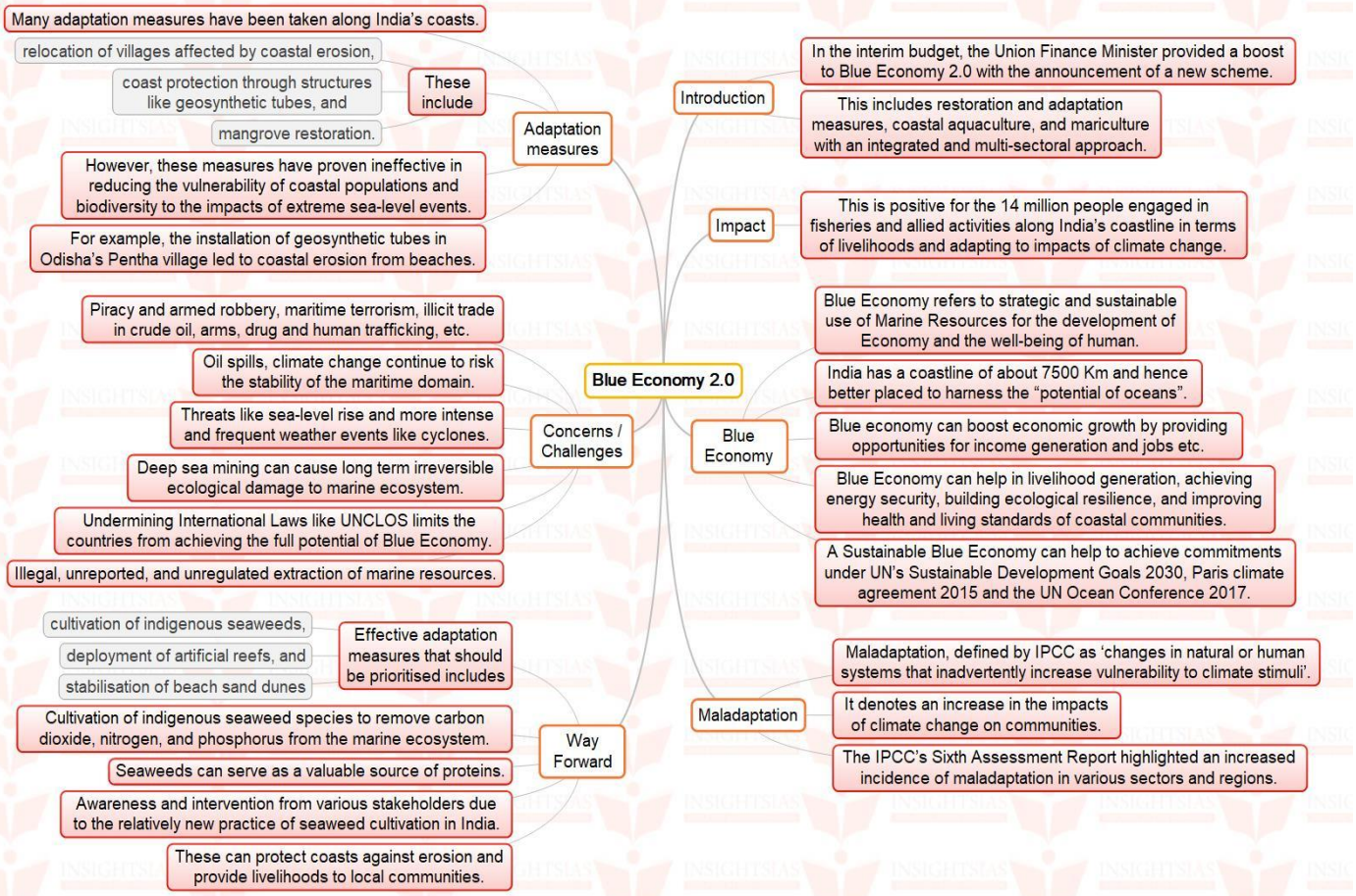

General Studies-3; Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

Blue Economy 2.0

Introduction

- In the interim budget, the Union Finance Minister provided a boost to Blue Economy 2.0 with the announcement of a new scheme.
- This includes **restoration and adaptation measures, coastal aquaculture, and mariculture with an integrated and multi-sectoral approach.**

Impact

- This is positive for the 14 million people engaged in fisheries and allied activities along India's coastline in terms of livelihoods and adapting to impacts of climate change.

Blue Economy

- **Blue Economy refers to strategic and sustainable use of Marine Resources for the development of Economy and the well-being of human.**
- India has a coastline of about 7500 Km and hence better placed to harness the "potential of oceans".
- Blue economy can boost economic growth by providing opportunities for income generation and jobs etc.
- Blue Economy can help in livelihood generation, achieving energy security, building ecological resilience, and improving health and living standards of coastal communities.

- A Sustainable Blue Economy can help to achieve commitments under UN's Sustainable Development Goals 2030, Paris climate agreement 2015 and the UN Ocean Conference 2017.

Maladaptation

- Maladaptation, defined by IPCC as 'changes in natural or human systems that inadvertently increase vulnerability to climate stimuli'.
- It denotes an increase in the impacts of climate change on communities.
- The IPCC's Sixth Assessment Report highlighted an increased incidence of maladaptation in various sectors and regions.

Adaptation measures

- Many adaptation measures have been taken along India's coasts.
- These include
    - relocation of villages affected by coastal erosion,
    - coast protection through structures like geosynthetic tubes, and
    - mangrove restoration.
- However, these measures have proven ineffective in reducing the vulnerability of coastal populations and biodiversity to the impacts of extreme sea-level events.
- For example, the installation of geosynthetic tubes in Odisha's Pentha village led to coastal erosion from beaches.

Concerns / Challenges

- Piracy and armed robbery, maritime terrorism, illicit trade in crude oil, arms, drug and human trafficking, etc.
- Oil spills, climate change continue to risk the stability of the maritime domain.
- Threats like sea-level rise and more intense and frequent weather events like cyclones.
- Deep sea mining can cause long term irreversible ecological damage to marine ecosystem.
- Undermining International Laws like UNCLOS limits the countries from achieving the full potential of Blue Economy.
- Illegal, unreported, and unregulated extraction of marine resources.

Way Forward

- Effective adaptation measures that should be prioritised includes
    - cultivation of indigenous seaweeds,
    - deployment of artificial reefs, and
    - stabilisation of beach sand dunes
- Cultivation of indigenous seaweed species to remove carbon dioxide, nitrogen, and phosphorus from the marine ecosystem.
- Seaweeds can serve as a valuable source of proteins.
- Awareness and intervention from various stakeholders due to the relatively new practice of seaweed cultivation in India.
- These can protect coasts against erosion and provide livelihoods to local communities.