



Invasive Species in Gulf of Mannar Islands

Why in News?

A recent study has revealed that the native vegetation and biodiversity in the [Gulf of Mannar](#) are under threat from an [alien invasive plant](#), **Prosopis chilensis**.

- In addition, the [coral reef](#) has been destroyed in several places despite being outlawed for industrial purposes, and human settlements have impacted some islands.

What are Invasive Species?

▪ About:

- An [invasive species](#) is an organism that is not indigenous, or native, to a particular area and causes harm to the native species.
 - They are **capable of causing extinctions of native plants and animals**, reducing **biodiversity**, competing with native organisms for limited resources, and altering habitats.
- They can be **introduced to an area by ship ballast water**, accidental release, and most often, by people.

▪ About **Prosopis Chilensis**:

- The Chilean mesquite (*Prosopis chilensis* (Molina) Stuntz) is a small to medium-sized legume tree and has a shallow and spreading root system.
 - It is a common ruderal weed, either growing singly or in groups
- It is found in **arid and semi-arid regions with ground water of between 3 and 10 m** below the surface.
 - It is a drought-resistant plant native to **South American countries namely Argentina, Bolivia, Chile, and Peru**.

▪ International Instruments and Programmes on Invasive Species:

◦ [Convention on Biological Diversity \(CBD\)](#):

- It was one of the key agreements adopted at the 1992 Earth Summit in Rio de Janeiro.
- The Rio de Janeiro Convention on Biodiversity (1992) had also **recognised the biological invasion of alien species of plants** as the second-worst threat to the environment after habitat destruction.

◦ [Convention on the Conservation of Migratory Species \(CMS\) or Bonn Convention \(1979\)](#):

- It is an intergovernmental treaty that aims to **conserve terrestrial, marine and avian migratory species throughout their range**.
- It also aims to **control or to eliminate already present invasive alien species**.

◦ [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#):

- It is an international agreement adopted in 1975 that aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival.
- It also considers the **problems of invasive species when it is involved in trade and threatens the survival of live animals or plants**.

- **Ramsar Convention (1971):**

- The [Ramsar Convention on Wetlands of International Importance](#) is an international treaty for the conservation and sustainable use of wetlands.
- It also addresses the **environmental, economic and social impact of invasive species on wetlands** within their jurisdictions and to take account of the methods of control and solutions for combating invasive species.

- **Gulf of Mannar:**

- It is an **inlet of the Indian Ocean**, between southeastern India and western Sri Lanka.
- It is bounded to the northeast by **Rameswaram (island), Adam's (Rama's) Bridge (a chain of shoals), and Mannar Island**.
- It receives several rivers, including the Tambraparni (India) and the Aruvi (Sri Lanka).
- The gulf is noted for its **pearl banks and sacred chank** (a gastropod mollusk).

- **Gulf of Mannar Biosphere Reserve (GoMBR):**

- The [GoMBR](#) is home to **21 islands** that serve as habitats for coastal birds migrating as far as the Arctic Circle.
 - It is India's first marine biosphere reserve.
- **Most of the islands have [sand dunes](#) along their coastlines** with salt-dominant plant species.
- **"Corals, seagrass, and [mangroves](#)** are among the three unique ecosystems present on the islands



[Source: TH](#)