Impact Of Dry Chillai Kalan Felt On Water Resources In Kashmir (J&K) UT India

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Abstract:-
The present study reports the impact of dry Chillai- Kalan (2024) in Kashmir (UT). The prolonged dry spell in Kashmir especially in the peak time of Chillai- Kalan (40days) has last shadow on Kashmir's major water resources including Vishaw and other ground water resources. The snowfall in Chillai-Kalan is pivotal to have adequate water and to refill the water resources both surface water and underground. but this time dry spell in Chillai- Kalan has last shadow on the water bodies. The impact is due to global warming, every day the temperature is showing an increase in Kashmir valley above normal.

Key words: Chillai- Kalan, Dry spell, water resources, Kashmir valley

Introduction:-
Chillai- Kalan is the local name of 40 days period of harsh winter in Kashmir. IT is the part of winter season in Kashmir starts from 21 December to 30 January every year. This year the persistent dry spell in Kashmir especially in the peak winter Chillai-Kalan has last shadow on major surface as well as ground water. In absence of the timely snowfall and rainfall the water level in all water resources has reduced.

The drop in snowfall and rainfall will have an influence on glaciers accumulation in the future. The snowfall in the Chillai- Kalan acts as refill to both surface ad ground water resources.

Therefore the present study was carried out
- To Assess the drop in water level of water bodies
- The impact of dry Chillai- Kalan on glaciers
- The cause of dry spell
- Measure–on- farm water balance and yield effects

Material and Methods:-
In Kashmir there are ten districts the researchers has done present study on district kulgam and its mountain ranges. The researchers frequently visited the water resources Vishaw nallaha (river) that flows through Kulgam district and the origin if which is vishnav pad or Kausar Nag in the Pir Panjal Mountain ranges in Kulgam district. The lack is roughly 3 km (2 mi) long and 0.75 km (0 mi) at the widest point. This lack is source of veshaw River in district Kulgam. The researcher frequent checks the decreased level of water in the water resources.

This year Kashmir valley is grappling with an unusual and severe dry spell amid harsh winter, raising concerns among residents and tourists. Reduced snowfall and rainfall has prompted worries and have resulted in water scarcity of both runway and underground water resources. And for reaching impact on environment and daily life of Kashmir people and district Kulgam.

The absence of significant precipitations has resulted in shortage of water for human and agricultural activities. It also intensifies the challenges of people of valley.

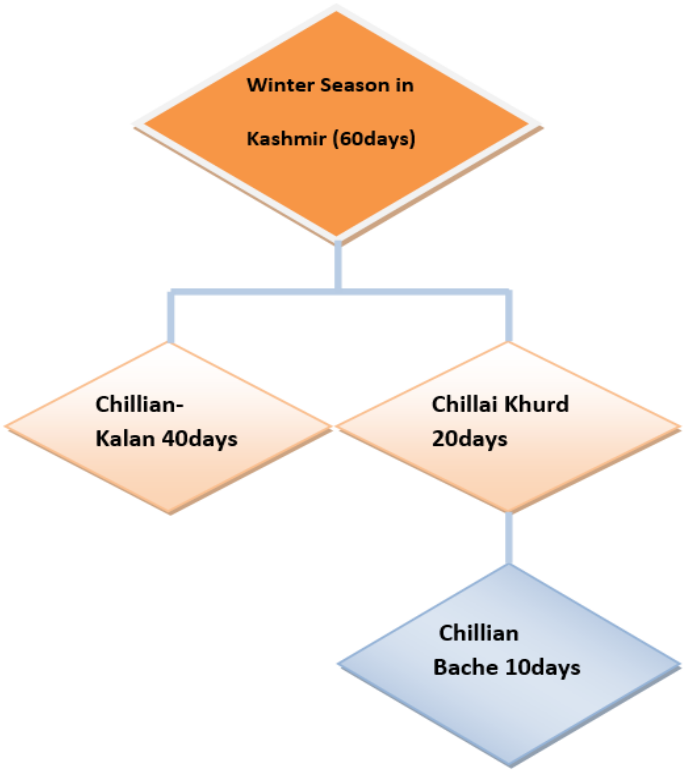
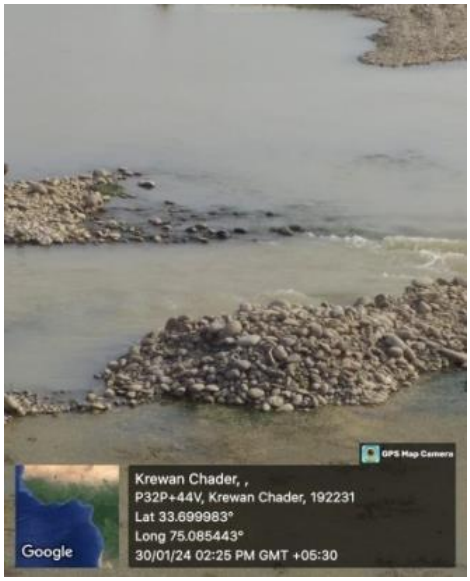


Fig1. Seasons in Kashmir

The water level in the vishaw river of Kulgam has witnessed noticeable charge as observed by the researchers, highlighting the severity of the dry condition of Chillian-Kalan. The underground water resources of few villages lie khrewan Chadder Nopora Qaimoh, KUlgam has almost ddry up as udner ground water table was not refulled by the snow.

The snow in Chillian-Kalan is important for regulating glacier health and strea flows. The dry winter in Chillian-Kalan means higher mass loss of hydrological year. It has also impacton hydropoer generation. The winter's unprecendented warmth has given way to anohter unexpected sight, new buds an early blossoms are unfuring on trees across Kashmir. This is cause of conern for agriulture and fruit inustry in Kashmir valley. The absence of snown on mountain and pants has rasied allarm bells across the people of Kashmir. The cause of decrease of snowfall is due to golobal warming and El- Nano effects as presented by most of the experts and the measure pollution level at global as well as in kashmir region.



A)

B)

C) **D)**

Fig 2. A-D taken from different locations of river vishaw show dip in water level.

Disucssion:-

A prolonged period of dry weather in the peak period of Chillian-Kalan has its impact both on the water runoff as well as the beauty of Kashmari mountaiins. The lack of snow in Chillian-Kalan cause drough like conditions and will effets both flora and fauna of kashmir. Snow is crucial water sources , that irefills the glaciers and tahere by water bodies of kashmir. The pervasive and prologne dry spell in the Kashmir valley is unleashing a cascade of conerns, impact on various sectors including agruculture, horticulture, toruism and water resources, and posting threats to the regions eclolgical balanc. The researchers as a sutddent of bilogy has given few suggestion regarding this

1. Human interference is acknowledged by the researchers.
2. Due to climatic changes
3. To use water resources judiciously
4. The impact of El- Nino on Kashmir
5. Due to global warming

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