

# **Sea Warming and Shipping Routes**

#### What is the issue?

 $n\n$ 

\n

• A cargo vessel had recently passed through the Russian Arctic on a trial journey as a result of melting sea ice.

• This is more an indication of emergence of new shipping routes as global warming continues.

\n

 $n\$ 

#### What was the trial?

 $n\n$ 

\n

• A P Moller-Maersk is the world's biggest shipping group.

\n

• It had one of its cargo vessels pass through the Russian Arctic on a trial journey.

\n

• The ship arrived in St Petersburg on the Gulf of Finland after leaving Vladivostok on the North Pacific.

\n\n

## How is the Arctic changing?

 $n\n$ 

\n

• Climate change is resulting in parts of the Arctic warming up to 100% faster than elsewhere.

\n

• The extent of sea ice covering the Arctic Ocean has declined in every decade since the 1980s.

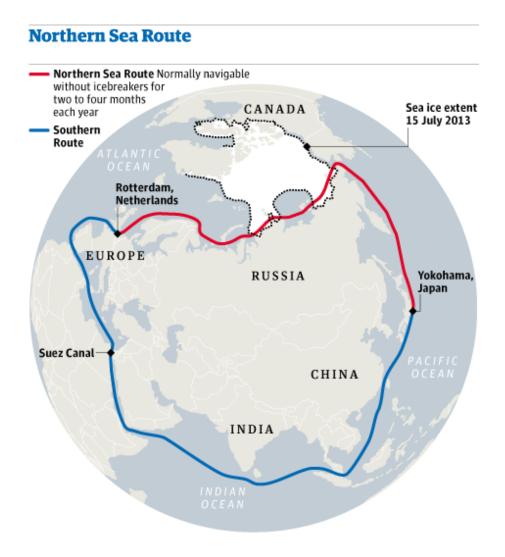
۱n

• There is evidence that ancient, thick ice is disappearing as well.

\n

- The average Arctic sea ice volume was 3,302 cubic miles (or more than 13,750 cubic km) between 1985 and 2000.
- This is expected to fall to an average of 1,480 cubic miles between 2015 and 2030 under a moderate emissions scenario.
- It could well come down to just 737 cubic miles (3,000 cubic km) on average between 2045 and 2060.  $\$

 $n\n$ 



 $n\n$ 

### What is the emerging scenario?

 $n\n$ 

\n

• The world is likely on the cusp of a shipping revolution as a consequence of climate change.

\n

\n

• "Middle of the road" warming is a warming phenomenon higher than the 2015 Paris Climate Accord target but lower than the most extreme forecasts of climate change.

\n

Resultantly, as sea ice reduce decade on decade, it will open up vast swathes
of the Arctic Ocean.

۱n

• The ships may, by the middle of this century, be able to pass directly over the North Pole.

\n

• The route from the north of Russia to the north of Canada can be taken at least for some weeks in the summer-fall.

\n

• The Northern Sea Route could potentially cut the travel distance between East Asia and Western Europe.

\n

 $\bullet$  It could bring down the distance from 21,000 km to just 12,800 km, and the journey time by 10-15 days.

\n

• The current route is via the Malacca Strait, Indian Ocean, Gulf of Aden and Suez Canal.

\n

• As voyage times fall significantly, shipping could become more attractive in north than the southern routes.

\n

• Shipping activity in the region is thus likely to increase significantly over the next decade.

۱n

• It is also aided by the fact that Russia is likely to develop oil and gas fields in Siberia.

\n

 $n\n$ 

# What is the challenge?

 $n\n$ 

\n

- $\bullet$  Costs will be a major consideration towards the above transformation.  $\mbox{\sc h}$
- Reportedly, Trans-Arctic shipping by ordinary vessels between Europe and Asia is unlikely to become economically viable before 2040.

- So the Northern Sea Route is currently not a viable commercial alternative to existing east-west routes.
- $\bullet$  Also, Arctic ice conditions will still vary greatly from year to year.  $\ensuremath{\backslash} n$
- $\bullet$  The passage is only feasible for around three months a year. \n
- $\bullet$  This could discourage shippers for whom keeping to schedules is important.  $\mbox{\ensuremath{^{\mbox{\sc h}}}}$
- $\bullet$  Increased insurance costs and safety considerations are other deterrents.  $\ensuremath{^{\backslash n}}$

 $n\n$ 

 $n\n$ 

### **Source: Indian Express**

\n

