Climate Change Impacts

Why in news?

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According to recent research biggest impacts of climate change is likely to be felt along coastlines across the world.

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What are the recent findings on climate change impacts?

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- A new study by scientists of IIT Bombay has now concluded that the impacts of climate change on India’s coasts.
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- The Impacts are in terms of coastal sediment transport, shoreline erosion and overall coastal vulnerability, could be far worse than previously understood.
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- The amount and rate of erosion of coastlines is generally studied using data from the past and extrapolating the changes into the future.
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- One of the key variables the researchers relied on was projected wind-generated waves around Indian coastline.
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- Wind vectors influence wave height as well as direction, and also the currents that in turn affect the rates of coast sediment transport and erosion.
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What are the concerns for India’s coastline?

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- With a nearly 7,500-km coastline, India has a lot to worry, but sea-level rises around the Indian coastline are likely to be relatively small compared

to many other regions.
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- Climate change can erode coastline more intensely than ever rising sea levels.
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- It is likely to reshape the coastlines and potentially inundate or even submerge many low-lying areas.
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- Potential climate-change impacts on five Indian beaches and found that the rates of transport and erosion could be much higher than estimated.
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What will be the impacts of climate change?

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- Different locations would face different kinds of impacts, Local geo-morphology as well as factors like whether the coastline is uninterrupted or is interspersed with barriers like harbours or river-mouths play a role.
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- Winds are likely to intensify and there is likely to be greater attack on beaches and coasts in the future than so far imagined, this will lead to a greater vulnerability of the coastline.
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- This can have far-reaching implications for the efforts to safeguard of coasts.
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What measures needs to be taken?

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- Based on projected data and using new and sophisticated climate models, require to be undertaken for a better assessment of the potential impacts.
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- To address this India is in the process of preparing a comprehensive vulnerability map of its coastline, which will be used to finalise a coastal zone management plan.
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Source: The Indian Express

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