

"Security of critical energy and maritime infrastructure"

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Energy security, i.e. access to adequate, affordable and reliable energy supplies, has become a matter of growing concern in the Euro-Atlantic region, as most states rely on resources located abroad, often in faraway and unstable regions. At the NATO Riga Summit in 2006, allied governments have tasked NATO to consider its potential role in enhancing energy security collectively. The outcome was presented at NATO's Bucharest Summit in 2008, where Heads of State and Government agreed on a number of fields.

The threats addressed to the energy supply chain, referred to as critical energy infrastructure protection (CEIP), involve physical attacks against energy infrastructures through acts of terrorism and other forms of violence. CEIP does not examine disruptions connected to accidents and natural disasters, or political decisions made by supplier states-companies, such as supply reduction or cut-off, price increases, embargoes, etc.

The energy sector includes several infrastructures, all interdependent between them, for the extraction, production or generation of energy, infrastructures for land and maritime transport, for processing and refining, for storage and distribution.

Most countries are major net importers of energy, thus coming in the end of the energy chain. The United States imports approximately 60% of its oil. Europe imports half of its primary energy sources, and this figure is

expected to increase to more than 2/3 by 2030. This means that they are dependent on the whole series of energy infrastructures, which comes before them in the supply chain. Many of these are located abroad, i.e. the Middle East and the former Soviet Union. As a result, energy infrastructures that are critical for Europe and North America include not only major infrastructures on their territory, but also infrastructures located abroad, in the energy producing countries. For example, a major oil complex in Saudi Arabia, a gas pipeline in the South Caucasus or an LNG terminal in the Mediterranean are considered as critical energy infrastructure for the United States and Europe.

Infrastructures located in third countries are generally more attractive to terrorists, precisely because they come at the beginning of the supply chain, which means that an attack on these infrastructures would have major cascading economic effects both in the countries themselves and in Europe.

At the open sea, one scenario regularly debated is an attack on oil shipments in the Strait of Hormuz, very critical to global oil supply. Acts of piracy pose several challenges in relation to international shipments of energy. The number of acts of piracy off the coast of Somalia and the Gulf of Aden has prompted international attention, and led both NATO and the EU to directly get involved in the protection of vessels crossing the Gulf of Aden. Some experts have also raised fears of a nexus between terrorism and piracy.

A first potential target is oil tankers and secondly LNG carriers. Individual vessels as such cannot be considered as critical infrastructure, however, an attack on a tanker becomes a serious problem when it causes maritime traffic to be stopped for a long time and causes large losses of

oil and major pollution. This is the case in particular if an attack occurs at a major maritime chokepoint. The two main sites are the Straits of Hormuz and Malacca. Other important sites include the Suez Canal, the Bab el Mandeb, the Bosphorus Straits, Gibraltar and the Panama Canal.

Fixed infrastructure at sea, such as oil and gas platforms, terminals and pipelines, is also physically vulnerable to maritime attacks. However, there have so far been no cases of an attack against such an infrastructure, as security at these sites is usually very high, and approaching them without causing suspicion would be quite difficult.

The protection of LNG facilities is also a source of growing concern. No attack has so far been directed at an LNG facility or an LNG carrier. However, as an ever-greater number of countries turn to LNG to diversify their energy mix, LNG infrastructures become an increasingly attractive target for terrorists. The number of LNG terminals is also expected to increase significantly in the coming years, as well as the number of LNG carriers in the open seas.