

The Nord Stream Pipeline Leaks

Why in news?

Four leaks were reported (two in Swedish waters and 2 in Danish waters) in Nord Stream pipelines linking Russia and Europe.

What is Nord Stream Pipeline?

- Owned by the Russian energy giant, Gazprom, Nord Stream Pipeline is the longest subsea pipeline.
- It is an export gas pipeline that runs under the Baltic Sea carrying gas from Russia to Europe.
- The gas for Nord Stream comes mainly from the Bovanenkovo oil and gas condensate deposit in Western Siberia.
- Nord Stream consists of two pipelines, which have two lines each.
 - Nord Stream 1 that runs from Vyborg in Russia to Lubmin in Germany was completed in 2011.
 - Nord Stream 2 that runs from Ust-Luga in Russia to Lubmin in Germany was completed in 2021.
- Both the pipelines together can transport a combined total of 110 billion cubic metres of gas a year to Europe for at least 50 years.
- The Nord Stream crosses the Exclusive Economic Zones (EEZs) of several countries including Russia, Finland, Sweden, Denmark and Germany, and the territorial waters of Russia, Denmark, and Germany.
- While both pipelines are not currently running commercially, they had millions of cubic metres of gas stored in them.

New leak found in Russian gas pipelines

Sweden has found a new leak in undersea pipelines carrying Russian natural gas to the EU, making it the fourth discovered so far. NATO says the incidents are the result of “acts of sabotage”



What is the current leak about?

- Two leaks were detected on the Nord Stream 1 pipeline, both in an area northeast of the Danish island of Bornholm.
- Sweden had reported two separate underwater explosions, very close to where the leaks occurred.
- **Possible causes of the leak-** The investigations have not yet revealed the cause behind the leaks.
- Possible causes range from technical malfunctions to a lack of maintenance, to even possibly sabotage (deliberate damage or destruction of equipment or property which belongs to the enemy).
- The European Union (EU) and North Atlantic Treaty Organisation (NATO) called the leaks acts of sabotage.
- Russia, which controls the pipeline, has not ruled out sabotage either.
- Ukraine said the leaks were likely the result of a terrorist attack carried out by Russia.
- Various European countries, such as Sweden and Denmark, have launched separate investigations into the matter.

What will be the impact of the leaks?

- **Economic impact-** European gas prices immediately spiked after the reports of the leaks emerged.
- As a result of the leak, all the stored gas is escaping.
- The pipelines are unlikely to provide any gas to Europe through the forthcoming winter months.
- Depending on the intensity of the damage caused by these ruptures, permanent closure of the Nord Stream lines was also a possibility.
- **Environmental impact-** Methane is a large component of natural gas and is also a

potent greenhouse gas.

- It is the second-largest contributor to climate change after CO₂.
- **Other impacts**- Vessels could lose buoyancy if they enter the area, and there might be a risk of leaked gas igniting over the water and in the air.

What steps can countries take to protect their critical infrastructure?

- The Nord Stream incident shows the importance of surveillance, and making sure countries know which boats and submarines are around the pipeline.
- The steps involves
 - Building more protective pipes that can withstand intrusion
 - Controlling access to pipelines
 - Monitoring them
 - Intercepting potential attacks

References

1. <https://www.thehindu.com/news/international/explained-the-nord-stream-pipeline-leaks-what-happened-and-what-is-at-stake/article65950516.ece?homepage=true>
2. <https://www.npr.org/2022/10/03/1126517181/nord-stream-pipeline-leaks-protecting-critical-infrastructure>
3. <https://www.aljazeera.com/news/2022/9/27/qa-what-is-known-so-far-about-the-nord-stream-gas-pipeline-leak>

