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## HINDU KUSH HIMALAYA (HKH)

*This article covers "Daily Current Affairs" and the topic details "Hindu Kush Himalaya (HKH)". The topic "Hindu Kush Himalaya (HKH)" has relevance in the Geography and Environment section of the UPSC CSE exam.*

### **Relevance:**

#### **For Prelims:**

*Facts about Hindu Kush Himalaya (HKH)?*

*What is "Peak Water" ?*

#### **For Mains:**

*GS 3: Environment*

*HI-WISE Report?*

*Findings of the report?*

*Concerns mentioned in the report?*

### **Why in the news?**

The International Centre for Integrated Mountain Development (ICIMOD) released the Water, Ice, Society, and Ecosystems in the Hindu Kush Himalaya (HI-WISE) report.

### **Facts about Hindu Kush Himalaya (HKH)?**

- **Location:** The Hindu Kush is a mountain range in Central Asia, extending primarily across northeastern Afghanistan and northern Pakistan. It forms the western extension of the Himalayas.
- **Geography:** The range spans approximately 800 kilometers (500 miles) in length and reaches heights of over 7,000 meters (23,000 feet). It is characterized by rugged peaks, deep valleys, and steep slopes.
- **Name Origin:** The term "Hindu Kush" is derived from Persian and means "Killer of Hindus" or "Hindu Killer" in reference to the challenges and dangers faced by travelers crossing the treacherous mountain passes.
- **Historical Importance:** The Hindu Kush has served as a historical crossroads and trade route, linking Central Asia with South Asia and the Middle East. It has been a part of ancient trading routes, including the Silk Road.
- **Biodiversity:** The range exhibits diverse ecosystems, including alpine meadows, coniferous forests, and high-altitude deserts. It supports a variety of plant and animal species, including snow leopards, Marco Polo sheep, and numerous bird species.

- **Mountaineering:** The Hindu Kush offers challenging opportunities for mountaineers and has attracted adventurers and climbers from around the world. Notable peaks in the range include Tirich Mir, Noshaq, and Saraghrar.

### What is “Peak Water” ?

- “Peak water” refers to the concept of reaching the maximum sustainable supply of freshwater resources in a particular region or globally. It represents the point at which water availability starts declining due to various factors such as overexploitation, depletion of aquifers, climate change impacts, and population growth.

### HI-WISE Report?

ICIMOD, the International Centre for Integrated Mountain Development, recently published a significant report titled “Water, Ice, Society, and Ecosystems in the Hindu Kush Himalaya” (HI-WISE). This report sheds light on the intricate relationships between water, ice, societies, and ecosystems in the HKH region. The research conducted for the HI-WISE report provides valuable insights into the challenges and opportunities associated with water resources, glaciers, communities, and the environment in the Hindu Kush Himalayas.

### Findings:

- Many areas worldwide have already passed “peak water,” experiencing reduced glacier meltwater.
- The Hindu Kush Himalaya (HKH) region has not reached peak water yet, but it is approaching soon.
- Due to climate change, Himalayan glaciers are melting, resulting in increased water availability in the Indus, Ganges, and Brahmaputra rivers in the short term (until 2050).
- However, water availability is projected to decrease significantly in the long term, with estimates suggesting up to an 80% decline by 2100.
- The Eastern or lesser Himalayas have fewer glaciers compared to the western counterparts, leading to lesser glacier contribution to rivers in the region and lower overall impact.
- Climate change is adversely affecting biodiversity in the HKH, resulting in habitat reduction for species such as the Himalayan ibex (estimated 33 to 64% reduction).

### Concerns:

- Glaciers in the HKH region are losing mass 65% faster, posing risks of more floods, landslides, and diminished water reserves during dry years.
- Decreasing snow cover could dry up springs, impacting agriculture and jeopardizing the livelihoods of 129 million farmers in the Indus, Ganges, and Brahmaputra basins.
- Adaptation becomes harder as communities need to cope with both decreasing snow cover and reduced meltwater.
- Institutions lack preparedness to handle these new dangers and often fail to consider climate change threats.
- Governments have played a limited role in assisting mountain communities in the HKH region in adapting to climate change.

### ICIMOD

ICIMOD (International Centre for Integrated Mountain Development) is a regional intergovernmental organization focused on learning and knowledge-sharing in the Hindu Kush

Himalaya (HKH) region. It serves the eight regional member countries: Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. Established in 1983, ICIMOD is headquartered in Lalitpur, located in the Kathmandu Valley of Nepal.

The main objective of ICIMOD is to promote and foster partnerships among the regional member countries to ensure a sustainable and prosperous future for both the people and the environment of the HKH region. It acts as a platform for collaboration, research, and capacity building to address the various challenges and opportunities faced by the HKH region, including climate change, natural resource management, water resources, biodiversity conservation, and sustainable livelihoods.

**Source:**

<https://www.downtoearth.org.in/news/climate-change/melting-hindu-kush-himalayas-will-decrease-water-in-river-basins-by-2100-warns-icimod-90129>

**Q.1 Which of the following statements about ICIMOD (International Centre for Integrated Mountain Development) is correct?**

- (a) It is a global intergovernmental organization dedicated to water resource management.
- (b) ICIMOD primarily focuses on the Arctic region and its environmental challenges.
- (c) It serves as a platform for collaboration and knowledge-sharing among eight regional member countries.
- (d) ICIMOD was established in 1970 and is headquartered in Geneva, Switzerland.

**Answer: (c)**

**Q.2 Which of the following statements regarding the Hindu Kush Himalayas (HKH) is correct?**

- (a) The HKH region is known as the “Water Tower of Asia” as it is the source of several major rivers in the region.
- (b) The HKH region consists of seven countries, namely India, China, Myanmar, Sri Lanka, Pakistan, Bangladesh, and Nepal.
- (c) The HKH region is characterized by low levels of biodiversity due to harsh climatic conditions.
- (d) The HKH region is not significantly affected by climate change, as the glaciers in the region are stable.

**Answer: (a)**

**Q.3 The Hindu Kush Himalayas (HKH) region plays a crucial role in the socio-economic and ecological dynamics of South Asia. Discuss the significance of the HKH region and the challenges it faces in terms of environmental sustainability and sustainable development. Also, examine the role of regional cooperation in addressing these challenges.**

**Rishabh**