



A Few Minutes Series

Subject - Environment

Date - 22nd March 2023

Click <u>here</u> to watch the following topics on YouTube

All About Invasive Plant Species



 An invasive or alien species is an introduced species to an environment that becomes overpopulated and harms its new environment.



 They can be introduced to an area by ship ballast water, accidental release, and most often, by people.



Common characteristics of IAS include

- Rapid reproduction and growth,
- High dispersal ability,
- Phenotypic plasticity (ability to adapt physiologically to new conditions), and
- Ability to survive on various food types and in a wide range of environmental conditions.



Senna Spectabilis



- *Senna spectabilis* is a deciduous tree native to tropical areas of America.
- It grows up to 15 to 20 metres in a short period of time and distributes thousands of seeds after flowering.
- The thick foliage of the tree arrests the growth of other indigenous tree and grass species.
- Allelochemicals produced by *Senna spectabilis* prevent germination of many native species.

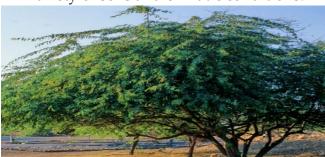




- Thus, it causes food shortage for the wildlife population, especially herbivores.
- It is categorised as 'Least Concern' under IUCN Red List.

Prosopis Juliflora

- Prosopis juliflora (Vilaiti Keekar), a nonnative and invasive tree species, belongs to South and Central America.
- It is a shrub or small tree, commonly known as Seemai Karuvelam.
- It has superior ability to adapt and establish itself in the given environment as it is capable of growing in a wide variety of soils and climatic conditions.



- Prosopis was introduced into India's arid landscapes in the late 19th century owing to misplaced beliefs that deserts and grasslands were wastelands and hence needed trees.
- It has encroached over half Banni, one of Asia's largest grasslands in Gujarat.
- Prosopis was introduced in Banni to keep the salt flats of the Rann of Kachchh in check.
- Affects the nesting success of birds as it produces less oxygen and more carbon dioxide.
- Causes drying up of water bodies and ground water as it absorbs more than 4 litres of water to obtain one kg of biomass.
- Causes stomach poisoning in livestock by inducing a permanent impairment of its ability to digest cellulose.

Lantana camara

- Lantana camara is a small perennial shrub, which forms extensive, dense and impenetrable thickets.
- It is native to Central and South America.
- It is an invasive species which was introduced in tropical regions as an ornamental plant (introduced in India in 1807).
- The thickets covered vast tracts of land, stopping the natural light and nutrition for other flora and fauna.



- The toxic substance in its foliage and ripe berries affected the animals.
- It has also invaded various wildlife reserves, river banks and the Project Tiger areas.
- In some regions, the plant has invaded pastures and shrunk the cattle grazing areas, affecting the livelihood of villagers.



Mission Lantana

• It was a special drive to uproot the invasive lantana bushes in the famous





Sajjangarh wildlife sanctuary in Rajasthan's Udaipur district.

- It was a month-and-a-half-long campaign accompanied by the plantation of native species on the cleared patches of land.
- The drive involved collective efforts and 'shram daan' (voluntary physical work) by the forest officials, police personnel, wildlife lovers, representatives of voluntary groups and local villagers.

Water Hyacinth

- Water hyacinth, also known as, Eichhornia crassipes, is an aquatic weed common in waterbodies across South Asia, including India.
- This is not an indigenous species but was introduced to India during British colonial rule as an ornamental aquatic plant from South America.
- The plant produces beautiful purple flowers that have high aesthetic value.
- Aka the terror of Bengal.







UPSC 2023 CURRENT AFFAIRS PROGRAM



Daily Video Lectures, 6 Days a week

Subject-wise and Topic-wise Discussion

Daily PDF and Monthly Compilations

Relevant PYQ Discussion



UPSC 2024 CURRENT AFFAIRS PROGRAM



Daily Video Lectures, 6 Days a week

Subject-wise and Topic-wise Discussion

Daily PDF and Monthly Compilations

Relevant PYQ Discussion

