

# Monitoring long-term changes

querying global data

Google Earth Engine

FAQ TIMELAPSE DATASETS CASE STUDIES PLATFORM BLOG SIGN UP

The screenshot shows the Google Earth Engine web interface. At the top, the 'Google Earth Engine' logo is on the left, and navigation links (FAQ, TIMELAPSE, DATASETS, CASE STUDIES, PLATFORM, BLOG, SIGN UP) are on the right. The main area is a satellite map of Dalian, China, with a search bar at the top left. A scale bar (5 km / 2 mi) is in the bottom left. A timeline at the bottom shows years from 1984 to 2016, with a play button and a 'Medium' resolution indicator. A 'Share or Embed' button is in the bottom right.

Timelapse

Share or Embed

Timelapse is a global, zoomable video that lets you see how the Earth has changed over the past 32 years. It is made from 33 cloud-free annual mosaics, one for each year from 1984 to 2016, which are made interactively explorable by [Carnegie Mellon University CREATE Lab's](#) Time Machine library, a technology for creating and



# Better physics for coastal dynamics

## Sediment transport

- Sediments are moved about more in **shallow water** than in deep water:
  - surface waves can affect the sea-bed
  - tidal currents are stronger in shelf seas than in the open ocean, due to increased tidal ranges
- Sediment transport and deposition are also more easily studied in shallow water **but the principles governing these processes are as valid in the deep ocean as they are in any estuary or beach or anywhere else where there is moving water!**