Drought FAQ

Q. 1) What is Drought?

Drought is the consequence of a natural reduction in the amount of precipitation o over an extended period of time, usually a season or more in length, often associated with other climatic factors (viz. high temperatures, high winds and low relative humidity) that can aggravate the severity of the drought event.

Q.2) What causes drought?

A drought is a period of drier-than-normal conditions that results in water-related problems. Precipitation (either rain or snow) falls in uneven patterns across the country. The amount of precipitation at a particular location varies from year to year, but over a period of years, the average amount is fairly constant.

When no rain or only a very small amount of rain falls, soils can dry out and plants can die. When rainfall is less than normal for several weeks, months, or years, the flow of streams and rivers declines, water levels in lakes and reservoirs fall; also the depth to water in wells increases. If dry weather persists and water-supply problems develop, the dry period can become a drought.

Q. 3) What are the different types of drought?

- Meteorological Drought
- Hydrological Drought
- Agricultural Drought
- Socio-Economic Drought

Q. 4) When does a drought begin?

4) When does a drought begin? The beginning of a drought is difficult to determine. Several weeks, months, or even years may pass before people know that a drought is occurring. The end of a drought can occur as gradually as it began. The first evidence of drought usually is seen in records of rainfall. Within a short period of time, the amount of moisture in soils can begin to decrease. The effects of a drought on flow in streams and reservoirs may not be noticed for several weeks or months. Water levels in wells may not reflect a shortage of rainfall for a year or more after a drought begins.

Q. 5) Defining and monitoring Meteorological Drought

In India, according to India Meteorological Department, meteorological drought over an area is defined as a situation when the seasonal rainfall received over the area is less than 75% of its long term average value. It is further classified as "moderate drought" if the rainfall deficit is between 26-50% and "severe drought" when the deficit exceeds 50% of the normal.

Q.6) What is Hydrological Drought?

Hydrological Drought can be defined as a period during which the stream flows are inadequate to supply established use of water under a given water management system.

Q.7) What is Agricultural Drought?

It occurs when available soil moisture is inadequate for healthy crop growth and cause extreme stress and wilting.

Q.8) How Socio-Economic Drought is defined?

Abnormal water shortage affects all aspects of established economy of a region. This in turn adversely affects the social fabric of the society creating unemployment, migration, discontent and various other problems in the society. Thus, meteorological, hydrological and agricultural drought often lead to what is termed as 'Socio-economic drought'.

Q. 9) What are the Environmental Impacts of Drought?

- Moisture Stress
- Drinking Water Shortage
- Damage To Natural Vegetation and Various Ecosystems
- Increased Air And Water Pollution

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Q.10) Why doesn't a drought go away when it rains?

Rainfall in any form will provide some drought relief. A light to moderate showers, thunderstorms, soaking rains etc may provide relief to some extent but even when a drought has been broken it may not be truly over. The benefits of substantial rainfall such as from a tropical storm may last for months, but a return to normal rainfall patterns and amounts is necessary for conditions in streams, reservoirs, and ground water to also return to normal.

Q. 11) What are the Societal Impacts of Drought?

- Malnutrition

- Poor Hygiene
- Ill Health
- Migration
- Increased Stress and Morbidity
- Social Strife

Q.12) Does a shortage of rain mean that a drought will occur?

A period of below-normal rainfall does not necessarily result in drought conditions. Some rain returns to the air as water vapor when water evaporates from water surfaces and from moist soil. Plant roots draw some of the moisture from the soil and return it to the air through a process called transpiration. The total amount of water returned to the air by these processes is called evapotranspiration. Sunlight, humidity, temperature, and wind affect the rate of evapotranspiration. When evapotranspiration rates are large, soils can lose moisture and dry conditions can develop. During cool, cloudy weather, evapotranspiration rates may be small enough to offset periods of below-normal precipitation and a drought may be less severe or may not develop at all.

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Flood