DAILY CURRENT AFFAIRS 08-11-2025

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Katkari Tribe

Syllabus: GS-1; Issues of landlessness, marginalisation, migration, and tribal rights movements.

Context

- The **Shramjeevi Organisation** will hold a **two-day protest** to highlight the **plight of the Katkari Tribe**, featuring **silent fasts and symbolic lamps**.
- **Demands:**
  - **Land rights** for the landless Katkari families
  - **Payment of unpaid wages**
  - **Dignity and recognition** for the marginalised community

About the Katkari Tribe

- **Region:** Found mainly in **Maharashtra** (Pune, Raigad, Thane) and parts of **Gujarat**.
- **Status:** Listed among the **75 Particularly Vulnerable Tribal Groups (PVTGs)** of India.
- **Origin of Name:**
  - Also called **Kathodis** — traditionally made **Katha (Catechu)** from **Khair wood (Acacia catechu)**.
- **Habitat:** Historically **forest dwellers**; live in **bamboo huts** and depend on **forest produce**.
- **Family System:** Patriarchal, but mostly **nuclear families**, not joint.
- **Language:**
  - Speak **Katkari language** within the community.
  - Use **Marathi** for interaction with outsiders; some also know **Hindi**.

Occupation & Livelihood

- Work as **agricultural labourers**, **firewood sellers**, and **fisherfolk**.
- Also involved in **brick making**, **coal making**, and **collection of jungle produce**.
- Possess rich **ethnobotanical and ecological knowledge** of **uncultivated foods** — fish, crabs, tubers, wild vegetables, fruits, nuts, etc.
- **Landless households: ~87%**, much higher than India's rural average (**48%**).
- **Seasonal migration** is common due to lack of secure livelihood.

EAT-Lancet Commission Report 2025

Syllabus: GS-2: Social Sector – Health

Context:

- The EAT-Lancet Commission released a new report on **healthy, sustainable, and equitable food systems**.
- The report calls for **"justice in food systems"**, linking nutrition, sustainability, and equity.
- The Hindu editorial highlights the need for **fair transitions** in food systems—benefiting both people and the planet.

About the EAT-Lancet Commission

- **Joint initiative:** EAT Foundation (Norway) and The Lancet medical journal.
- **Aim:** To scientifically define a "planetary health diet" that is both healthy for humans and sustainable for the planet.
- The 2025 update builds on its 2019 "Food in the Anthropocene" report.

Key Findings of the 2025 Report

- **Food systems are central** to the triple crisis of climate change, biodiversity loss, and human health inequality.
- Present global food systems are **inequitable and unsustainable**:
  - Over-production of resource-intensive crops (e.g., rice, wheat, livestock feed).
  - Under-nutrition and over-nutrition coexist globally.
  - Agriculture contributes nearly **30% of global GHG emissions**.
- Calls for a **justice-based approach** — ensuring fair access to healthy food and fair livelihoods for producers.

The Concept of "Justice in Food"

- **Environmental justice:** Sustainable resource use and reduced emissions.
- **Social justice:** Equitable access to healthy diets, fair incomes for farmers, gender equality, and inclusion of smallholders.
- **Intergenerational justice:** Ensuring future generations have access to nutritious food without environmental degradation.
- **Economic justice:** Correcting market imbalances, fair trade, and reducing food price volatility.

Relevance for India

- India faces a **triple nutritional burden**: undernutrition, micronutrient deficiency, and obesity.
- **Agricultural practices** are resource-intensive (especially in rice-wheat systems) and environmentally unsustainable.
- **Policy challenge:** Transition towards sustainable diets without harming livelihoods of small and marginal farmers.
- The editorial emphasizes equity-first reforms in agriculture, food distribution, and nutrition schemes.

Policy Implications and Recommendations

Focus Area	Suggested Actions

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Production	Promote **agro-ecological farming**, crop diversification, millets, pulses, horticulture.
Distribution	Reform **Public Distribution System (PDS)** to include nutritious and climate-resilient foods.
Consumption	Encourage **dietary diversity**, reduce processed food and meat consumption, promote awareness.
Equity	Support **smallholders**, ensure **gender-inclusive** food policies, and protect local food cultures.
Governance	Strengthen inter-ministerial coordination (Agriculture, Health, Environment, Food Processing).

Linkages with Indian Policies

- **National Food Security Act (2013)** – ensures access to food but needs nutritional diversification.
- **National Mission on Sustainable Agriculture (NMSA)** – promotes climate-resilient practices.
- **Poshan Abhiyaan (2018)** – focuses on malnutrition reduction.
- **National Nutrition Strategy (NITI Aayog)** – advocates holistic nutrition approaches.
- **National Millet Mission** – aligns with sustainable and healthy diet goals.

Challenges Ahead

- Cultural dietary preferences and affordability barriers.
- Inadequate supply chains for perishable, nutritious foods.
- Policy fragmentation across ministries.
- Resistance from vested interests in agri-business and food processing sectors.
- Need for reliable data on nutrition and environmental impacts.

Way Forward

- Integrate **nutrition, sustainability, and justice** in national food policy.
- Create a **just transition framework** for farmers moving to sustainable crops.
- Strengthen **research and data systems** on diet-environment linkages.
- Promote **citizen engagement and behavioural change** through education.

- Include **"Right to Nutrition"** within food security discourse.

Conclusion

- "Justice in Food" signifies that sustainability must go hand-in-hand with fairness.
- A just food system ensures **nutrition for all, livelihood security for farmers, and protection for the planet**.
- For India, aligning food policy with these principles is essential for achieving SDGs 2 (Zero Hunger), SDG 12 (Responsible Consumption), and SDG 13 (Climate Action).

Silicon Carbide

Syllabus: GS-3; Science & Technology

Context

- The Chief Minister of **Odisha** recently performed the **groundbreaking ceremony** for **India's first end-to-end silicon carbide semiconductor production plant**.
- This marks a major step in strengthening India's **semiconductor manufacturing ecosystem** under the "Make in India" and **Atmanirbhar Bharat** initiatives.

About Silicon Carbide (SiC)

- **Chemical Formula:** SiC
- **Type:** Synthetically produced crystalline compound of **silicon and carbon**.
- **Discovered by:** *Edward G. Acheson* in 1891.
- **Category:** Most widely used **non-oxide ceramic**.

Key Properties

- **Hardness:** Among the hardest ceramic materials (next to diamond, CBN, and boron carbide).
- **Thermal Conductivity:** Excellent; allows efficient heat dissipation.
- **Thermal Expansion:** Very low → dimensionally stable under heat.
- **Electrical Conductivity:** Intermediate — acts as a **semiconductor**.
- **Resistance:** High resistance to **oxidation, wear, and corrosion**.

Major Applications

1. **Abrasives:** Grinding wheels, sandpapers (due to extreme hardness).

2. **Refractory Linings:** For furnaces, kilns, and wear-resistant engine parts.
3. **Semiconductors:** Substrates for **LEDs**, **power electronics**, and **EV components**.
4. **Rocket Engines & Pumps:** Used in **wear-resistant parts** and **high-temperature applications**.

Significance

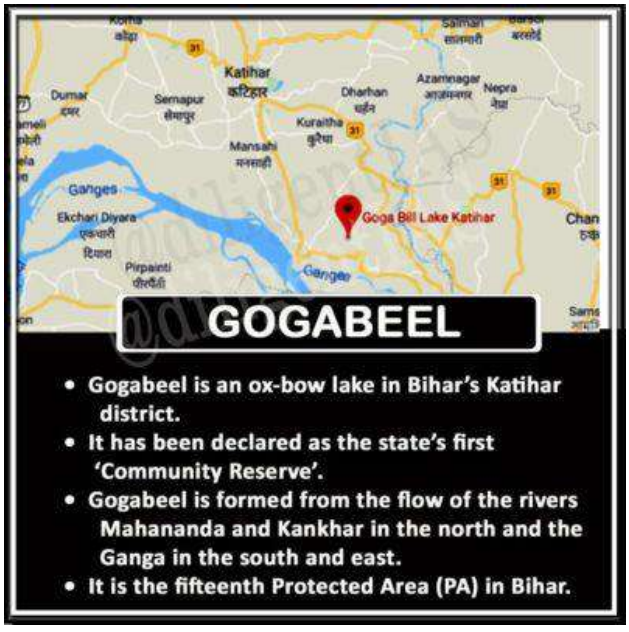
- Enhances **energy efficiency** and **power performance** in electronic devices.
- Crucial for **electric vehicles (EVs)**, **renewable energy**, and **defense applications**.
- Aligns with India's goal of developing a **self-reliant semiconductor ecosystem**.

Gogabeel Lake

Syllabus: GS-3; Ramsar Sites

Context

- Gogabeel Lake in **Katihar district, Bihar**, has been designated as a **Ramsar Site**, gaining international importance under the **Ramsar Convention (1971)**.



About Gogabeel Lake

- **Location:** Trans-Gangetic plains, Katihar district, **Bihar**.
- **Type:** *Ox-bow lake* formed due to meandering of rivers.

- **Boundaries:**
  - North-East – **River Mahananda**
  - South – **River Ganga**
- **Status:** Bihar's **first Community Reserve** (declared under the Wildlife Protection Act, 1972).
- **Cultural significance:** Local festivals like *Sirva*, *Adra*, and *Chhath* are celebrated around the lake.

Flora and Fauna

- **Flora:** Tropical dry deciduous vegetation and aquatic plants.
- **Fauna:**
  - Provides **wintering habitat for migratory birds**.
  - Supports species of **global conservation importance**.
  - Home to **Smooth-coated Otter** (*Lutrogale perspicillata*) and **Helicopter Catfish** (*Wallago attu*).
  - *Wallago attu* (vulnerable fish species) breeds here.

About the Ramsar Convention (1971)

- An **international treaty** for the **conservation and wise use of wetlands**.
- Signed at **Ramsar, Iran**, in **1971**; came into force in **1975**.
- Promotes **sustainable use** of wetlands through **local, national, and international cooperation**.
- India is a **signatory** and currently has **~80+ Ramsar sites** (as of 2025).

Khangchendzonga National Park

Syllabus: GS-3: Protected areas – National Parks.

Context:

- The **International Union for Conservation of Nature (IUCN)**, in its latest global review of natural World Heritage Sites, has rated **Khangchendzonga National Park (KNP)** as **"Good"** in conservation outlook.
- The rating indicates that the park is **well-managed** with stable ecosystems and effective protection measures in place.

About Khangchendzonga National Park (KNP)

- **Location:** Northern Sikkim, India.

- **Total Area:** ~1,784 sq. km.
- **Establishment:** 1977.
- **UNESCO Status:**
  - Declared a World Heritage Site in **2016**.
  - India's **first "Mixed" Heritage Site**, recognized for both **natural beauty and cultural significance**.
- **Geographical Significance:**
  - Lies entirely along the **Sikkim–Nepal border**.
  - Encompasses **Mount Khangchendzonga (8,586 m)** — the **3rd highest peak** in the world.
  - Includes 18 glaciers, notably the **Zemu Glacier** — one of the largest in Asia.
  - Represents an altitudinal range from **1,220 m to 8,586 m**, among the widest for any protected area globally.

Ecological and Biodiversity Significance

- **Biodiversity Hotspot:** Part of the **Eastern Himalaya Global Biodiversity Hotspot**.
- **Ecosystem Diversity:**
  - Plains, valleys, lakes, glaciers, snow-capped mountains, and ancient forests.
  - Vegetation transitions from **subtropical to alpine** zones.
- **Flora:**
  - Includes **oak, fir, birch, maple, and rhododendron** species.
- **Fauna (Flagship Species):**
  - **Snow leopard**, **Red panda**, **Tibetan wolf**, **Blue sheep**, **Himalayan tahr**, **Mainland serow**.

- **Avifauna:** Nearly **half of India's bird diversity** is found here.

Cultural and Anthropological Significance

- The park embodies the **sacred landscape of Mount Khangchendzonga**, revered in **Sikkimese Buddhist** traditions.
- Home to **Lepcha tribal settlements**, who regard the mountain as a deity and maintain traditional conservation practices.
- The park reflects a **unique harmony between nature and culture** — key reason for its "Mixed Heritage" status.

Conservation and Management

- Managed as part of the **Khangchendzonga Biosphere Reserve (KBR)** under the **Man and Biosphere (MAB)** Programme of UNESCO.
- Effective protection measures have reduced threats like illegal grazing and poaching.
- Challenges include:
  - Climate change and glacial retreat.
  - Increasing tourism pressure.
  - Human–wildlife conflicts in buffer areas.

IUCN Conservation Outlook 2025

- **Rating:** "Good" – denotes stable conservation conditions and effective management.
- **Previous Assessment:** "Good with some concerns."
- **Improvement Factors:**
  - Strengthened eco-tourism regulations.
  - Community-based conservation initiatives.
  - Enhanced monitoring of flagship species and glaciers.

Significance for India

- Highlights India's success in **balancing conservation and community participation**.
- Reinforces the country's commitment to **UNESCO World Heritage Site management standards**.
- Contributes to India's global image in **biodiversity protection and sustainable mountain development**.

Related Government Initiatives

- **National Mission on Himalayan Studies (NMHS)** – research on biodiversity and climate impacts.
- **Integrated Development of Wildlife Habitats (IDWH)** – support for landscape-level conservation.
- **Eco-Sensitive Zone (ESZ) Notifications** – regulation of activities around protected areas.
- **Sikkim's Organic Mission** – complements conservation efforts by reducing agrochemical pressure on ecosystems.