. Much of the local economy and farming regions nearly collapsed as the citizens were left with no choice but to use the polluted water.

(source :-- [https://en.wikipedia.org/wiki/Water\\_scarcity\\_in\\_India](https://en.wikipedia.org/wiki/Water_scarcity_in_India) )



<https://www.shutterstock.com/image-photo/water-crisis-serious-threat-india-worldwide-1436309570>

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## Objectives

The objectives of the project entitled “Misuse of water, causes the vulnerability of water resources” are as follows :-

- To identify the causes of misuse of water
- To increase awareness among the people about the water crisis.
- To stop misuse of water resources for saving our environment.
- To discuss the importance of water conservation.
- To reduce excessive use of water in daily life.
- To discuss about the impacts of water crisis on the ecosystem.
- To provide guidance to the people for proper use of groundwater.
- To improve irrigation and agricultural water use.



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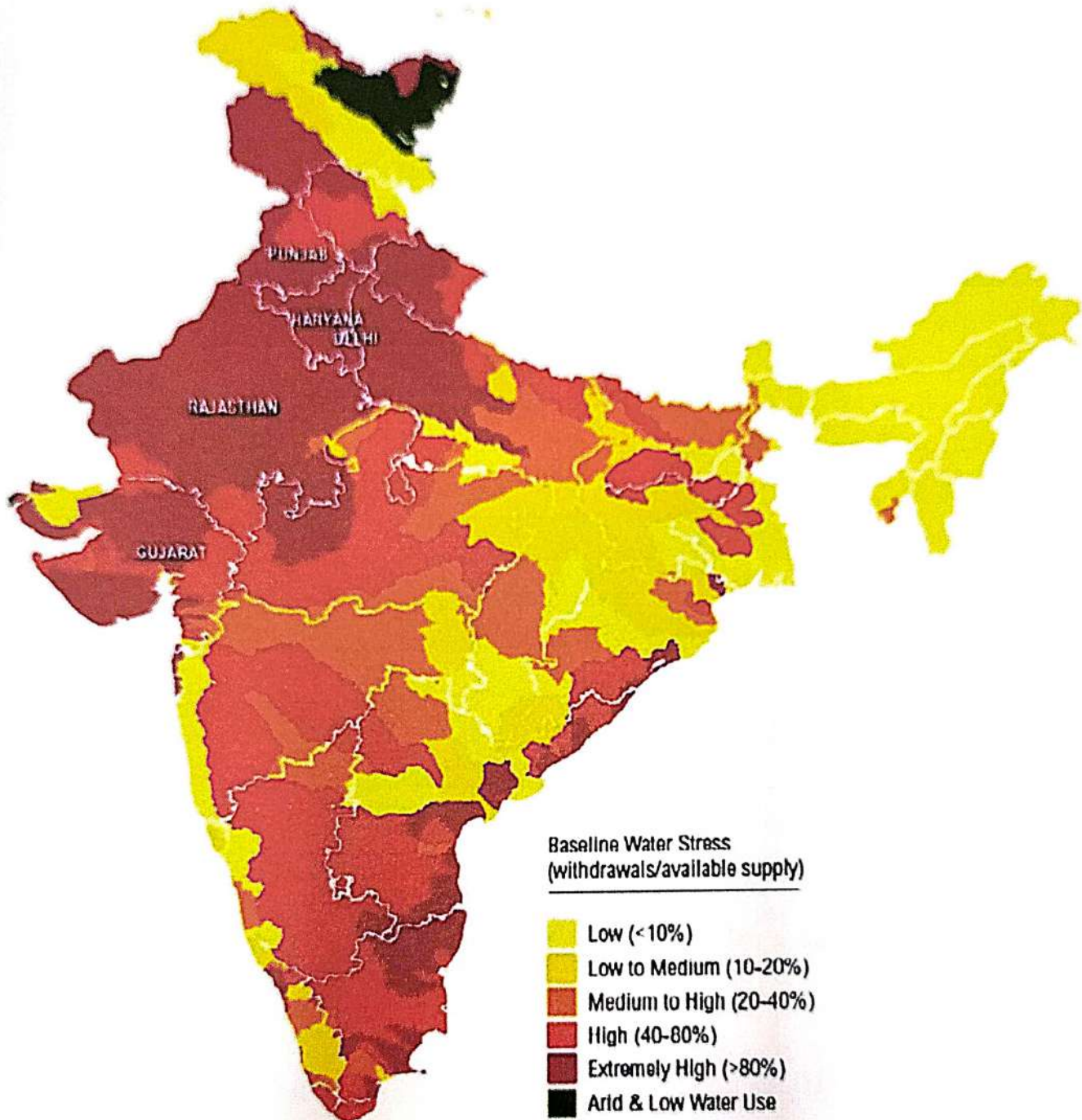
<https://www.financialexpress.com/wp-content/uploads/2021/04/water-620x400.jpg>



## Map

One of the reasons for depletion of water resources is misuse of water. As a result 54% of India faces High to Extremely High Water Stress.

### WATER-STRESSED AREAS

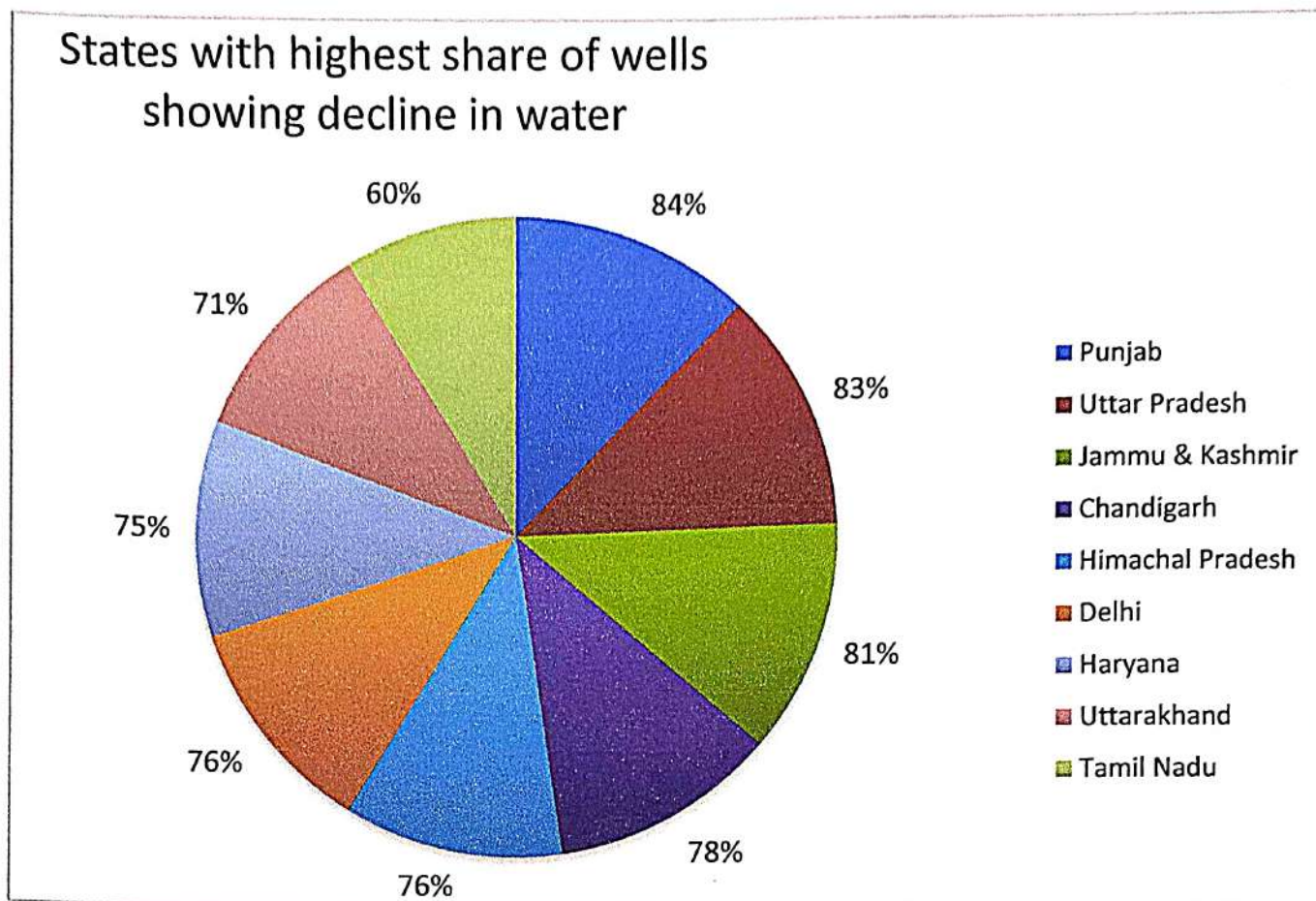


Source :- <https://www.researchgate.net/profile/Karunesh-Shukla2/publication/325890909/figure/fig1/AS:828977337868288@1574655007542/Water-stress-in-India-about-54-percent-of-geographical-area-faces-high-to-extremely.jpg>

## Problems in the Country

### FALL IN GROUND WATER LEVEL

52% of India's wells show a fall in water level



Based on water level data for 2018 vs the decadal average (2008-2017)

Source :-

<https://twitter.com/cnbctv18news/status/1144599101645848576>

## Evaluation

Water resources are source of water that are useful to humans and other living organism. **Leonardo da Vinci once said, "Water is the driving force of all nature."** India has four percent of the world's water resources, but in 2011, it moved to be water-stressed. India is suffering from the worst water crisis in its history and almost 600 millions of its population is water deprived. India's water problems are both huge and complex. For preventing the problem of water scarcity, people in both rural and urban areas should be aware of the crisis and saving the groundwater and stopping excessive use of water resources. Unnecessary use of water should be reduced in every household. Until people solve the water crisis, it may be beneficial to limit the expansion of the population. This will lead to more accurate predictions of water needed for the next 100 years. If misuse of water is not stopped, in future it will become a critical issue in India.

Every person on earth needs water to survive. Without it, many of people would get sick and even result in death. It is the duty of human beings to protect every resource of the environment. **Conserving water is important because it keeps water pure and clean while protecting the environment.**

## Limitations

The Limitations of this project are given below:-

- Time bound
- Location problem
- Single-handed project
- Practical difficulties
- Lack of information
- Lack of discussion

## Conclusion

In recent times, the water crisis due to misuse of water in India has become very critical, affecting millions of people across India. Therefore people should save water resources and stop misuse of water to protect the whole environment and ecosystem. All living things need water to survive. At the community level, water conservation is absolutely necessary to reduce pressure from groundwater and to supply water for human consumption. Thus, development of community level water harvesting structures like water bodies is important.

## Glossary

### Term

Conservation

### Description

prevention of wasteful use of a resource.

Consumption

the using up of a resource.

Droughts

a prolonged period of abnormally low rainfall, leading to a shortage of water.

Ecosystem

a biological community of interacting organisms and their physical environment.

Intermittent

occurring at irregular intervals; not continuous or steady.

Infiltrate

enter or gain access to surreptitiously and gradually, especially in order to acquire secret information .

Misuse

use (something) in the wrong way or for the wrong purpose.

Reliant

dependent on someone or something .

Scarcity

the state of being scarce or in short supply; shortage.

# Reference

## Links

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