

1. What are grasslands? Discuss their global distribution. Also examine their ongoing desertification by taking the Sahel region as the case in point.

Approach

Define what are grasslands in introduction. In next explain their global distribution, a map can be used to substantiate your point. In next part mention the causes for desertification of Sahel region. End your answer with reform and future oriented conclusion.

Introduction

Grasslands are a type of biomes where the land is predominantly filled with tall and short grasses with very few scattered trees. They are found distributed across the world except on Antarctic. Grasslands occur in environments conducive to the growth of this plant cover but not to that of taller plants, particularly trees and shrubs. The factors preventing establishment of such taller, woody vegetation are varied. Grasslands account for between 20 and 40 percent of the world's land area.

Body

The most extensive natural grasslands can be thought of as intermediates in an environmental gradient, with forests at one end and deserts at the other. Forests occupy the most favourable environments, where moisture is adequate for growth and survival of a tall, dense vegetation dominated by trees. Deserts are found where moisture is so lacking that a continuous, permanent vegetation cover cannot be maintained. Grasslands lie between these two extremes.

Global distribution of Grasslands:

There are two main kinds of grasslands: tropical and temperate. Examples of temperate grasslands include Eurasian steppes, North American prairies, and Argentine pampas. Tropical grasslands include the hot savanna of sub-Saharan Africa and northern Australia.

Tropical grasslands:

- Tropical grasslands generally lie between the belts of tropical forest and desert.
- Tropical grasslands occur in the same regions as savannas, and the distinction between these two vegetation types is rather arbitrary, depending on whether there are few or many trees.
- Tropical grasslands are found mainly in the Sahel south of the Sahara, in East Africa, and in Australia. Temperate grasslands principally occur in North America, Argentina, and across a broad band from Ukraine to China, but in most of these regions they have been substantially altered by agricultural activities.

Temperate Grasslands:

- Temperate grasslands are characterised as having grasses as the dominant vegetation. Trees and large shrubs are absent. Temperatures vary more from summer to winter, and the amount of rainfall is less in temperate grasslands than in savannahs.
- The major manifestations are the veldts of South Africa, the puszta of Hungary, the pampas of Argentina and Uruguay, the steppes of the former Soviet Union, and the plains and prairies of central North America.

Types of Grasslands in India

About 24% of land in India is covered with grasslands. The grasslands in India are classified into the following main categories

- **Sub-Himalayan Grasslands:** This region extends from the foothills of the Himalayas from Jammu and Kashmir to Arunachal Pradesh. This belt of grasslands lies in the fertile Terai region and is marked by tall, dense grasses with a few trees.
- **Montane Grasslands:** Montane grasslands mean mountainous grasslands. These are found in different mountainous areas of the country. The grassland ecosystem here is based on the altitude of mountains, soil and rock type, the slope of the mountain, etc.
 - These can be further classified as Himalayan tropical and temperate grasslands, alpine meadows, Trans-Himalayan Steppes, which are found on mountain slopes of the Himalayas in Kashmir, Uttarakhand, Himachal Pradesh and Sikkim respectively.
 - The Mark grasslands of Kashmir, Bugyal grasslands of Uttarakhand, Khajjar grasslands of Himachal Pradesh, Dzukou Valley of Uttarakhand, Ukhrul grasslands of Manipur, Saramati grasslands of Nagaland, etc. are some examples of montane grasslands in India.
- **Riverine Alluvial Grasslands :** These grasslands are found on the fertile river plains of the Indo-Gangetic plain, Brahmaputra plain and rivers of central India like Narmada, Cauveri, Krishna, etc.
- **Coastal Grasslands:** the coastal grasslands in India are spread over beach sand forming a thick mat-like cover. For example, the Banni and Vidi grassland of Rann of Kachch, Gujarat.
- **Wet Grasslands:** These grasslands are mainly found in the water-logged areas of northern plains. These are famously called as floating grasslands and are marked by dense, tall vegetation. Semi-aquatic species of grasses dominate these grasslands. For example, the Phumdi grassland of Manipur.

Desertification of Sahel region: Causes of desertification

Desertification is the process of land turning into desert as the quality of the soil declines over time. Many countries around the world suffer from the problems caused by desertification but it is the Sahel region of Africa where the effects are greatest. The Sahel is a narrow belt of land which lies immediately to the south of the Sahara Desert and which extends across most of Africa. The main causes of desertification include:

- Population growth - the population in some desert areas is increasing. In places where there are developments in mining and tourism, people are attracted by jobs. An increased population is putting greater pressure on the environment for resources such as wood and water.
- Removal of wood - in developing countries, people use wood for cooking. As the population in desert areas increases, there is a greater need for fuel wood. When the land is cleared of trees, the roots of the trees no longer hold the soil together so it is more vulnerable to soil erosion.
- Overgrazing - an increasing population results in larger desert areas being farmed. Sheep, cattle and goats are overgrazing the vegetation. This leaves the soil exposed to erosion.
- Soil erosion - this is made worse by overgrazing and the removal of wood. Population growth is the primary cause for soil erosion.
- Climate change - the global climate is getting warmer. In desert regions conditions are not only getting warmer but drier too. On average there is less rain now in desert regions than there was 50 years ago.

Conclusion

Grasslands provide important services and roles including as water catchments, biodiversity reserves, for cultural and recreational needs, and potentially a carbon sink to alleviate greenhouse gas emissions. Therefore ending desertification of these biomes is the best chance the world has to stabilise the effects of climate change, save wildlife species and protect our well-being. Protecting the forest is our mutual responsibility, which should be carried out by people and governments worldwide.

2. Examine the prospects of blue economy in the Indian Ocean.**Approach**

Make a brief introduction on what is meant by blue economy and contextualise to Indian ocean region. In next part write the various perspectives of this blue economy for the Indian ocean region and India. In conclusion highlight how its important for a India to leverage the blue economy to attain a higher economic growth in future.

Introduction

Oceans cover 72 percent of the surface of our blue planet and provide a substantial portion of the global population with food and livelihood. Enhancing more than 80 percent of global trade, marine and coastal environments constitute a key resource for economic development. On the basis of the strategic location of the Indian Ocean region, India and other Indian ocean rim members can develop a Blue Economy in a sustainable, inclusive and people centred manner from resources available in Indian ocean.

Body

The objective of the Blue Economy is to promote smart, sustainable and inclusive growth and employment opportunities within the Indian Ocean region's maritime economic activities. The Blue Economy is determined to initiate appropriate programs for: the sustainable harnessing of ocean resources; research and development; developing relevant sectors of oceanography; stock assessment of marine resources; introducing marine aquaculture, deep sea/long line fishing and biotechnology; and human resource development; among others.

Prospects of blue economy in Indian Ocean waters:

- **Fisheries & Aquaculture** : Fisheries, which is a vital oceanic resource forms the core of the Blue Economy. It plays an important role in ensuring food security, poverty alleviation and also has a huge potential for business opportunities. Aquaculture, which offers huge potential for the provision of food and livelihoods, will under the Blue Economy incorporate the value of the natural capital in its development, respecting ecological parameters throughout the cycle of production, creating sustainable, decent employment and offer high value commodities for export.
- **Renewable Ocean Energy** : The world population is expected to increase to an estimated 9 billion people in 2050, which is 1.5 times greater than the current population, resulting in an increase in countries' demands on fossil fuels. The time is therefore appropriate to explore the potential of renewable energy derived from the ocean. The ocean offers vast potential for renewable "blue energy" from wind, wave, tidal, thermal and biomass sources.
- **Seaports & Shipping** : The seaport and maritime transport sector is one of the important priority sectors under the Blue Economy. In spite of the continuous

rise of maritime transport and shipping transactions in the region, uneven distribution of trade exists among the rim countries, where only a handful are benefiting economically from maritime exchanges and transportation. In this regard, regional cooperation is important for unlocking the bottlenecks to ports development and maritime economy expansion in the Indian Ocean so as to enhance blue growth through economic cooperation and trade relations between Member States.

- **Offshore Hydrocarbons & Seabed Minerals:** With the decreasing inland mineral deposits and increasing industrial demands, much attention is being focused on mineral exploration and mining of the seabed. Seabed exploration in the Indian Ocean has already started, but the major constraints in the commercialization of these resources lie in the fact that Member States have limited data on the resources their exclusive economic zone (EEZ) possesses, lack capacity for exploration, mining and processing of these minerals. Therefore, improved information is needed to assess the potential across the region.
- **Marine Biotechnology Research & Development :** Marine biotechnology (or Blue Biotechnology) is considered an area of great interest and potential due to the contribution for the building of an eco-sustainable and highly efficient society. A fundamental aspect is related to aquaculture, whereby new methodologies will help in: selective breeding of species; increasing sustainability of production; and enhancing animal welfare, including adjustments in food supply, preventive therapeutic measures, and use of zero-waste recirculation systems.
- **Tourism :** Marine tourism, with its related marine activities (including cruise tourism), is a growing industry that represent an important contributor to the economy of countries and for generating employment. Sustainable coastal tourism can assist with the preservation of artisanal fishing communities, allow for subsistence fishing, protect the environment, and make positive contributions to sustainable economic development. In addition to providing areas for recreation and enjoyment, marine parks support billions of dollars of vital ecosystem services worldwide.
- **Sustainable Whale and Dolphin Watching Tourism :** Whale and dolphin watching tourism is one of the fastest growing marine tourism sectors in the world and is on the rise in the IORA region. Whale and dolphin watching tourism can create economic, social, and environmental benefits such as inclusive economic growth and job creation for coastal communities, while also encouraging the protection of marine species and habitats.
- **Climate mitigation :** Blue carbon ecosystems have an immense capacity to sequester carbon, a feature which makes them a good candidate for efforts to mitigate climate change. Indeed, the name reflects the high amount of organic carbon they contain. In addition, they support livelihoods in a variety of ways including through fisheries, and can reduce the effects of storms.

Conclusion:

Recently, the Ministry of Earth Sciences (MoES) has rolled out the draft Blue Economy policy, inviting suggestions and inputs from various stakeholders. It is in line with the Government of India's Vision of New India by 2030. Development of Blue economy can serve as growth catalyst in achieving super power status and \$10 Trillion economy. To tap this, government needs to introduce many schemes like Sagarmala, combat piracy and increase Naval strength to protect its open borders.



3. Section 66A of the IT Act was in news recently. Why? What are your views on this issue?

Approach

In introduction mention why the section 66A was in news recently. In next part mention why it was scrapped in the first place and at last write what are the implications of its use by police and what measures need to be taken to mitigate this phenomenon.

Introduction

The Supreme Court has issued a notice to the Centre on the use of Section 66A of the IT Act that was scrapped several years ago and said that it is shocking that the judgment striking down the law has not been implemented even now. Even after 7 years of the law being struck down, as of March 2021, a total of 745 cases are still pending and active before the district courts in 11 states, wherein the accused persons are being prosecuted for offences under Section 66A of the IT Act.

Body

Section 66A had been dubbed as “draconian” for it allowed the arrest of several innocent persons, igniting a public outcry for its scrapping. This had led to the Supreme Court striking it down as unconstitutional in March, 2015 in *Shreya Singhal v. Union of India*.

Reasons why it was struck down :

- The SC had noted that Section 66A arbitrarily, excessively and disproportionately invades the right of free speech, under article 19(1) (a) of the Constitution, and upsets the balance between such right and the reasonable restrictions that may be imposed on such right and the definition of offences under the provision was open-ended and undefined.
- The court also said that the provision used expressions “completely open-ended and undefined” and every expression used was “nebulous” in meaning.
- What may be offensive to one may not be offensive to another.
- What may cause annoyance or inconvenience to one may not cause annoyance or inconvenience to another.
- Even the expression ‘persistently’ is completely imprecise.

Issues arising out of it :

- The police have slapped Section 66A on citizens in several cases even after it was scrapped. This is open disobedience and an insult to the authority of the Supreme Court.
- As per Article 144, the government is duty-bound to implement the verdict of the Supreme Court as its ruling becomes the law of the land as per Article 141.

- The government must bring the ruling of the Supreme Court to the knowledge of all law-enforcement agencies that deal with the IT Act so that the people don't suffer unnecessarily.
- In India where cases are lagging for many years it becomes hard for most of the people with less resources to appeal in court's regarding constitutional issues. This leads to many languishing in jail without any trial.
- The freedom of speech of citizens gets prohibited even though it is neither having constitutional backing and nor statutory. This becomes blatantly illegal and citizens have no recourse.

Measures needed to be taken:

- The government needs to amend the bare act to delete the section 66A as after it being declared unconstitutional it is irrational to keep it in statute books. It will avoid any ambiguity and also stop harassment of citizens.
- There is a need to circulate judgments of the Court to the police and other law-enforcement agencies and keep them updated about developments regarding penal provisions.
- Police officers need periodic legal training by law universities and academies in this regard. It will help them update their legal knowledge because the police is expected to have a fair knowledge and understanding of laws and judgments of the Courts and be made sensitive about human rights and dignity.
- In addition, all pending criminal proceedings under Section 66A should be quashed and some reasonable compensation given to the aggrieved persons.
- It's the duty of Media and civil society to take this message in masses to raise the awareness in police and public at large.

Conclusion

Freedom of expression is an essential fundamental right guaranteed by the constitution of India. Further its limits have also been determined by the constitution and government from time to time. But when some statutory restriction has been held ultra vires by the Supreme Court and still the police force and government uses this section 66A to muzzle the voice of citizens then it is illegal and undemocratic in nature. Therefore the government needs to take immediate measures to cure this anomaly and uphold the rule of law.