

1. Discuss the geographical extent of Telangana and describe its major physiographic divisions.

Telangana, the **29th state of India**, carved out of Andhra Pradesh in 2014, is located in the **heart of peninsular India**. As per the 2011 Census, it is the **11th largest** in area and **12th in population**. Its geography is largely influenced by its position on the **Deccan Plateau** and by major river systems like the **Godavari and Krishna**, which play a vital role in shaping its physiography, agriculture, and economy.

Geographical Extent of Telangana



Telangana is situated in the **central-eastern part of the Deccan Plateau**, roughly between **15°46'N to 19°47'N latitude** and **77°16'E to 81°43'E longitude**.

- The state covers a total area of **1,12,077 sq. km**.
- It is bordered by:
 - ✓ **Maharashtra** to the **north and northwest**,
 - ✓ **Chhattisgarh** to the **north**,
 - ✓ **Karnataka** to the **west**, and
 - ✓ **Andhra Pradesh** to the **south, east, and northeast**.
- The state's terrain features **undulating plateaus, isolated hills, and river basins**, contributing to its agro-climatic diversity.

Major Physiographic Divisions of Telangana

Telangana can be broadly divided into three major physiographic regions:

1. Godavari Depression (Godavari Basin Region)

- Lies in the **northeastern part** of the state, covering around **38,000 sq. km.**
- Drained predominantly by the **Godavari River**, which flows southeast.
- Soils include **red sandy, black cotton, alluvial, and loamy clay soils.**
- **Isolated hills** like **Hasanaparathi** and **Chandragiri** mark the landscape.
- Districts: Jagtial, Karimnagar, Peddapalli, Warangal, Bhadrachalam, and others.

2. Telangana Plateau

- The **largest physiographic region**, covering about **57,370 sq. km.**
- Composed of **Archean gneiss, biotite, and hornblende** rocks.
- Divided into **Telangana Plateau (north)** and **Golconda Plateau (south).**
- Elevation ranges from **500–600 m above mean sea level**, higher in the west and southwest.
- Characterized by **gently undulating topography** and **dry deciduous vegetation.**

3. Krishna Piedmont (Krishna Foothill Region)

- Lies along the **southern border**, dissected by rivers Krishna and Dindi.
- Formed by **peneplains and lava plateaus**, with elevations from **600–900 m.**
- Soil is predominantly **red sandy**, with **dry scrub vegetation.**
- Districts: Nalgonda, Suryapet, and Yadadri.

Telangana's physiography, shaped by its location on the **Deccan Plateau** and flanked by **river basins**, gives rise to varied topography, climatic conditions, and soil types. These physical divisions significantly influence the state's **agricultural practices, settlement patterns, and infrastructure development**, making geography a cornerstone of Telangana's economic planning.

2. Provide an overview of forest cover in Telangana and examine the significance of wildlife conservation in the state. What are the major challenges to its success?

Introduction

Telangana, located on the Deccan Plateau, is endowed with **diverse forest types and rich biodiversity.** Despite its semi-arid climate, the state plays a crucial role in India's ecological framework due to its **protected areas and wildlife habitats.** Forest conservation and wildlife protection are integral to ensuring **sustainable development, climate resilience, and ecological balance** in the region.

Forest Cover in Telangana: An Overview

- As per the **State Socio Economic outlook 2024**, Telangana has a **forest cover of 26,969 sq. km,** which constitutes approximately **24.06%** of its total geographical area.
- The state houses **12 Protected Areas** — including **3 National Parks** and **9 Wildlife Sanctuaries,** spanning over **5,692 sq. km.**
- Telangana's forests range from **dry deciduous to scrublands,** offering habitats for a wide range of flora and fauna including **tigers, leopards, deer, wild boars, and various bird species.**

Significance of Wildlife Conservation

1. Maintaining Ecological Balance

Wildlife ensures **pollination, seed dispersal, and nutrient cycling,** helping maintain predator-prey dynamics critical for ecological stability.

2. Biodiversity Preservation

Telangana's forests are home to several **endangered and endemic species.** Conservation sustains genetic diversity and prevents habitat fragmentation.

3. Sustainable Livelihoods & Ecotourism

Wildlife sanctuaries promote **ecotourism**, creating jobs and encouraging local community participation through **eco-development committees**.

4. Climate Regulation

Forests act as **carbon sinks**, mitigate the impact of climate change, and maintain the **water cycle and soil quality**.

Major Challenges to Wildlife Conservation

➤ Habitat Loss & Fragmentation

Rapid **urbanization and infrastructure development**, like the Hyderabad–Warangal Corridor, disrupt wildlife corridors and natural ecosystems.

➤ Poaching & Illegal Trade

Incidents of **tiger poaching** in Amarabad and **bird trafficking** continue despite legal frameworks and enforcement efforts.

➤ Human-Wildlife Conflict

Rising incidents of **crop raiding (wild boars)** and **livestock predation (leopards)** provoke retaliation, endangering both wildlife and human lives.

➤ Environmental Pollution

Rivers like the **Musi** face heavy industrial pollution. **Plastic waste** in forest zones also harms terrestrial and aquatic wildlife.

➤ Climate Change Impact

Erratic rainfall and rising temperatures affect **breeding cycles**, water availability, and **migratory patterns** of species.

Steps Taken by Telangana Government

- ✓ **AI-based surveillance** and **camera traps** for real-time monitoring.
- ✓ **Community engagement** through awareness campaigns and participatory conservation.
- ✓ **Anti-poaching initiatives** like “**Catch the Trap**” drive and setting up of a **State Tiger Protection Force (STPF)**.
- ✓ **Bio-fencing** using thorny plants like *Carissa Carandas* in Adilabad to prevent crop damage.
- ✓ **Pollution and climate resilience measures**, such as restoring water bodies and creating artificial waterholes.

Conclusion

Telangana’s proactive approach to forest and wildlife conservation is commendable, but addressing the **human-wildlife interface**, **enforcing environmental laws**, and ensuring **climate adaptability** are essential for long-term success. With collaborative efforts from the government, local communities, and conservationists, Telangana can safeguard its **ecological heritage for future generations**.