Q.1 Examine the significance of highways and waterways for agricultural supply chains in India. Do you think India's current road infrastructure has been sufficiently tapped in this regard? Critically examine.

Approach

Start with basic intro on agriculture SCM, and highlight the significance of road transportation mainly and also try to give example of waterways for agriculture and as per demand examine the existing infrastructure.

Introduction

An agriculture supply chain system involves mode of transportation that are responsible for the distribution of vegetable/Fruits/Cereals/Pulses or animal-based products. Mostly flow if goods are done through road and rail transportation in India.

Body

Significance of highways and waterways for agricultural supply chains in India:

- For the distribution of agriculture items, road transport has crucial role to play
 as it is the chief means of transporting the agricultural goods from the farms
 to local markets and also to several urban locations.
- Rivers are a natural highway which does not require any cost of construction and maintenance carrying agriculture goods at large scale in Ganges and Brahmaputra rivers has huge potential.
- Both road and water route infrastructure support producers, agripreneurs and agricultural micro, small and medium enterprises (MSMEs) in their production value chain are central to the transition.
- Better transportation services generate improved agricultural income as well as fruitful employment. A planned network of roads helps to minimize the transport cost, boost the delivery of farming material and improves special agricultural production as well as distribution.
- With effective road and water route highways agricultural markets, APMC, warehouse, food processing units and cold storages can be integrated for the national agriculture market will be beneficial for e-NAM and e-commerce in both B2B and B2C markets.
- Hence, if the road services in the rural area are good, it will greatly impact the farmers' productivity, employment, income and also decreases the poverty. Therefore, need to build robust road infrastructure from existing one SCM of agriculture.

Current poor transportation and lack of multi-modal linkages leads to delay in procuring perishable items and thus leads to losses:

 National highways in India account for only 2% of the total road network but transport 40% of all cargo. Although waterways capacity is increasing, a lack of connectivity to these ports causes cost increases and delays in the transfer of goods.

- Most roads in the rural areas are Kutcha (bullock- cart roads) and become
 useless in the rainy season. Under these circumstances the farmers cannot
 carry their produce to the main market and are forced to sell it in the local
 market at low price.
- If transport services are not common, cheap quality or costly then agriculturalists will be at an inconvenience when they try to sell their crops. An expensive service will naturally lead to low farm gate prices (the net price the farmer receives from selling his produce).
- The seasonally blocked routes or sluggish and irregular transport services, together with unsatisfactory storage, can actually lead to high losses as specific items such as milk, fresh vegetables, tea, get worse quickly after a while.
- In case the agricultural products are moved through bumpy road network, then several other crops such as mangoes & bananas might also suffer losses from staining. This also shows up in reduced rates to the agriculturalist.

Conclusion

The supply chain in agriculture is affected by several issues owing to the infrastructure deficit. Government needs to build capacity with warehousing, cold storage, packaging, metalled or pucca road with efficient transport system to reduce distress of farmers.

Q.2 Expanding India's current port infrastructure has immense strategic value. Do you agree? Substantiate.

Approach

Candidates can start the answer by writing on Indian ports and its importance for trade and security. In the main part of answer write about how port infrastructure can give India strategic value in IOR and greater global connectivity.

Introduction

Ports infrastructure is key to the development of any nation. India needs to modernize its ports with operational efficiency to achieve greater global engagement and for maritime security.

Body

Ports and shipping industry in India is critical to the country's Strategic value:

 Ensure the security of strategic installations: Port development will result in the development of India's coasts, which are home to a number of strategic installations such as naval bases, nuclear power plants, and satellite and missile launching ranges.

- Curtailing transnational organized crime at sea: India is vulnerable to narcotic
 drug trafficking because it is between the world's two main opium-producing
 regions, the Golden Crescent (Iran, Afghanistan, and Pakistan) to the west and
 the Golden Triangle (Myanmar, Thailand, and Laos) to the east.\Such illegal
 practices would be curtailed by port expansion and proper management of
 port resources, ensuring the safety of communication sea lanes (SLOC).
- Regional integration: South Asia is one of the least integrated regions in the world, and India's eastern seaboard can help recreate an integrated hub and spoke model for regional connectivity in the Bay of Bengal.
- Countering the influence of China: China has aggressively exacerbated India's pre-existing Sri Lanka-linked trans-shipment problem through its Belt and Road Initiative. China holds a 99-year lease on Sri Lanka's Hambantota port. As a result, port expansion and local trans-shipment facilities are critical strategic requirements for India.
- Net Security Provider in the IOR: Many western countries are hedging on India's ability to counter China in the IOR. India could hedge on their support to realize its ambition of Net Security Provider in the IOR by enhancing its coastal security and ensuring port modernizations and its connectivity with the hinterland.
- Environment: The Indian Ocean is warming three times faster than the Pacific Ocean. Overfishing, coastal degradation, and pollution are also harming the marine ecosystem. Hence, good design and sound environmental impact management of construction and operational activities of the port are critical.

Challenges faced by the Port infra in India:

- Infrastructure Bottleneck: Indian ports are plug with the lack of capacity and low productivity. The high turnover time and freight costs make Indian ports less competitive.
- Logistics Bottleneck: The port productivity and efficiency also depend upon the quality and reliability of road and rail connectivity, and adequate storage and handling facilities.
- Technology Bottleneck: Major international ports are using advanced innovations and information technology to change the way goods are transported between port terminals.

Conclusion

Maritime security and port infrastructure will play a vital role in achieving a robust economic growth and strategic upper hand in the IOR. Thus, the Government has to support the development of world-class port infrastructure in India to make Indian ports globally competitive.

Q-3- How do multilateral organizations like world bank and ADB finance developmental initiatives in developing countries ?Explain .

Approach -

In this question candidate need to write about how multilateral organizations like world bank and ADB finance developmental initiatives in developing countries.

Introduction -

ADB and the World Bank operate within a broad, evolving, and increasingly complicated global aid architecture. Both organizations finance developmental initiatives in many developing countries.

Body-

The World Bank is a global organization dedicated to providing funding, advice, and analysis to developing nations to help their economic advancement.

- ADB was established in 1966 "to foster economic growth and co-operation in the region of Asia and the Far East ... and to contribute to the acceleration of the process of economic development of the developing member countries in the region, collectively and individually.
- Its initial focus was on food and rural development projects but it quickly diversified its operations to include education, health, and infrastructure development.
- It was during this period that ADB made poverty reduction its key objective. Starting with 31 members in 1966, ADB now has 67 members, of which 48 are from Asia and the Pacific and 19 are from outside this region (ADB Annual Reports various issues).
- The World Bank was created in 1944 to extend finance for the reconstruction of Europe following the Second World War and subsequently to overcome obstacles facing developing countries trying to access international capital for development purposes.
- IBRD and IDA constitute the core of the World Bank Group and provide financial and technical assistance for development in low- and middle-income countries through a suite of loans and grants across the entire range of development
- challenges facing poor countries including health, education, infrastructure, agriculture, public administration, macroeconomic management, institutional development, governance, financial and private-sector development, environmental protection, and natural resource management (World Bank Annual Reports various issues).
- Both the World Bank and ADB are actively involved in every low- and middle-income country in Asia and the Pacific, except North Korea and Myanmar—although in Myanmar, the two institutions have begun to assess the economic situation and provide broad policy advice.
- There is a similar overlap in sect oral involvement. To make loans and equity investments for the economic and social development of its developing member countries.
- To provide for technical assistance for the preparation and implementation of development projects and advisory services.

How world bank disburse loans -

- The Bank borrows the money it lends. It has good credit because it has large, well-managed financial reserves. This means it can borrow money at low interest rates from capital markets all over the world to then lend money to developing countries on very favorable terms
- Bank loans work similarly to personal loans you get from online lenders: After you apply, the bank will review your credit score, history and income to determine how much money to loan you and what annual percentage rate you qualify for.
 Once you get the loan, you'll pay it back in monthly installments.
- The ADB and the World Bank both make the quickest disbursements, whether
 crisis-specific or not, primarily in the form of budget support. Relative
 disbursement rate, which tracks the relative rate at which a given commitment
 disburses, was highest for program and policy-based lending (PBL) instruments at
 ADB, and for Development Policy Loans (DPLs) at the World Bank.
- To respond to the request for assistance in coordinating developmental policies and plans in developing member countries.
- Notwithstanding their similar objectives and overlapping responsibilities, coordination between the World Bank and ADB in Asia is not a simple matter.
- A World Bank project currently under preparation will help the social registry
 evolve to reflect the changing circumstances of the poor, including a localized
 automated system for people to easily and frequently update their data and allow
 that data to flow into support programs. Mobile technology and big data analytics
 will assess needs and determine eligibility. The outcome will be a more dynamic
 registry that remains up to date and ready to respond to crises.

World banks recent projects in India -

- The development objective of Maharashtra Project on Climate Resilient Agriculture Project for India is to enhance climate-resilience and profitability of smallholder farming systems in selected districts of Maharashtra. This project has four components.
- The first component, Promoting Climate-resilient Agricultural Systems, aims to strengthen the adaptive capacity of smallholder farmers to adjust and modify their production systems to moderate potential future impacts from climate events.
- ADB is also setting up a policy research unit that will use evidence-based information to continue fine-tuning and improving social protection systems.
- A \$500 million loan will help improve mobility in Bengaluru city through a metro rail project, and a \$350 million loan will accelerate policy action to expand access to water, sanitation, and affordable housing.
- ADB also extended a \$251 million loan to strengthen flood-risk management in Chennai's urban areas. Other urban projects will support affordable housing in Tamil Nadu and improve urban services in Jharkhand, Tripura, and Uttarakhand.

Conclusion-

As developing countries face tough economic times, the World Bank and ADB has supported uncountable initiatives to expand opportunity and provide much-needed services to the poor, such as improving education and health services, promoting the

private sector, constructing infrastructure, and strengthening governance and institutions.

