

TOPIC : WATER SCARCITY IN PAKISTAN

Introduction.

What is water crisis. water crisis in Pakistan.

Causes of water crisis in Pakistan.

- ① Rapid population growth
- ② Poor management
- ③ climate change
- ④ lack of dams & storage bodies
- ⑤ wastage of water
- ⑥ Industrial pollution

Impacts of water crisis.

- ① On agriculture
- ② food insecurity
- ③ Health issues
- ④ Unemployment & poverty
- ⑤ Social Conflicts

Solutions to overcome it.

- ① More dams
- ② modern irrigation techniques
- ③ Public awareness
- ④ Recycling & Reusing
- ⑤ Water governance and international cooperation.

Conclusion.

Water scarcity means the shortage of ^{safe} real and clean water for daily use such as drinking, farming and industries. Water is one of the most precious gift and blessing. It is essential for survival, growth and development. Around the world, almost two billion people do not have access to safe drinking water, according to a **UN** report. This is not only a challenge for poor nations but also for developed countries. Water crisis in Pakistan is a growing problem that requires urgent attention and practical solution. The causes of this crisis include rapid population growth, mismanagement of water resources, climate change, lack of water storing bodies, wastage

of water in agricultural sector and household pollution. These causes have far-reaching impacts such as threat to agriculture, food insecurity, health issues, economic losses and social conflicts. However there are several solutions exists in order to overcome the problem. These solution includes construction of new dams, updating our irrigation system, awareness campaigns to reduce wastage, recycling of waste water and better water governance. If adopted in time, these solutions can prevent Pakistan from falling into the pit of water scarcity.

Among all the several causes behind water crisis, rapid population growth is the most important. Every year million of people added to population and the demand of water increases. Pakistan's population has crossed **240** million but the water resources remains same. Second, poor management of water resources has made the problem worst. A large amount of water is wasted due to outdated irrigation system like flood irrigation. In agriculture, which consume 90% of Pakistan's water, most of it goes to waste. Third, climate change is major cause of water crisis. Pakistan has 700+ glaciers and they have started melting quickly due to the raise in temperature and global warming. Sometimes their melting cause floods and sometimes long droughts has been withness. This imbalance cause serious water management problem. Another big issue is

lack of water storage facilities. Pakistan has only major few dam including Tarbela and mangla which can store water for maximum 30 days while India's water life is of 170 days. This shows how weak our storage system is. Industrial pollution also add to the crisis. factories discharge chemical waste into rivers make the water unsafe for use. Similarly, households waste clean water by leaving the tap open or using carelessly. All these reasons combine to create huge problem in the country.

The impacts of this crisis are very serious. Agriculture which is the backbone of country, is at higher risk. If there is no enough water crops like ~~wheat~~ wheat and sugarcane will fail. This will cause the food shortage and insecurity. Every year Pakistan spend billion of dollars to import food items because local production is not enough. Water shortage also leads to the closure of industries, unemployment and poverty. Health problems are another outcome. According to **WHO** 40% of deaths in Pakistan occurs due to water-borne diseases like diarrhea, cholera and typhoid. Furthermore, water shortage can create many social and international conflicts between countries. Dispute between provinces like Punjab and Sindh are already very common. If the crisis continue the conflict may be more serious.

Despite all these challenges, the effective solutions

also exist. The foremost solution is to increase water storage capacity by constructing new dams. The Diamar Basha dam, which is under construction, will have storage capacity of 8.1 million Acre feet (MAF). Similarly, the Mohmand Dam will store 1.2 MAF of water and help alot in irrigation system. Completion of these projects will ensure water availability.

Since agriculture consumes the largest ratio of water, modern and updated irrigation system must be introduced. Drip irrigation and sprinkler system can reduce the water wastage ~~from~~ by 30-40% while increasing crop productivity. Farmers should be encouraged through subsidies and trainings to adopt new method for irrigation. According to world Bank, Pakistan loss 13 MAF of water due to unlined canals. Lining watercourses and repairing canals can help us to prevent this huge amount of water wastage.

Another effective solution is awareness in public about saving water. Citizen must be educated ~~in~~ through media, campaigns and community programs. Simple step like closing taps while brushing, fixing leaks and reusing water can save billion liters of water annually. Countries like Singapore recycles 40% of there waste water, while Pakistan less than 1%.

Treated wastewater can irrigate crops and which can reduce the burden of using fresh water resources.

Last but not the least solution is water governance. Countries like Pakistan need a good water governance techniques and approaches. Provincial disputes must be resolved through fair agreements. Regional cooperation is very important. As Pakistan shares its rivers with India under the Indus Water Treaty, IWT must be review and update its stance under the light of climate change, and new storage projects. Pakistan need a National water Policy that ensure the proper planning, pricing and regulation of water usage across all the sectors.

In Conclusion, water is life, and without solving the water crisis, Pakistan can't progress. The problem is serious but if controlled on time several steps must be taken. Building dams, using modern technology and creating awareness are keys to solving the issue. As the Prophet (PBUH) said,

"Don't waste water if you were at a running stream"

By following His teachings, we can stop wasting water and use that water in a proper need, we can get over from this serious issue.