



Sector characteristics

Cables and pipelines

In all sea basins, countries are connected by numerous submarine telecommunication and electricity cables. Electricity cables also transport energy between offshore wind farms and from offshore wind farms to the mainland.

Regional Seas also contain pipelines which transport oil or gas between countries or from platforms to the coast.

Cables are usually buried, but can shift and become unburied.

Disruption of cables and pipelines has serious consequences. Repairs costs are usually very high.

Commercial fisheries

Fishers mostly hunt shoals which move between different food-rich areas. Fishing vessels therefore move in unpredictable ways and unlike other vessels making use of shipping lanes.

Bottom trawling is the most common fishing method. Some bottom trawling techniques are also the most likely to cause serious damage.

Damage to underwater cables and pipelines can occur through hooking, anchors being dropped or vessels (including non-fishing vessels) stranding on them. Hooking can also affect the vessel itself, in severe cases causing it to capsize.

Conflict description

Hooking

Damage to cables or pipelines occurs from pulling fishing gear over them, or from fishing gear getting stuck underneath. Long stretches of cable or pipeline may be affected, and they may be moved or dragged along. In the worst case breakages occur.

Vessels stranding on a pipeline

This could happen in the case of an accident. A direct hit affects the outer protective layers of the cable or pipeline, causing corrosion. Anchors being dropped directly onto a cable or pipeline can also cause localised damage. Further damage can occur if the anchor is moved and hooks the cable or pipeline.

Spatial restrictions for fishers

Fishers cannot cross cables and pipelines while fishing. They either need to lift their gear to cross them (which is time consuming) or find alternative fishing grounds or routes to fishing grounds.

Drivers of conflict

“Digital and energy union”

New telecommunication cables, new gas pipeline corridors, and the drive towards an offshore grid for electricity cables are important drivers of development.

Transnational electricity grids

EU policy is supporting the development of a transnational electricity grid, leading to an increase in the number of electricity cables crossing the seas. More electricity cables connecting to the mainland will also result from the growth of offshore wind farming.

Lack of alternative gear

In the case of bottom trawling, alternative gear may not be available or conversion expensive. Even new type of gear can still cause damage.

Possible solutions

Prevention

- 1 Develop corridors for cables and pipelines as part of an offshore grid plan
- 2 Use MSP to co-design suitable cable routes
- 3 Develop no-anchor zones in well-specified areas

- 4 Develop no trawl zones alongside cables and pipelines
- 5 Require cables and pipelines to cross shipping lanes by the shortest route possible
- 6 Require cable and pipeline companies to use appropriate burial methods.

Future trends

The number of cables criss-crossing sea basins is likely to increase due to offshore renewables and the development of international power grids. More telecommunications cables and pipelines may also be deployed.

If the idea of a European supergrid gains traction, a more coherent approach with more international links will result. This could lead to grid plans being developed for neighbouring sea areas which would then link up. This would lead to corridors and thereby also increase clarity for vessel users.

More environmentally friendly fishing practices may mean less bottom trawling as this has major environmental impacts, therefore reducing conflicts with cables and pipelines.

A separate trend is the improvement of ICT and communication tools. Mapping devices and sensors incorporated on vessels could depict a more accurate position of current cables and pipelines.