



VISION IAS

ENVIRONMENT PREVIOUS YEAR QUESTIONS 2013-2023 (SYLLABUS-WISE)

General Studies-I: Indian Heritage and Culture, History and Geography of the World and Society.

General Studies-III: Technology, Economic Development, Bio diversity, Environment, Security and Disaster Management

Climate Change

- The Intergovernmental Panel on Climate Change (IPCC) has predicted a global sea level rise of about one metre by AD 2100. What would be its impact in India and the other countries in the Indian Ocean region? (GS-III 2023, 15 marks)
- Discuss the consequences of climate change on the food security in tropical countries. (GS-I 2023, 10 marks)
- Discuss global warming and mention its effects on the global climate. Explain the control measures to bring down the level of greenhouse gases which cause global warming, in the light of the Kyoto Protocol, 1997. (GS-III 2022, 15 Marks)
- How do the melting of the Arctic ice and glaciers of the Antarctic differently affect the weather patterns and human activities on the Earth? Explain. (GS-I 2021, 10 Marks)
- Describe the major outcomes of the 26th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC). What are the commitments made by India in this conference? (GS-III 2021, 15 Marks)
- Explain the purpose of the Green Grid Initiative launched at World Leaders Summit of the COP26 UN Climate Change Conference in Glasgow in November, 2021. When was this idea first floated in the International Solar Alliance (ISA)? (GS-III 2021, 10 Marks)
- Examine the status of forest resources of India and its resultant impact on climate change. (GS-I 2020, 15 Marks)
- Assess the impact of global warming on the coral life system with examples. (GS-I 2019, 10 Marks)
- How does the cryosphere affect global climate? (GS-I 2017, 10 Marks)
- 'Climate Change' is a global problem. How India will be affected by climate change? How Himalayan and coastal states of India will be affected by climate change? (GS-III 2017, 15 Marks)
- Bring out the relationship between the shrinking Himalayan glaciers and the symptoms of climate change in the Indian sub-continent. (GS-I 2014, 10 Marks)
- Should the pursuit of carbon credits and clean development mechanisms set up under UNFCCC be maintained even though there has been a massive slide in the value of a carbon credit? Discuss with respect to India's energy needs for economic growth. (GS-III 2014 12.5, Marks)

Air Pollution

- Discuss in detail the photochemical smog emphasizing its formation, effects and mitigation. Explain the 1999 Gothenburg Protocol. (GS-III 2022, 10 Marks)
- Describe the key points of the revised Global Air Quality Guidelines (AQGs) recently released by the World Health Organisation (WHO). How are these different from its last update in 2005? What changes in India's National Clean Air Programme are required to achieve these revised standards? (GS-III 2021, 10 Marks)
- What are the key features of the National Clean Air Programme (NCAP) initiated by the Government of India? (GS-III 2020, 15 Marks)



- Mumbai, Delhi and Kolkata are the three Mega cities of the country but the air pollution is much more serious problem in Delhi as compared to the other two. Why is this so? (GS-I 2015, 12.5 Marks)
- Environmental Impact Assessment studies are increasingly undertaken before a project is cleared by the Government. Discuss the environmental impacts of coal-fired thermal plants located at coal pitheads. (GS-III 2014, 12.5 Marks)

Water

- Comment on the National Wetland Conservation Programme initiated by the Government of India and name a few India's wetlands of international importance included in the Ramsar Sites. (GS-III 2023, 15 marks)
- What is oil pollution? What are its impacts on the marine ecosystem? In what way is oil pollution particularly harmful for a country like India? (GS-III 2023, 10 marks)
- Why is the world today confronted with a crisis of availability of and access to freshwater resources? (GS-I 2023, 10 marks)
- What are the environmental implications of the reclamation of the water bodies into urban land use? Explain with examples. (GS-I 2021, 10 Marks)
- How will the melting of Himalayan glaciers have a far-reaching impact on the water resources of India? (GS-I 2020, 10 Marks)
- What are the salient features of the Jal Shakti Abhiyan launched by the Government of India for water conservation and water security? (GS-III 2020, 10 Marks)
- Suggest measures to improve water storage and irrigation system to make its judicious use under depleting scenario. (GS-III 2020, 15 Marks)
- What is water stress? How and why does it differ regionally in India? (GS-I 2019, 15 Marks)
- Elaborate the impact of National Watershed Project in increasing agricultural production from water-stressed areas. (GS-III 2019, 10 Marks)
- What are the consequences of spreading of 'Dead Zones' on marine ecosystem? (GS-I 2018, 10 Marks)
- "The ideal solution of depleting ground water resources in India is water harvesting system." How can it be made effective in urban areas? (GS-I 2018, 15 Marks)
- Defining blue revolution, explain the problems and strategies for pisciculture development in India. (GS-I 2018, 15 Marks)
- In what way micro-watershed development projects help in water conservation in drought-prone and semi-arid regions of India? (GS-I 2016, 12.5 Marks)
- India is well endowed with fresh water resources. Critically examine why it still suffers from water scarcity. (GS-I 2015, 12.5 Marks)
- Discuss the Namami Gange and National Mission for Clean Ganga (NMCG) programmes and causes of mixed results from the previous schemes. What quantum leaps can help preserve the river Ganga better than incremental inputs? (GS-III 2015, 12.5 Marks)
- Enumerate the National Water Policy of India. Taking river Ganges as an example, discuss the strategies which may be adopted for river water pollution control and management. What are the legal provisions of management and handling of hazardous wastes in India? (GS-III 2013, 10 Marks)

Land Degradation

- The process of desertification does not have climatic boundaries. Justify with examples. (GS-I 2020, 10 Marks)

Sustainable Development

- The adoption of electric vehicles is rapidly growing worldwide. How do electric vehicles contribute to reducing carbon emissions and what are the key benefits they offer compared to traditional combustion engine vehicles? (GS-III 2023, 15 marks)
- What is Integrated Farming System? How is it helpful to small and marginal farmers in India? (GS-III 2022, 15 Marks)
- How and to what extent would micro-irrigation help in solving India's water crisis? (GS-III 2021, 10 Marks)



- How does the draft Environmental Impact Assessment (EIA) Notification, 2020 differ from the existing EIA Notification, 2006? (GS-III 2020, 10 Marks)
- Coastal sand mining, whether legal or illegal, poses one of the biggest threats to our environment. Analyse the impact of sand mining along the Indian coasts, citing specific examples. (GS-III 2019, 10 Marks)
- How far is Integrated Farming System (IFS) helpful in sustaining agricultural production? (GS-III 2019, 10 Marks)
- Define the concept of carrying capacity of an ecosystem as relevant to an environment. Explain how understanding this concept is vital while planning for sustainable development of a region. (GS-III 2019, 15 Marks)
- What are the impediments in disposing the huge quantities of discarded solid wastes which are continuously being generated? How do we remove safely the toxic wastes that have been accumulating in our habitable environment? (GS-III 2018, 10 Marks)
- Sikkim is the first 'Organic State' in India. What are the ecological and economical benefits of Organic State? (GS-III 2018, 10 Marks)
- "In spite of adverse environmental impact, coal mining is still inevitable for development." Discuss (GS-I 2017, 10 Marks)
- Mention the advantages of the cultivation of pulses because of which the year 2016 was declared as the International Year of Pulses by the United Nations. (GS-I 2017, 10 Marks)
- In what way can floods be converted into a sustainable source of irrigation and all-weather inland navigation in India? (GS-I 2017, 15 Marks)
- The effective management of land and water resources will drastically reduce the human miseries. Explain. (GS-I 2016, 12.5 Marks)
- The states of Jammu and Kashmir, Himachal Pradesh and Uttarakhand are reaching the limits of ecological carrying capacity due to tourism. Critically evaluate. (GS-I 2015, 12.5 Marks)
- What are the consequences of Illegal mining? Discuss the Ministry of Environment and Forest's concept of GO AND NO GO zones for coal mining sector. (GS-III 2013, 10 Marks)

Renewable energy and Alternative Energy Resources

- Discuss several ways in which microorganisms can help in meeting the current fuel shortage. (GS-III 2023, 10 marks)
- Examine the potential of wind energy in India and explain the reasons for their limited spatial spread. (GS-I 2022, 10 Marks)
- Do you think India will meet 50 percent of its energy needs from renewable energy by 2030? Justify your answer. How will the shift of subsidies from fossil fuels to renewables help achieve the above objective? Explain. (GS-III 2022, 15 Marks)
- India has immense potential of solar energy though there are regional variations in its development. Elaborate. (GS-I 2020, 15 Marks)
- Describe the benefits of deriving electric energy from sunlight in contrast to the conventional energy generation. What are the initiatives offered by our Government for this purpose? (GS-III 2020, 15 Marks)
- Give an account of the current status and the targets to be achieved pertaining to renewable energy sources in the country. Discuss in brief the importance of National Programme on Light Emitting Diodes (LEDs). (GS-III 2016, 12.5 Marks)
- It is said that India has substantial reserves of shale oil and gas, which can feed the needs of the country for quarter century. However, tapping of the resource does not appear to be high on the agenda. Discuss critically the availability and issues involved. (GS-I 2013, 10 Marks)
- With growing scarcity of fossil fuels, the atomic energy is gaining more and more significance in India. Discuss the availability of raw material required for the generation of atomic energy in India and in the world. (GS-I 2013, 10 Marks)

Conservation

- Identify and discuss the factors responsible for diversity of natural vegetation in India. Assess the significance of wildlife sanctuaries in rain forest regions of India. (GS-I 2023, 15 marks)
- Explain the causes and effects of coastal erosion in India. What are the available coastal management techniques for combating the hazard? (GS-III 2022, 15 Marks)



- Discuss the causes of depletion of mangroves and explain their importance in maintaining coastal ecology. (GS-I 2019, 10 Marks)
- How can the mountain ecosystem be restored from the negative impact of development initiatives and tourism? (GS-I 2019, 15 Marks)
- How is the government of India protecting traditional knowledge of medicine from patenting by pharmaceutical companies? (GS-III 2019, 15 Marks)
- What is wetland? Explain the Ramsar concept of 'wise use' in the context of wetland conservation. Cite two examples of Ramsar sites from India. (GS-III 2018, 10 Marks)
- How does biodiversity vary in India? How is the Biological Diversity Act, 2002 helpful in conservation of flora and fauna? (GS-III 2018, 15 Marks)
- Rehabilitation of human settlements is one of the important environmental impacts which always attracts controversy while planning major projects. Discuss the measures suggested for mitigation of this impact while proposing major developmental projects. (GS-III 2016, 12.5 Marks)
- Environmental Impact Assessment studies are increasingly undertaken before a project is cleared by the Government. Discuss the environmental impacts of coal-fired thermal plants located at coal pitheads. (GS-III 2014, 12.5 Marks)

Disaster Management

- Dam failures are always catastrophic, especially on the downstream side, resulting in a colossal loss of life and property. Analyze the various causes of dam failures. Give two examples of large dam failures. (GS-III 2023, 10 marks)
- Comment on the resource potentials of the long coastline of India and highlight the status of natural hazard preparedness in these areas. (GS-I 2023, 15 marks)
- Discuss the meaning of colour-coded weather warnings for cyclone prone areas given by India Meteorological department. (GS-I 2022, 10 Marks)
- Explain the mechanism and occurrence of cloudburst in the context of the Indian subcontinent. Discuss two recent examples. (GS-III 2022, 10 Marks)
- Discuss about the vulnerability of India to earthquake related hazards. Give examples including the salient features of major disasters caused by earthquakes in different parts of India during the last three decades. (GS-III 2021, 10 Marks)
- Describe the various causes and the effects of landslides. Mention the important components of the National Landslide Risk Management Strategy. (GS-III 2021, 15 Marks)
- Account for the huge flooding of million cities in India including the smart ones like Hyderabad and Pune. Suggest lasting remedial measures. (GS-I 2020, 15 Marks)
- Discuss the recent measures initiated in disaster management by the Government of India departing from the earlier reactive approach. (GS-III 2020, 15 Marks)
- Vulnerability is an essential element for defining disaster impacts and its threat to people. How and in what ways can vulnerability to disasters be characterized? Discuss different types of vulnerability with reference to disasters. (GS-III 2019, 10 Marks)
- Disaster preparedness is the first step in any disaster management process. Explain how hazard zonation mapping will help in disaster mitigation in the case of landslides. (GS-III 2019, 15 Marks)
- Describe various measures taken in India for Disaster Risk Reduction (DRR) before and after signing 'Sendai Framework for DRR (2015-2030)'. How is this framework different from 'Hyogo Framework for Action, 2005'? (GS-III 2018, 15 Marks)
- On December 2004, tsunami brought havoc on 14 countries including India. Discuss the factors responsible for occurrence of Tsunami and its effects on life and economy. In the light of guidelines of NDMA (2010) describe the mechanisms for preparedness to reduce the risk during such events. (GS-III 2017, 15 Marks)
- "The Himalayas are highly prone to landslides." Discuss the causes and suggest suitable measures of mitigation. (GS-I 2016, 12.5 Marks)
- Major cities of India are becoming vulnerable to flood conditions. Discuss. (GS-I 2016, 12.5 Marks)
- The frequency of urban floods due to high intensity rainfall is increasing over the years. Discussing the reasons for urban floods, highlight the mechanisms for preparedness to reduce the risk during such events. (GS-III 2016, 12.5 Marks)



- With reference to National Disaster Management Authority (NDMA) guidelines, discuss the measures to be adopted to mitigate the impact of recent incidents of cloudbursts in many places of Uttarakhand. (GS-III 2016, 12.5 Marks)
- The frequency of earthquakes appears to have increased in the Indian subcontinent. However, India's preparedness for mitigating their impact has significant gaps. Discuss various aspects. (GS-III 2015, 12.5 Marks)
- Drought has been recognized as a disaster in view of its spatial expanse, temporal duration, slow onset and lasting effects on vulnerable sections. With a focus on the September 2010 guidelines from the National Disaster Management Authority (NDMA), discuss the mechanisms for preparedness to deal with likely El Nino and La Nina fallouts in India. (GS-III 2014, 12.5 Marks)
- The recent cyclone on the east coast of India was called 'Phailin'. How are the tropical cyclones named across the world? Elaborate. (GS-I 2013, 5 Marks)
- How important are vulnerability and risk assessment for pre-disaster management? As an administrator, what are key areas that you would focus on in a Disaster Management System? (GS-III 2013, 10 Marks)

Miscellaneous/Geography

- How are the fjords formed? Why do they constitute some of the most picturesque area of the world? (GS-I 2023, 10 marks)
- What are the forces that influence ocean currents? Describe their role in fishing industry of the world. (GS-I 2022, 15 Marks)
- Describing the distribution of rubber producing countries, indicate the major environmental issues faced by them. (GS-I 2022, 15 Marks)
- Troposphere is a very significant atmospheric layer that determines weather processes. How? (GS-I 2022, 15 Marks)
- Differentiate the causes of landslides in the Himalayan region and Western Ghats. (GS-I 2021, 10 Marks)
- Mention the global occurrence of volcanic eruptions in 2021 and their impact on regional environment. (GS-I 2021, 10 Marks)
- Briefly mention the alignment of major mountain ranges of the world and explain their impact on local weather conditions, with examples. (GS-I 2021, 15 Marks)
- Discuss the geophysical characteristics of Circum-Pacific Zone. (GS-I 2020, 10 Marks)
- Account for the present location of iron and steel industries away from the source of raw material, by giving examples. (GS-I 2020 10, Marks)
- The interlinking of rivers can provide viable solutions to the multi-dimensional inter-related problems of droughts, floods and interrupted navigation. Critically examine. (GS-I 2020, 15 Marks)
- Discuss the factors for localisation of agro-based food processing industries of North-West India. (GS-I 2019, 10 Marks)
- How do ocean currents and water masses differ in their impacts on marine life and coastal environment? (GS-I 2019, 15 Marks)
- Why is India taking keen interest in resources of Arctic region? (GS-I 2018, 10 Marks)
- Define mantle plume and explain its role in plate tectonics. (GS-I 2018, 10 Marks)
- Account for variations in oceanic salinity and discuss its multi-dimensional effects. (GS-I 2017, 15 Marks)
- Petroleum refineries are not necessarily located nearer to crude oil producing areas, particularly in many of the developing countries. Explain its implications. (GS-I 2017, 15 Marks)
- What characteristics can be assigned to monsoon climate that succeeds in feeding more than 50 percent of the world population residing in Monsoon Asia? (GS-I 2017, 15 Marks)
- Not many years ago, river linking was a concept but it is becoming reality in the country. Discuss the advantages of river linking and its possible impact on the environment. (GS-III 2017, 10 Marks)
- One of the intended objectives of Union Budget 2017-18 is to 'transform, energize and clean India'. Analyse the measures proposed in the Budget 2017-18 to achieve the objective. (GS-III 2017, 15 Marks)
- Discuss the concept of air mass and explain its role in macro-climatic changes. (GS-I 2016, 12.5 Marks)
- Explain the factors responsible for the origin of ocean currents. How do they influence regional climates, fishing and navigation? (GS-I 2015, 12.5 Marks)
- What are the economic significances of discovery of oil in Arctic Sea and its possible environmental consequences? (GS-I 2015, 12.5 Marks)



- How far do you agree that the behaviour of the Indian monsoon has been changing due to humanizing landscape? Discuss. (GS-I 2015, 12.5 Marks)
- Most of the unusual climatic happenings are explained as an outcome of the El-Nino effect. Do you agree? (GS-I 2014, 10 Marks)
- Why are the world's fold mountain systems located along the margins of continents? Bring out the association between the global distribution of fold mountains and the earthquakes and volcanoes. (GS-I 2014, 10 Marks)
- Explain the formation of thousands of islands in Indonesian and Philippines archipelagos. (GS-I 2014, 10 Marks)
- Tropical cyclones are largely confined to South China Sea, Bay of Bengal and Gulf of Mexico. Why? (GS-I 2014, 10 Marks)
- Whereas the British planters had developed tea gardens all along the Shivaliks and Lesser Himalayas from Assam to Himachal Pradesh, in effect they did not succeed beyond the Darjeeling area. Explain. (GS-I 2014, 10 Marks)
- Why did the Green Revolution in India virtually by-pass the eastern region despite fertile soil and good availability of water? (GS-I 2014, 10 Marks)
- Account for the change in the spatial pattern of the Iron and Steel industry in the world. (GS-I 2014, 10 Marks)
- Critically evaluate the various resources of the oceans which can be harnessed to meet the resource crisis in the world. (GS-I 2014, 10 Marks)
- How does India see its place in the economic space of rising natural resources rich Africa? (GS-I 2014, 10 Marks)
- What do you understand by the theory of continental drift? Discuss the prominent evidences in its support. (GS-I 2013, 5 Marks)
- Bring out the causes for the formation of heat islands in the urban habitat of the world. (GS-I 2013, 5 Marks)
- What do you understand by the phenomenon of 'temperature inversion' in meteorology? How does it affect weather and the habitants of the place? (GS-I 2013, 5 Marks)
- Major hot deserts in northern hemisphere are located between 20-30 deg N latitudes and on the western sides of the continents. Why? (GS-I 2013, 10 Marks)
- Bring out the causes for more frequent occurrence of landslides in the Himalayas than in the Western Ghats. (GS-I 2013, 5 Marks)
- There is no formation of deltas by rivers on the Western Ghats. Why? (GS-I 2013, 5 Marks)
- Do you agree that there is a growing trend of opening new sugar mills in southern states of India? Discuss with justification. (GS-I 2013, 5 Marks)
- Analyze the factors for the highly decentralized cotton textile industry in India. (GS-I 2013, 5 Marks)

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