

Environment – Miscellaneous Topics

These notes are your ultimate revision weapon to revise Environment – Miscellaneous Topics. We've distilled years of previous exam questions (PYQs) into one powerful, concise resource. Everything you need to know, nothing you don't.

- **PYQs, Decoded:** All key concepts from past exams, organized and simplified.
- **Revise in Record Time:** Short, precise, and designed for last-minute review.
- **Focus on What Matters:** Master high-probability topics and boost your confidence.

Indian Research Stations in Antarctica

- **Dakshin Gangotri**
 - It was India's **first** research station in Antarctica.
 - It serves as a supply base and a transit stop.
- **Maitri**
 - It is India's **second** research station.
 - It was established in 1988-89.
 - It is one of India's two currently active stations.
- **Bharati**
 - It is India's **third** research station.
 - It was commissioned in 2012.
 - It is one of India's two currently active stations, along with Maitri.

International Environmental Agreements & Initiatives

- **Agenda 21**
 - It is a **non-binding action plan** of the United Nations for sustainable development.

- Its focus is on **conserving the global environment in the 21st century**.
- It was adopted at the **Earth Summit in Rio de Janeiro, Brazil, in 1992**.
- **Momentum for Change: Climate Neutral Now**
 - It is an initiative launched by the **UNFCCC (United Nations Framework Convention on Climate Change) Secretariat**.
 - The goal is to achieve **climate neutrality by 2050**.

Environmental Issues and Causes

- **Ozone Layer Depletion**
 - The **Ozone Hole** is primarily caused by **Chlorofluorocarbons (CFCs)**.
 - Depletion of the ozone layer increases exposure to **Ultraviolet (UV) light**, which is a cause of **Skin Cancer**.
- **Global Warming**
 - A primary cause is the increase in **Carbon Dioxide (CO₂)** levels.
- **Noise Pollution**
 - It is measured in **Decibels**.
- **Tsunamis**
 - They are primarily the result of **marine earthquakes**.
 - Other causes can include underwater landslides, volcanic eruptions, or meteorite impacts.

Indian Environmental Institutions & Locations

- **Research and Management Institutes**
 - **Forest Research Institute (FRI)** is located in **Dehradun**.
 - **Wild Life Institute of India (WLI)** is located in **Dehradun**.
 - **Indian Grassland and Fodder Research Institute** is located in **Jhansi**.
 - **Central Arid Zone Research Institute (CAZRI)** is located in **Jodhpur**.

- **Indian Agricultural Research Institute (IARI)** is located in **New Delhi**.
- **Indian Institute of Forest Management (IIFM)** is located in **Bhopal** (not Kolkata).
- **Health and Nutrition Institutes**
 - **National Institute of Nutrition** is located in **Hyderabad**.
 - **National Institute of Ayurveda** is located in **Jaipur**.
 - **National Institute of Naturopathy** is located in **Pune**.
- **Other Centers**
 - **Centre for Ecological Science (CES)** is located in **Bengaluru**.
 - **G.B. Pant Institute of Himalayan Environment and Development** is located in **Almora**.

Environmental Movements and Awards in India

- **Famous Environmental Movements**
 - **Chipko Movement** was led by **Sunderlal Bahuguna**.
 - **Save Narmada Movement (Narmada Bachao Andolan)** was led by **Medha Patkar**.
 - **Appiko Movement** was led by **Pandurang Hegde**.
 - **Silent Valley Movement** was associated with **Dr. Salim Ali** (not Baba Amte).
- **Awards**
 - **Indira Gandhi Paryavaran Puraskar** is awarded for significant contribution to the field of environment.

Miscellaneous Environmental Facts

- **Koppen Climate Classification**
 - It is associated with the statement: "**Vegetation is the true index of climate.**"
- **Ecomark**
 - It is a **Government of India initiative** started in 1991.
 - The **ECOMARK symbol** identifies products that are **environmentally safe**.

- **International Collaboration**
 - The **Kailash Sacred Landscape Conservation and Development Initiative (KSLCDI)** is a collaboration among India, China, and Nepal.
- **Legal & Administrative**
 - **NGT** stands for **National Green Tribunal**.
 - It was established in **2010** under the National Green Tribunal Act for the effective disposal of cases related to environmental protection.

Important International Days & Events

UN-Observed Days

- **World Habitat Day:** Observed on the **first Monday of October** every year. It was officially designated by the UN and first celebrated in 1986.
- **World Toilet Day:** Observed on **November 19**. It was officially designated by the UN in 2013 to highlight the importance of sanitation.
- **World Environment Day:** Celebrated on **June 5**.
- **World Ozone Day:** Celebrated on **September 16**.
- **World Water Day:** Celebrated on **March 22**.
- **World Population Day:** Celebrated on **July 11**.

Other Significant Days

- **World Anti-Tobacco Day / World No Tobacco Day:** Celebrated annually on **May 31** to advocate against tobacco use.
- **World Earth Day:** Celebrated on **April 22**.
- **World Forestry Day:** Celebrated on **March 21**.
- **World Cities Day:** Celebrated on **October 31**.

Major International Conferences

- **COP21 (UN Climate Change Conference, 2015):** Held in **Paris, France**. It led to the Paris Agreement.

Indian Institutions & Initiatives

Environmental & Agricultural Institutes

- **National Centre for Marine Biodiversity (NCMB):** India's first NCMB is located in **Jamnagar, Gujarat**. Its purpose is to conserve coastal and marine biodiversity.
- **Central Arid Zone Research Institute (CAZRI):** Located in **Jodhpur, Rajasthan**. It was established in 1959 under the Indian Council of Agricultural Research (ICAR).
- **Indian Institute of Ecology and Environment:** Located in **New Delhi**. It was established on June 5 (World Environment Day), 1980.

Government Initiatives & Acts



- **Swachh Bharat Mission:** Launched officially by Prime Minister Narendra Modi on **October 2 (Gandhi Jayanti), 2014**.
- **AGMARK Act:** Came into force in India in **1937**. It is a certification mark for assuring the quality of agricultural produce.
- **Domestic Content Requirement (DCR):** A policy linked to the **Jawaharlal Nehru National Solar Mission** to promote domestic manufacturing in **solar power production**.
- **Rally for Valley:** An initiative focused on the **resettlement** of people displaced from the Narmada Valley.

Awards, Species, and Natural Resources

Awards

- **Borlaug Award:** Given for outstanding contributions in the field of **Agriculture**. It is named after Norman Borlaug, the "father of the Green Revolution".

National Symbols

- **National Aquatic Animal of India:** The **Gangetic Dolphin**. It was declared on May 18, 2010, and symbolizes the purity of the Ganges River.

Natural Resources & Materials

- **Natural Gas:** Its main component is **Methane**.
- **Helium:** An inert gas used to fill **weather balloons** for meteorological science dispatches.

Geology & Paleontology in India

Fossil Parks

- **National Dinosaur Fossil Park:** Proposed to be set up in the **Dhar district of Madhya Pradesh**.
- **Significance of Dhar District:** Over 100 dinosaur eggs, estimated to be 65-70 million years old, were discovered here in 2006.

United Nations Agencies

UN-Habitat

- **Mandate:** Promoted by the UN General Assembly to promote **socially and environmentally sustainable towns and cities** and provide **adequate shelter for all**.
- **Partners:** Works with a wide range of partners, including **governments, local urban authorities, and private and non-governmental organizations** (not just governments).
- **Objective:** Contributes to the UN system's goal of reducing poverty and promoting access to **safe drinking water and basic sanitation**.

Environment & Ecology

Invasive Species

- **Prosopis juliflora** is a non-native (alien) plant species.
- It is known for reducing biodiversity in the areas where it grows by destroying native plants and animals.

Conservation & Improvement

- **Afforestation** (planting trees) improves human life by:
 - Creating green spaces.
 - Reducing air pollution.
 - Mitigating global warming.
 - Providing oxygen.
 - Slowing down soil erosion.
- **National Parks and their States:**
 - **Kaziranga National Park** is located in **Assam**.
 - **Gir National Park** is located in **Gujarat**.
 - **Kanha National Park** is located in **Madhya Pradesh**.
 - **Corbett National Park** is located in **Uttarakhand** (formerly Uttaranchal).



Pollution Control

- The **Sita Ashok** tree is particularly useful for preventing dust pollution because its glossy leaves are less likely to accumulate dust.
- The **Ringelmann scale** is a measurement tool used to determine the density or opacity of **smoke**.

Agriculture & Animal Husbandry

Animal Breeds

- **Bhadawari** is a breed of **Buffalo**.
- **Sindhi** is a breed of **Cow**.
- **Jamunapari** is a breed of **Goat**.
- **Tharparkar** is a breed of **Cattle** (Cow), not Sheep.

Science & Technology

Remote Sensing

- **LANDSAT** is a satellite program for Earth observation.
- Due to a satellite's orbit and revolution around the Earth, data for an adjacent area to the west of a recently imaged area will be available after a fixed number of days at the same local time.

Natural Resources

Marine Resources

- **Seaweeds** are a major and important natural source of **Iodine**. Other sources include seafood and dairy products.

International Agreements & Organizations

Agenda 21

- A non-binding, voluntary action plan for sustainable development created by the United Nations.
- It is divided into **4** distinct parts or agreements.

Organization for the Prohibition of Chemical Weapons (OPCW)

- Its primary goal is to eliminate chemical weapons and prevent their re-emergence.
- It monitors the global chemical industry to prevent new weapons from being developed.
- It provides assistance and protection to member states against chemical weapons threats.
- It works to promote the peaceful use of chemistry.
- Its membership covers **98%** of the world's population, landmass, and chemical industry.
- It is **not** an organization of the European Union.

R2 Code of Practices

- A set of guidelines that serves as a tool for promoting **environmentally responsible practices in the electronics recycling industry**.
- Companies can be certified for following these practices.

Ramsar Convention

- The 'R2 Code of Practices' is **not** related to the ecological management of wetlands under the Ramsar Convention.

International Decade for Natural Disaster Reduction (IDNDR)

- The United Nations declared the decade of **1991-2000** as the IDNDR.
- Its aim was to reduce loss of life, destruction, and economic disruption caused by natural disasters.

Indian Government Initiatives & Bodies



Green India Mission (GIM)

- A national mission under India's National Action Plan on Climate Change.
- Its main aim is to protect, restore, and enhance India's forest cover.
- It responds to climate change through a combination of adaptation and mitigation measures.
- It is **not** related to green accounting or launching a second green revolution for food security.

National Green Tribunal (NGT) vs. Central Pollution Control Board (CPCB)

- **NGT:** Established in **2010** under the National Green Tribunal Act. It is a specialized judicial body that provides environmental justice and helps reduce the litigation burden in higher courts.

- **CPCB:** Established in **1974** under the Water (Prevention and Control of Pollution) Act. It is a statutory organization that promotes cleanliness of streams and wells and aims to improve air quality.
- **Difference:** Both were established by Acts of Parliament, not by executive order. The key difference is their function: NGT is a tribunal for justice, while CPCB is a regulatory body for pollution control.

Disaster Management in India

- The **Disaster Management Act** was passed in **2005** and came into force in January **2006**.
- **National Disaster Management Authority (NDMA):** Formed on **September 27, 2006**. It is headed by the Prime Minister and is responsible for laying down policies and guidelines for disaster management.
- **State Disaster Management Authority (SDMA):** Established by the Governor of a state under **Section 14(1)** of the Disaster Management Act, 2005. It is headed by the Chief Minister.
- **District Disaster Management Authority (DDMA):** Headed by the District Magistrate/Collector.
- **National Institute of Disaster Management (NIDM):** Located in **New Delhi**. It was created in 1995 and given statutory status by the Disaster Management Act, 2005.
- **SRIJAN (Disaster Management Knowledge-cum-Demonstration Center):** Its functions include creating knowledge centers, creating awareness, and providing local need-based information on disasters.

Rajiv Gandhi Environment Award

- Given to industrial units for outstanding contribution to the **development and use of clean technology** that helps reduce or prevent pollution.

Awards & Recognition

Tyler Prize

- A prestigious international award given for achievements in the field of **environmental science, health, and energy**.

Global 500 Award

- Instituted by the **United Nations Environment Programme (UNEP)** in **1987**.
- Given for outstanding achievements in the **protection of the environment**.

General Environmental Facts

Natural Disasters

- Developing countries typically suffer the **maximum damage** from natural disasters.
- The **Bhopal gas tragedy** is classified as a man-made disaster.
- **Mangroves** help reduce the impact of cyclones.
- **Reconstruction** is a key post-disaster measure.
- India is **not** a disaster-free country; it is vulnerable to a variety of natural disasters, with floods being the most common.

Biodiversity

- A **Mega-diverse country** is one that harbors the majority of the Earth's species.
- Examples include the USA, Mexico, Brazil, India, China, **Australia**, and others.

National Cleanliness Day

- **Sierra Leone** celebrates National Cleanliness Day on the last Saturday of every month.

Paleontology

- **Montana, USA**, is known as the "graveyard of dinosaurs."

Environmental Schemes, Regulations, and Movements

Eco-Labeling and Certification

- **Eco Mark Scheme:**
 - Launched in India in 1991.
 - Aims to encourage consumers to buy products with less harmful environmental impact.
 - **Excludes** drugs and antibiotics from its list of notified consumer products.
- **Blue Flag Certification:**
 - A prestigious international certification for beaches.
 - **Eight Indian beaches** were recommended for this certification in 2020.
 - These beaches are: Shivrampur (Gujarat), Ghoghla (Diu), Kasarkod & Padubidri (Karnataka), Kappad (Kerala), Rushikonda (Andhra Pradesh), Radhanagar (Andaman & Nicobar), and Golden beach (Odisha).



Food Safety and Labelling

- **Food Safety and Standards (Packaging and Labelling) Regulations, 2011:**
 - Mandates that the main label of pre-packaged items in India must include:
 - List of ingredients (including additives).
 - Nutrition information.
 - Vegetarian/Non-vegetarian designation.

Environmental Movements

- **Mitti Bachao (Save the Soil) Movement:**
 - Started in **1977** in the **Hoshangabad district of Madhya Pradesh**.
 - Initiated to protest against the construction of the Tawa Hydropower Project.

Protected Areas and Biodiversity

National Parks and Sanctuaries

- **Marine National Park:**
 - Located in the **Gulf of Kutch, Jamnagar district, Gujarat.**
 - It is India's first marine national park and consists of 42 islands.
- **Bhitarkanika:**
 - A region in the **Kendrapara district of Odisha.**
 - Known for its lush green mangrove vegetation.
 - It has been included in the list of World Heritage Sites.
- **Wildlife Sanctuaries and their States:**
 - **Namdapha:** Arunachal Pradesh
 - **Bandipur:** Karnataka
 - **Periyar:** Kerala
 - **Lamjao:** Manipur

Species Conservation



- **Asian Rhinos:**
 - The five rhino range nations that signed the "New Delhi Declaration on Asian Rhinos 2019" are: **India, Nepal, Bhutan, Malaysia, and Indonesia.**
- **Common Myna:**
 - A bird known to follow cattle to seize insects disturbed by their movement through grasses.

Important Personalities and Organizations

- **Dr. M.S. Swaminathan:**
 - Recognized by the United Nations Environment Programme (UNEP) as the '**Father of Economic Ecology**'.
- **Dr. Salim Ali:**
 - A renowned Indian ornithologist and naturalist, known as the '**Birdman of India**'.
- **Bombay Natural History Society (BNHS):**

- A pan-India organization dedicated to nature conservation since **1883**.
- It is **not** an autonomous body under the Ministry of Environment and Forests.
- Its activities include research, education, public awareness, and organizing nature trails and camps.

Ecology and Environmental Science

Ecological Concepts

- **Monoclimax Theory:**
 - Propounded by **F.E. Clements**.
 - Proposes that in a given region, there is one climax community towards which all other ecosystems are evolving, determined primarily by climate.
- **Net Primary Productivity:**
 - **Temperate grasslands** have the lowest mean net primary productivity among the given options (approx. 500 g/cm²/year).

Plants and Weeds

- **Himalayan Nettle (*Girardinia diversifolia*):**
 - Gaining recognition as a sustainable source of **textile fibre**.
- **Loquat:**
 - Classified as an **evergreen fruit plant**, commonly found in Japan.
- **Water Hyacinth (*Eichhornia crassipes*):**
 - Considered the **world's most problematic aquatic weed** due to its rapid growth and severe environmental impact.

Geography and Atmosphere

Indian Geography & Phenomena

- **Glaciation in India:**

- Glaciation of peninsular India occurred during the **Pleistocene Ice Age**.
- **Winterline:**
 - A natural phenomenon observed in **Mussoorie** (and Switzerland) from October to January during sunset.
- **Forest Cover:**
 - **Madhya Pradesh** has the maximum area under teak forest and the largest forest cover in India.

Atmosphere and Monitoring

- **SODAR (Sonic Detection and Ranging):**
 - A meteorological instrument used to measure wind speed at various heights.
 - In India, it is installed at **Kaiga, Kalpakkam, Tarapur, and Trombay**.
- **World Ozone Day:**
 - Celebrated annually on **September 16**.
 - Commemorates the signing of the Montreal Protocol on substances that deplete the ozone layer.

Miscellaneous

- **World's Largest Charkha:**
 - Inaugurated in **Noida**.
 - Constructed from **used plastic waste**.
 - Inaugurated on the eve of Mahatma Gandhi's 150th birth anniversary.

Know More About Environment – Miscellaneous Topics:

- [Environment – Miscellaneous Topics – Old Year Questions](#)
- [Environment – Miscellaneous Topics One Liner Questions & Answers](#)