COVID-19, war in Ukraine, climate change – how resilient are maritime transport chains?

The outbreak of the COVID-19 pandemic in early 2020, the blockage of the Suez Canal due to the Ever Given container ship in March 2021 and Russia’s attack on Ukraine in February 2022 have recently increased the prominence and research of logistics chain resilience issues. However, the focus is often on examining the respective events or certain specified risks in order to gain knowledge for comparable events in the future. Comprehensive analyses that include all assets and all risks, on the other hand, are rare. Therefore, ISL recommends the identification and protection of critical assets.

The COVID-19 pandemic, the subsequent demand surge, lockdowns in China the Russian invasion of Ukraine have put a strain on maritime transport chains around the world. At the same time, experts are warning of increasingly frequent and severe extreme weather events due to climate change. In this environment, research on the resilience of transportation chains has seen an upsurge. While existing studies focus on the impact of certain types of risks such as climate change or pandemics, ISL proposes a different approach. Given the diversity of possible risks, it is impossible to predict which event will hit maritime transport chains next. Therefore, ISL experts advocate an approach that focuses on the systematic identification and protection of critical assets. Four categories of assets are identified:

1. Infrastructure and superstructure
2. Transport means
3. Data flows
4. Organisational assets

The identification of critical assets shows that strategies to increase the resilience of maritime transport chains must involve a wide variety of actors from the maritime industry and public institutions. Cooperation is hence paramount for increasing the resilience of maritime transport chains and thus for protecting globalised economies from disruptive events.

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Risks for maritime transport chains due to climate change