Geography · GS - I

Enumerate the problems and prospects of inland water transport in India.

EXAM YEAR	PAPER	SUBJECT
2016	GS - I	Geography

MARKS	WORD LIMIT
15	~250 words

Answer Hint

Navigable waterways; low transport cost; National Waterways; infrastructure deficits; seasonal variations; dredging; multimodal connectivity; sustainable logistics

Model Answer

Introduction

Inland water transport (IWT) uses rivers, canals, backwaters and other navigable waterways to transport passengers and cargo. Given India's extensive river systems, it offers an opportunity to develop a cost-effective and comparatively energy-efficient transport network.

Prospects

- **Lower transport costs:** Waterways can be economical for bulk goods such as coal, cement, foodgrains and construction materials.
- **Energy efficiency:** Water transport can consume less fuel per tonne-kilometre than road transport under suitable operating conditions.
- **Reduced road congestion:** Shifting suitable freight to waterways can reduce pressure on highways and railways.
- **Regional connectivity:** Waterways can improve access to remote and riverine communities.
- **Economic development:** Terminals, logistics facilities and water-based tourism can generate employment.
- **Policy support:** The National Waterways Act, 2016 designated 111 national waterways, creating a framework for developing viable routes.

Major Problems

- **Seasonal variability:** Low water levels during dry periods and floods during monsoons affect navigability.
- **Insufficient infrastructure:** Many routes lack modern terminals, cargo-handling facilities and reliable navigation aids.
- **Dredging and sedimentation:** Shifting river channels and sediment accumulation increase maintenance requirements.
- **Inter-state and transboundary issues:** Coordination over rivers and cross-border waterways can complicate development.
- **Ecological concerns:** Poorly planned dredging and infrastructure may disturb aquatic habitats and river ecosystems.
- **Connectivity gaps:** Limited integration with road, rail and industrial centres reduces the reliability of end-to-end transport.
- **Commercial constraints:** Uncertain cargo volumes, financing needs and limited vessel availability can affect viability.

Way Forward

Develop priority waterways based on cargo potential, maintain adequate depth where feasible, improve multimodal links and modernise terminals. Environmental impact assessments and community consultation should guide projects.

Conclusion

Inland water transport can diversify India's logistics network and reduce freight costs, but success depends on reliable navigability, commercial viability, multimodal integration and ecological safeguards.

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