Environment & Ecology · GS - III

Explain how the management of invasive alien species contributes to biodiversity conservation and ecosystem restoration.

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 23/10/2026	GS - III	Environment & Ecology

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Invasive alien species, native biodiversity, island ecosystems, trophic interactions, seabird colonies, nutrient cycling, ecological restoration.

Model Answer

Introduction:

Invasive alien species can disrupt ecological balance by preying on native species, competing for resources and altering habitats.

Main Body:

Impacts of invasive species

1. Native species decline: Rats prey on seabird eggs and chicks, threatening vulnerable island populations.
2. Food-web disruption: Changes in predator-prey relationships affect ecosystem stability.
3. Nutrient-cycle disruption: Declining seabird populations reduce the transfer of marine nutrients to islands and surrounding ecosystems.

Role of eradication and control

1. Removing invasive predators can enable native species to recover.
2. Seabird recovery can improve nutrient circulation between land and sea, potentially benefiting coral reef ecosystems.
3. Monitoring and biosecurity measures help prevent reinvasion.

Challenges:

Eradication requires careful planning to avoid harming non-target species.

Long-term monitoring is necessary to assess ecological recovery.

Conclusion:

Evidence-based invasive-species management is an important tool for restoring biodiversity, strengthening ecosystem resilience and conserving fragile island environments.

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