

UPSC: Environment Module - ORACLE IAS

- Mentor:

Mr. Hemant

He is the Chief Mentor at Oracle IAS and has extensive teaching experience in UPSC CSE and PCS Exams. His easy conversational style and ability to break down complex topics analytically makes him a favorite with students. His passion for teaching and knowledge brought him to India after four years with Dell Technologies at Singapore. He is an alumnus of St. Joseph's Dehradun; Pant Nagar University (B.Tech) and SciencesPo Paris.

- Time duration: 20 days * 2 hours
- Included in the package:
 - Pre cum mains strategy
 - Answer writing practice
 - Doubt clearing session
- Books being followed:
 - Shankar IAS- Environment
 - NCERT
 - Indian express- Current affairs

Course outline:

Syllabus:

Conservation, environmental pollution and degradation, environmental impact assessment.

Sub Topic List:

1. Basic Introduction

- Concept of environment
- Types of environment

UPSC: Environment Module - ORACLE IAS

- Concept of Biosphere
- Concept of Ecosystem
- Input and output of an ecosystem
- Components of ecosystem
- Characteristics of an ecosystem
- Food chains and food webs
- Trophic levels
- Ecological pyramids
- Laws related to ecology
- Geochemical Cycles

2. Biodiversity

- What is biodiversity?
- Types of biodiversity
- Importance of biodiversity
- Causes of biodiversity loss
- Impact of the loss of biodiversity
- Ecologically Sensitive area

3. Biodiversity conservation

- Why it needed?
- In situ and ex situ conservation
- New technologies for conservation
- Economic incentives for conservation

UPSC: Environment Module - ORACLE IAS

- Role of government
- Role of NGOs
- People participation
- Community forest management
- Eco tourism
- Traditional methods of biodiversity conservation
- Initiatives in India

4. Water resource degradation

- Ocean resource degradation
- Groundwater degradation
- Surface water degradation
- Water management

5. Climate change and environment

- Introduction
- Causes
- Impact
- Initiatives
- Future initiatives
- Some new technologies to overcome climate change
- National treaties
- International treaties
- Analysis of treaties

UPSC: Environment Module - ORACLE IAS

- Country specific initiatives (some important)
- Disparity between developed and non developed on environment issues

6. Environment and urbanization

- Water degradation in urban areas
- Pollution in metros
- e-waste Management and Handling
- Disposal of untreated sewage
- Real estate boom and environment degradation
- Haphazard construction in hilly areas and impact
- Environment clearance and development issue
- Polythene bags and pollution
- Impact of tower radiation

7. Mining and environment

- Impact of mining on environmental degradation
- Go and No-Go policy of government
- Forest clearance issues
- Issue of displacement

8. Agriculture and environment

- Green revolution and its impact
- GM food and its impact
- Irrigation issues
- Contamination of land and water

UPSC: Environment Module - ORACLE IAS

- Desertification
- Deforestation

9. Renewable Energy

- Solar energy
- Hydro energy
- Tidal energy
- Wind energy
- Biomass
- OTEC
- Magnetohydrodynamics generator
- Fuel cell
- Geothermal energy
- Concept of green cities
- Hydrogen as a fuel
- Concept of green building
- Initiatives in India

10. Environmental impact assessment

- Meaning
- Process of EIA
- Process of EIA in India
- Organizations involved in EIA in India
- Advantages of EIA

UPSC: Environment Module - ORACLE IAS

- Economic development and EIA linkage
- Environment accounting
- Environment ethics

11. Concept of Sustainable Development

- What is sustainable development
- Parameters of Sustainable development
- Global and regional dimensions
- Sustainable agriculture
- Sustainable forest management
- Industrial waste management
- Water resource management