

New report from TT Club and Haskoning warns urgent action needed to safeguard ports, waterways and global supply chains from climate threats

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The global supply chain will suffer as ports face ever-mounting threats from sea-level rise, extreme weather and shifting regulations, with billions of dollars in trade and infrastructure already at risk each year, according to a new report.

Developed by leading global transport and logistics insurer [TT Club](#), in collaboration with international engineering consultancy [Haskoning](#), the *Urgent Guidance for Ports, Waterways and Logistics Operations* report takes a deep dive into the potential consequences of climate change on ports, and includes a practical roadmap to strengthen climate resilience in maritime operations.

It sets out immediate measures and long-term solutions to safeguard infrastructure, maintain operational continuity and ensure economic stability in the face of climate change.

“Ports are the lifeblood of global trade, but they are also on the frontlines of climate change impact,” says **Marika Calfas, TT Club Board Member and CEO of NSW Ports**. *“At NSW Ports, we see first-hand the importance of building resilience into supply chain infrastructure and operations. This guidance provides practical steps for understanding climate risks, planning adaptive responses and embedding resilience into the core of business strategy.”*

The report draws on historical case studies, including the shutdown of Gulf Coast ports during Hurricane Katrina, and the \$12 billion in maritime damages from Japan’s 2011 tsunami, to evidence the severe economic and social impacts when resilience measures are inadequate.

“Climate change is no longer a distant challenge – it is a pressing operational reality,” explains **Neil Dalus, Risk Assessment Manager at TT Club**. *“Inaction could result in soaring repair costs, prolonged disruptions and lost revenue. Proactive adaptation, on the other hand, could deliver long-term savings, operational security and reputational benefits.”*

Nearly 90% of the world’s 3,700 major ports are exposed to damaging climate hazards¹. From hurricanes and flooding to heatwaves and shifting ocean currents, climate change

¹ [International trade and world economies exposed to multi-billion-dollar climate risk to ports - Oxford study](#)

is amplifying risks that threaten vital port assets as well as the global supply chains that depend on them. Data shows that extreme climate events are inevitable rather than hypothetical, and urgent action is therefore essential. Delaying action risks compounding damage and escalating costs; proactive planning today not only prevents significant losses but also secures long-term competitiveness and operational continuity.

Alongside the risks, the report also highlights opportunities. By leveraging real-time climate data, IoT-enabled monitoring and AI-powered predictive analytics, ports can improve asset performance, reduce downtime and strengthen emergency preparedness.

It concludes that investments in sustainable infrastructure, from renewable energy integration to natural barriers such as mangroves, can protect assets while improving operational efficiency and supporting decarbonisation goals. It points to examples including the Port of Long Beach's Coastal Resiliency Plan and the Port of Brisbane's advanced weather monitoring upgrades, where forward-thinking investment is already paying dividends.

Amy Savage, Technical Director of Climate Risk and Adaptation at Haskoning

comments: *"Climate adaptation should not be seen as a financial burden, but as a strategic investment in the long-term competitiveness of ports. By integrating engineering expertise with cutting-edge digital technologies, we can create adaptive, future-proof solutions that mitigate risks and unlock value throughout the supply chain."*

For a copy of the full report *Climate-Ready Supply Chain: Urgent Guidance for Ports, Waterways and Logistics Operations*, click the link [HERE](#)

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About TT Club

TT Club is a leading provider of mutual insurance and risk management services to the global transport and logistics industry. With a mission to enhance supply chain safety and security, TT Club supports more than 1,100 member organisations, including ports, terminals, shipping lines and logistics companies worldwide. Committed to promoting diversity, equity and sustainability, TT Club operates under the stewardship of Thomas Miller, and actively contributes to industry-wide environmental and governance initiatives.

www.ttclub.com

About Haskoning

Haskoning is an independent international consultancy that combines engineering, design and consultancy services with software and technology. Based on our mission *Enhancing Society Together*, we take responsibility for having a positive impact on the

world and contributing to the United Nations Sustainable Development Goals. Our 6,800 people are spread across offices in more than 25 countries worldwide – working together with clients on future-proof solutions. As of 1981 we are a Royal company, as designated by the Royal House of the Netherlands.

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