



DAILY CURRENT AFFAIRS 12-08-2025

GS-1

1. Bhagirathi River

GS-2

2. MANAS Helpline (Madak-Padarth Nished Asoochna Kendra)
3. S.H.I.N.E. Initiative

GS-3

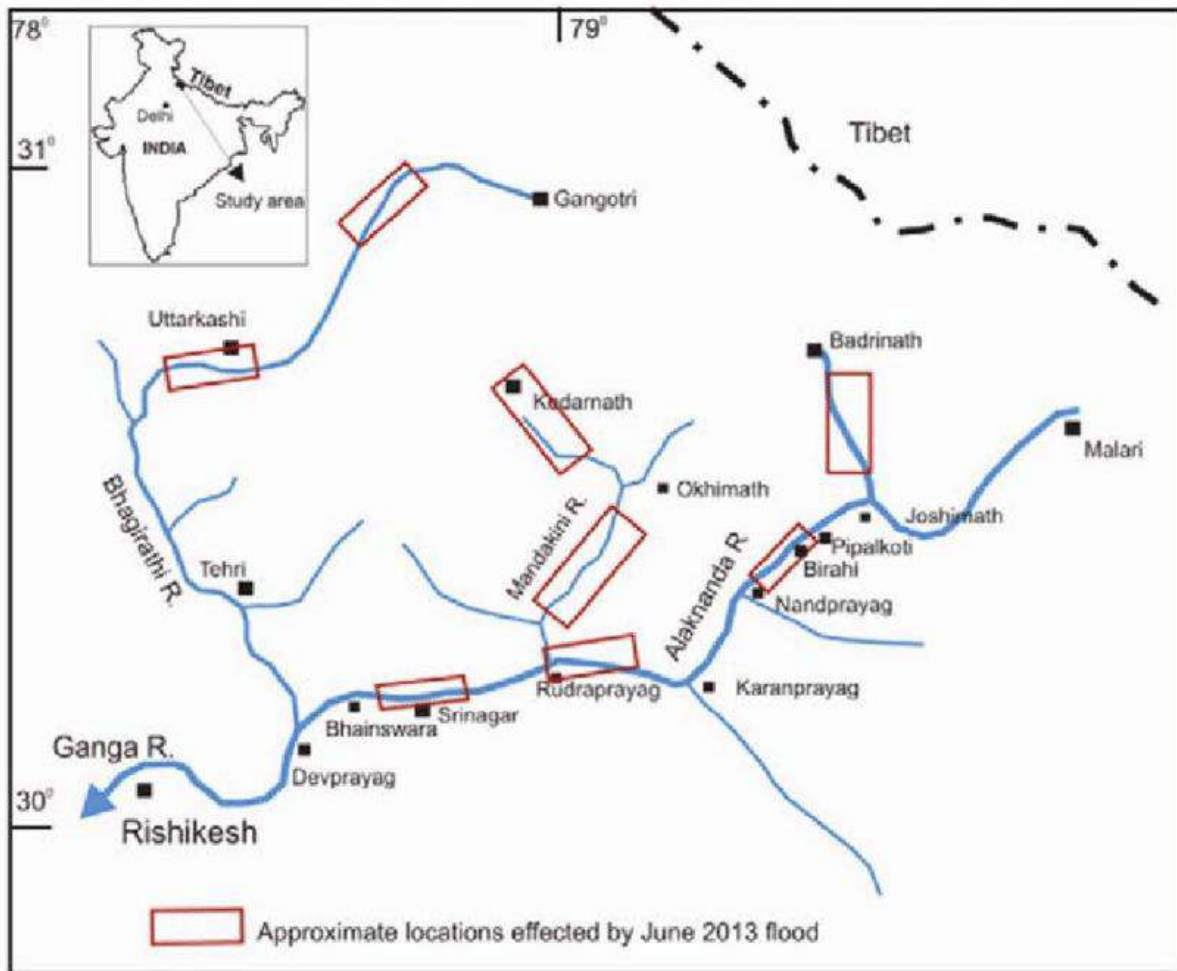
4. Blue Pinkgill Mushroom
5. Tritium

Bhagirathi River

Syllabus: GS-1; Geography- Rivers, Flashfloods; GS-3; disaster management

Context

- A flash flood in Dharali, Uttarakhand altered the river's course, pushing its tributary **Kheer Gad** back to its old channel.
- **ISRO satellite imagery** confirmed significant morphological changes.



Overview

- **Type:** Major Himalayan river and **one of the two headstreams of the Ganga** (the other being Alaknanda).
- **Mythological Significance:** Believed to be brought to earth by King Bhagiratha to cleanse ancestors' sins (linked to the descent of Goddess Ganga).

Origin & Course

- **Source:** Gaumukh glacier (3,892 m elevation) in **Gangotri, Uttarakhand**.
- **Flow:** Traverses through **Gangotri, Harsil, Uttarkashi, Tehri, and Devprayag**.
- **Confluence:** Merges with the **Alaknanda at Devprayag** to form the **Ganga**.

Tributaries

- **Left Bank:** Kedar Ganga, Jadh Ganga, Asi Ganga.
- **Right Bank:** Kakora Gad, Jalandhari Gad, Siyan Gad, Bhilangna River (largest tributary, originates from Khatling Glacier).

Key Features

- **Hydrology:**
 - **Alaknanda** is hydrologically larger, but Bhagirathi is culturally revered as the Ganga's primary source.
 - **High sediment load** makes it prone to course changes.
- **Infrastructure:**
 - **Tehri Dam** (on Bhagirathi-Bhilangna confluence) – India's tallest dam.
- **Ecological Sensitivity:**
 - Lies in a **seismically active zone** with risks of **glacial lake outburst floods (GLOFs)** and landslides.
 - Part of the **Gangotri National Park** (biodiversity hotspot).

Cultural Significance

- Mentioned in **Ramayana** and **Puranas** as the "original Ganga."
- **Pilgrimage Sites:** Gangotri Temple, Gaumukh trek, and Devprayag (sacred confluence).

Environmental Challenges

- **Climate Change:** Glacial retreat at Gaumukh threatens water supply.
- **Human Impact:** Dams and urbanization disrupt natural flow.

Why This Matters

- The recent flash flood highlights the **Himalayan rivers' dynamic nature** due to climate change and tectonic activity.
- **Satellite monitoring** (like ISRO's) is crucial for disaster management in fragile ecosystems.

MANAS Helpline (Madak-Padarth Nished Asoochna Kendra)

Syllabus: GS-2; Health, Government policies and Interventions

Context

- The **Minister of State for Home Affairs** informed the **Rajya Sabha** about the **successful implementation** of MANAS, highlighting its role in strengthening India's anti-drug efforts.

About

- The **MANAS Helpline** (Madak-Padarth Nished Asoochna Kendra) is a significant initiative by the **Government of India**, launched on **18th July 2024**, to combat drug abuse and trafficking in the country.

Key Features of MANAS Helpline:

1. **Anonymous Reporting** – Citizens can **securely and anonymously** report drug-related crimes such as trafficking, illicit cultivation, storage, or manufacturing.
2. **Counselling & Rehabilitation Support** – Integrated with the **Ministry of Social Justice & Empowerment (MoSJE) Helpline (14446)** to provide guidance for addiction treatment and rehabilitation.

3. **Bilingual & Digital Platform** – Available in **Hindi and English**, ensuring wider accessibility.
4. **Multi-Channel Interface** – Users can report via a **web portal, mobile app, or helpline number** (yet to be officially announced).
5. **Public Awareness Initiatives** –
 - a. **Educational Resources**: Posters, videos, and brochures on drug abuse prevention.
 - b. **Engagement Activities**: Quizzes, poster-making, and reel-making contests under the "**Drug-Free Bharat**" campaign on **MyGov**.

Significance & Impact

- **Citizen-Centric Approach**: Encourages public participation in the fight against drugs.
- **Real-Time Intelligence**: Helps law enforcement agencies track and crack down on drug networks.
- **Holistic Support**: Combines **reporting, counselling, and rehabilitation** in one platform.

This initiative aligns with **Narcotics Control Bureau (NCB)** efforts and reinforces India's commitment to a "**Nasha Mukh Bharat**" (**Drug-Free India**).

S.H.I.N.E. Initiative

Syllabus: GS; Government polices and Interventions

Context

- The **S.H.I.N.E. Initiative** (Science, Health, and Innovation for Nextgen Explorers) is a nationwide student outreach program organized by the **Indian Council of Medical Research (ICMR)** and the **Department of Health Research (DHR)**.

Key Highlights of the S.H.I.N.E. Initiative:

- **Objective**: To ignite scientific curiosity, foster innovation, and inspire the next generation of health researchers.
- **Target Audience**: Students in **grades 9–12** from schools across India.
- **Activities**:

- Guided laboratory tours
 - Research exhibitions
 - Poster walks
 - Video presentations
 - Live demonstrations of scientific work
- **Engagement:** A mascot named **Dr. Curio** was introduced to make learning interactive and fun.
- **Participation:** Over **13,000 students** from **300+ schools** across **16 states and UTs** took part.

Significance:

- Encourages students to pursue careers in **biomedical research, public health, and science**.
- Highlights **ICMR's contributions** to improving India's healthcare system.
- Provides hands-on exposure to **cutting-edge medical and scientific research**.

This initiative aligns with India's broader goals of promoting **STEM education** and building a **future-ready scientific workforce**.

Blue Pinkgill Mushroom

Syllabus: GS-3; Environment & Ecology

Context

- A rare bloom was recorded in **Komaram Bheem Asifabad district, Telangana**, highlighting its presence beyond New Zealand.



Key Facts About Blue Pinkgill Mushroom

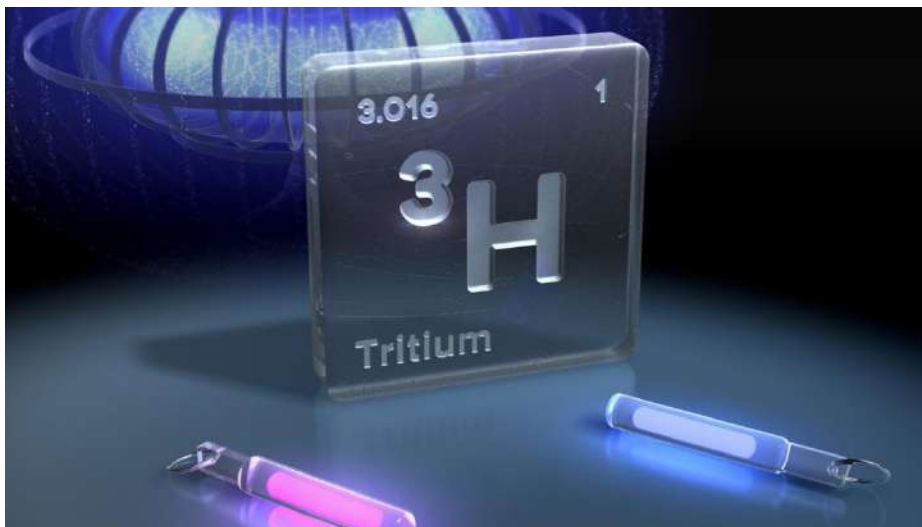
- **Scientific Name:** *Entoloma hochstetteri*
- **Common Names:** Sky-blue mushroom, Blue Pinkgill
- **Appearance:**
 - Striking **vivid blue color** due to rare **azulene pigments**.
 - **Gills** range from pink to purplish (spores give a reddish tint).
 - Caps can be **flat or funnel-shaped**; stems may be central or lateral.
 - **Spore print:** Pink to salmon-colored (helps in identification).
- **Habitat:**
 - Native to **New Zealand** (featured on the NZ \$50 note).
 - Thrives in **broadleaf forests**, growing on the ground among leaf litter.
 - Recently spotted in **Telangana, India** (Kagaznagar forest) during monsoon due to ideal moist conditions.
- **Ecological Role:**
 - Appears in **monsoon season** when soil moisture and forest cover are optimal.

Tritium

Syllabus: GS-3; Science & Technology

Context

- A study by **University of Tokyo** and **Fukushima University** found **minimal ocean impact** from Fukushima's tritium wastewater release.



About

- **Definition:** Radioactive isotope of hydrogen (**H-3**) with **1 proton + 2 neutrons** (unlike regular hydrogen, which has no neutrons).
- **Properties:**
 - Unstable and radioactive (half-life: **12.3 years**).
 - Forms **tritiated water** (HTO) when combined with oxygen.
 - Colorless, odorless gas or liquid, behaving like water in the environment.

Sources

- **Natural:** Cosmic rays interacting with atmospheric gases.
- **Artificial:** Nuclear weapons explosions, reactors, and nuclear power plants (e.g., Fukushima wastewater release).

Uses

- **Self-Powered Lighting:** Combined with phosphors for exit signs, runway lights, and emergency lighting.
- **Medical Tracers:** Diagnosing/researching heart disease, cancer, and AIDS.
- **Nuclear Fusion:** Potential fuel for future fusion reactors (e.g., ITER project).
- **Scientific Research:** Tracking chemical/biological processes.

Safety & Environmental Concerns

- Low concentrations naturally occur, but **high exposure risks** (beta radiation) exist.
- Tritiated water can integrate into ecosystems, though its **weak radiation** makes external exposure less harmful than ingestion.