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RAPID REVISION SERIES (RRS)

**500 HIGH PROBABLE
TOPICS FOR UPSC
PRELIMS 2020**

TOPIC 196-215



YouTube Initiative



IASbaba's

Session 14

**Rapid Revision Series
of
500 HIGH PROBABLE TOPICS
for
PRELIMS 2020**



TOPICS TO REVISE

196. Colombo Declaration on Sustainable Nitrogen Management
197. International Nitrogen Initiative (INI)
198. Nitrogen Cycle and 5 main processes
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213. Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA)
214. Wild for Life campaign
215. India State of the Forest Report 2019



Topic 196: Colombo Declaration on Sustainable Nitrogen Management

Key points:

1. 2019 UNEP's Colombo Declaration on Sustainable Nitrogen Management
2. Aim : : to halve nitrogen waste by 2030
3. Sustainable Nitrogen Management Resolution was adopted during the 2019 UNEA held at UNEP headquarters in Nairobi, Kenya
4. Technical support from International Nitrogen Management System (INMS) and the International Nitrogen Initiative



Topic 197: International Nitrogen Initiative (INI)

Key points:

1. It is an international program
2. It was set up in 2003, under SCOPE and IGBP
3. Key aims of the INI:
 - 1) optimize nitrogen's beneficial role in sustainable food production, and
 - 2) minimize nitrogen's negative effects on human health and the environment



Topic 198: Nitrogen Cycle and 5 main processes

Key points:

1. Nitrogen fixation → Nitrogen → Ammonia or Ammonium Ions
2. Nitrification → Ammonia or Ammonium Ions → Nitrite → Nitrate
3. Assimilation → nitrogen fixed by plants is converted into organic molecules such as proteins, DNA, RNA etc
4. Ammonification → Dead Matter + Animal Waste (Urea, Uric Acid) → Ammonia or Ammonium Ions
5. Denitrification → Nitrate → Nitrogen

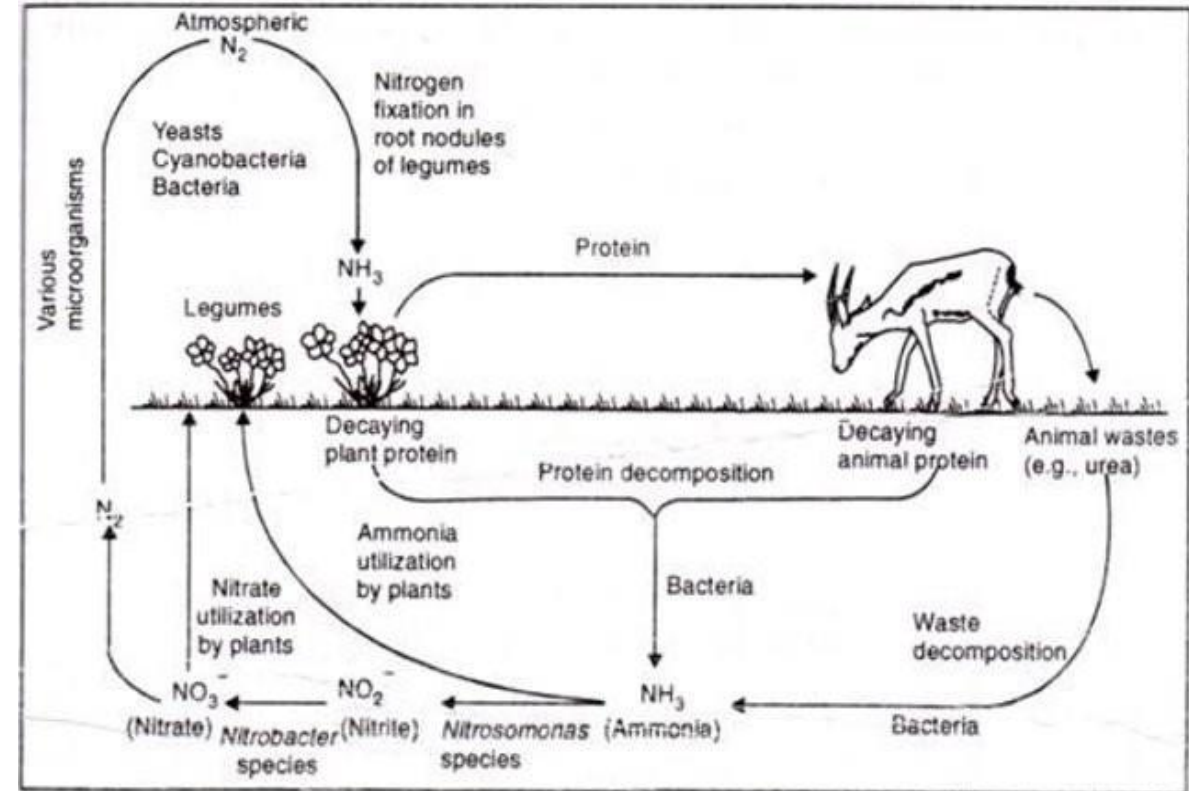


Fig. 5.8. The Nitrogen cycle (after I.E. Alcamo, Fundamentals of Microbiology, 1994). The amount of nitrogen in the atmosphere is maintained by a balance between the processes that withdraw nitrogen from it (nitrogen fixation) and those which add nitrogen to it (denitrification).



Topic 199: UNFCCC - COP 25

Key points:

1. Key outcomes/decisions:

- 1) India calls for Speedier Expansion of International Solar Alliance
- 2) “SOLAR AND THE SIDS – Making the Sun Shine Brighter”
- 3) Complete the rule-book to the 2015 Paris Agreement
- 4) 1997 Kyoto Protocol comes to an end in 2020

2. Other key decisions:

- 1) Pre-2020 implementation and ambition gaps
- 2) Article 6 under the Paris Agreement – Carbon markets
- 3) Article 4 of the Paris Agreement – INDCs
- 4) Enhanced Transparency Framework (Monitoring, Reporting and Verification)
- 5) Warsaw International Mechanism (WIM) for Loss and Damage associated with Climate Change Impacts
- 6) Adaptation related matters (where in India has been stressing on parity between mitigation and adaptation) and
- 7) Technology development and transfer



Topic 200: India and UNFCCC

India's Role

1. On the question of Carbon markets – CDM credits earned under Kyoto Protocol should be transferred to Paris Agreement
2. Principle of Equity and Common but differentiated responsibilities and respective capabilities (CBDR & RC)
3. India Pavilion at COP-25 - celebrated “150 Years the Mahatma”

India's INDCs:

- to improve the emissions intensity of its GDP by 33 to 35 per cent by 2030 below 2005 levels
- to increase the share of non-fossil fuels-based electricity to 40 per cent by 2030
- to enhance its forest cover which will absorb 2.5 to 3 billion tonnes of carbon dioxide by 2030



Topic 201: Article 6 under the Paris Agreement

Key points:

1. To finalize the rules on how countries can reduce their emissions using international carbon markets.
2. Article 6 of the Paris Agreement deals with Carbon Pricing
- 3. How do international carbon markets work?**
 - 1) Countries which cant meet emissions-reduction targets under their NDCs can purchase emissions reductions from other nations
 - 2) Win-Win situation: Both countries meet their climate commitments
 - 3) Overachiever is financially rewarded



Topic 202: Key protocols dealing with UNFCCC

1997 Kyoto Protocol:

- Protocol is based on the principle of CBDR
- Puts obligation on developed countries to reduce current emissions
- Protocol's first commitment period started in 2008 and ended in 2012
- The first major carbon offsetting scheme, the U.N.s Clean Development Mechanism (CDM), was set up under the 1997 Kyoto Protocol

Clean Development Mechanism (CDM)

- Defined in Article 12 of the Kyoto Protocol
- Carbon offsetting - allows a country to help reach its own emissions reduction targets by funding emission reductions in another country
- Earn saleable certified emission reduction (CER) credits

Doha Amendment to the Kyoto Protocol

- Second commitment period was agreed in 2012
- 137 states accepted (while entry into force requires the acceptances of 144 states)



Topic 203: Deoxygenation of the oceans

Key Points:

1. COP25 is called Blue COP
2. Levels of oxygen in oceans fell by around 2 per cent from 1960 to 2010
3. Impacts:
 - Affects the planetary cycling of elements such as nitrogen and phosphorous
 - Oceans become more acidic (osteoporosis of the sea)
 - Fishes dying in masses
 - Oceans have absorbed 93 per cent of the heat

Blue COP is a way to convey the close links between the health of the climate and the health of the ocean.

IPCC released Special Report on the Ocean and the Cryosphere in a Changing Climate



Topic 204: UN Decade on Ecosystem Restoration [2021-2030]

Key points:

1. UNGA declared 2021 – 2030 as decade of Ecosystem Restoration
2. During Bonn Challenge (2018), El Salvador announced plans to propose 2021–2030 as UNDER
3. United Nations Decade on Biodiversity 2011-2020 comes to an end
4. Aim of UNDER - United Nations Decade on Biodiversity 2011-2020 comes to an end.
5. Ecosystem restoration will increase Life Below Water (SDG 14) and Life on Land (SDG 15)



Topic 205: Global Partnership on Forest and Landscape Restoration (GPFLR)

Key points:

1. GPFLR goal - to restore the world's lost and degraded forests
2. GPFLR responds directly to the Bonn Challenge
3. Initiated in 2003 by a small consortium (spearheaded by IUCN and WWF)
4. Functions

Topic 206: The Restoration Initiative (TRI)

Key points:

1. Collaboration between UNEP, IUCN and FAO
2. Goal -
overcome existing barriers to restoration
 - restore degraded landscapes
 - support Bonn Challenge
3. Restoration Initiative unites 10 Asian and African countries



Topic 207: Bioversity International

Key points:

1. Global R&D organisation
2. International status of Bioversity International is conferred under an **Establishment Agreement**
3. Signed by India also

Topic 208: Landscapes for People, Food and Nature Initiative

Key points:

1. International collaborative effort
2. Action to support practice of integrated agricultural landscape approaches
3. Initiative is led by a coalition of leading agriculture and environment organizations (includes)
 - Bioversity International;
 - Conservation International;
 - FAO
 - International Fund for Agricultural Development



Topic 209: International Ecosystem Management Partnership

Key points:

1. First UN Environment Collaborating Centre in the South and for the South
2. Joint venture between UN Environment and the Chinese Academy of Sciences
3. Supported by the Government of China

Topic 210: Global Environment Monitoring System for Air (GEMS)

Key points:

1. It is initiative by UNEP
2. Arose from recommendations of UN Conference on the Human Environment (held in Stockholm in 1972)
3. GEMS Programme Activity Centre (PAC) to monitor Air quality

GEMS monitoring system consists of five closely interrelated programmes -

1. Climate-related monitoring;
2. Monitoring of long-range transport of pollutants;
3. Health-related monitoring (concerned with pollutional effects);
4. Ocean monitoring; and
5. Terrestrial renewable-resource monitoring.



Topic 211: Clean Seas campaign

Key points:

1. UN Environment launched Clean Seas campaign in 2017 - fight against marine plastic pollution
2. Targets the production and consumption of non-recoverable and single-use plastic
3. The campaign contributes to the goals of the Global Partnership on Marine Litter

Topic 212: Global Partnership on Marine Litter

Key points:

1. Launched at the UN Conference on Sustainable Development Rio+20 in June 2012
2. Manila Declaration
3. Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA)



Topic 213: Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA)

Key points:

1. Unique intergovernmental mechanism to counter the issue of land-based pollution
2. Only global intergovernmental mechanism – directly addressing connectivity between terrestrial, freshwater, coastal and marine ecosystems
3. Launched in 2015 by UNEP

Topic 214: Wild for Life campaign

Key points:

1. UN Environment's campaign against illegal trade in wildlife
2. Campaign aims to protect nine new marine species.

Nine Marine species –

1. Mako shark
2. Penguin
3. Sea horse
4. Manta ray
5. Elkhorn and Staghorn coral
6. Dugong
7. Polar bear
8. Sperm whale
9. Thresher shark



Topic 215: India State of the Forest Report 2019

About ISFR:

1. Biennial publication of FSI
2. Assesses the forest and tree cover, bamboo resources, carbon stock and forest fires
3. 2019 report – 1st time assessed the qualitative nature of forest cover
4. Created a national forest inventory for the first time on produce from forests

Greening India

India's total forest and tree cover now stands at 80.73 million hectares—roughly 24.5% of its geographical area, but still far from the eventual 2030 target of 33% that India has committed to.

