



# PIANC

The World Association for Waterborne  
Transport Infrastructure

## **Extreme weather impacts Valuing the consequences of inaction to make the business case for investment in resilient transport**

Presented by

*Jan Brooke, Chair*

*PIANC, Permanent Task Group on Climate Change*



# Extreme weather as a business risk

- Increased frequency/severity of extreme events will compound the impacts of slow-onset changes in air/water temperature, precipitation and sea level
- Ports are vulnerable to flooding; changes in wind, wave height/frequency; extreme heat; fog; and other more frequent conditions exceeding critical operational thresholds
- Extreme low/high flows reduce river navigability, increase inland port disruption
- Ports are vital transport nodes; integrally connected to trade networks. Extreme weather impacts can compromise infrastructure integrity; affect navigational safety; lead to downtime; disrupt business continuity; increase costs
- Cascading effects multiply quickly, impacting onward transport; energy or water supply; telecommunications; and ultimately supply chains



December 2024

INDUSTRY NEWS

# Notification: Update On Holyhead Port Closure

Published On: 9 December 2024

**Major service disruption at Holyhead Port with ferries cancelled after Storm Darragh**

There were reports of 'an incident' which caused 'damage to port infrastructure'



We regret to inform you that Holyhead Port was closed on Saturday morning and will remain closed until further notice due to ongoing operational issues.

The collapse of a fender on berth T3, including the concrete pile, platform, and connecting walkway, a full structural assessment is currently underway. During this time, the port will remain closed to all ships and vehicles.



# Written Statement: Welsh Government Update Following the Temporary Closure of Holyhead Port

Ken Skates, Cabinet Secretary for Transport and North Wales

In light of Tuesday's statement by Holyhead Port Authority, a [Joint Communique from the Welsh Government and the Irish Government](#) was issued.

Having received clarity from Stena that the Port of Holyhead will not reopen until 15 January at the earliest, following the damage sustained during Storm Darragh, the Welsh Government and our partners are urgently pressing ahead with contingency plans to minimise the impact on individuals and businesses.

The Cabinet Secretary for Economy, and I are working in close cooperation with our partners to ensure that freight and passengers can continue to travel as far as possible across the Irish Sea.

## Holyhead Port closure following Storm Darragh damage

[Home](#) > Holyhead Port closure following Storm Darragh damage

**⚠ Update: Holyhead port remains closed until further notice.**

Holyhead Port, one of the main gateways between the United Kingdom and Ireland, will remain closed until at least 15 January due to significant damage caused by Storm Darragh earlier this month.

### Contingency Routes

The government has put in place contingency routes for affected carriers, and businesses will need to review and select the appropriate routes on GVMS.

For those importing goods from Ireland to the United Kingdom, import declarations should continue as usual.

**Holyhead port to stay closed until mid-January disrupting Christmas ferry travel to Ireland**

Tens of thousands of travellers between Great Britain and the Republic face slower journeys and higher fares – over £500 for one Ryanair flight from Gatwick to Dublin

## Family face missing Christmas due to port closure



...staying in the UK or making a last-minute five-hour journey to catch a ferry

Rowenna Hoskin  
BBC News  
18 December 2024

**A young family are struggling with damage at the busiest port**

Cillian and Louise Kirwan, in Holyhead to Dublin on Sun's closure.

## Christmas trade disruption continues as Holyhead port closed for longer

By Mark England | 19 December 2024 14:46 GMT



Source: Getty Images  
Holyhead port is one of the main trade gateways between GB and Dublin, Ireland

# Christmas trade disruption continues as Holyhead port closed for longer



There were hopes the port – through which around 1,200 lorries and trailers make the journey from Wales to Dublin each day – would be open by Christmas, but passengers and businesses alike are now being advised to make alternative arrangements.

Ireland's national postal service had already dropped plans to use Holyhead port for Christmas deliveries.

Exclusive data from supply chain analyst Project44 shows a slump in movements of goods between Holyhead and Dublin, with only two roll-on/roll-off vessel services – which are ships designed to carry wheeled cargo including lorries – recorded on 9 December, versus 20 on 2 December, a 10 days before the storm.

Movements of container vessels, general cargo vessels and passenger services have all been stopped for weeks now, the data showed.

The prolonged closures will continue to severely affect logistics and ferry operations between the UK and Ireland, experts have warned.

The closure of the port and the Dublin-Holyhead ferry service means that approximately 100,000 people who were planning to use the route to travel to Ireland for Christmas will now have to make alternative arrangements.

## The Chair of the Welsh Affairs Committee has written to the Government asking how it will help support those affected by the closure of Holyhead Port.

- [Letter from the Chair to the Secretary of State for Business and Trade regarding the closure of the Port of Holyhead](#)
- [Welsh Affairs Committee](#)

This week it was reported that the port would be closed until 15 January at the earliest, following damage during Storm Darragh on 6 and 7 December.

In the letter, the Chair asks the UK Government for information on how it is supporting business and workers affected, and how it will help the port to return to business.


The closure comes at a critical time of year," she writes, "with additional goods moving between the Republic of Ireland and the UK to meet Christmas demands, and people travelling to see their loved ones."

"Local and national businesses face not only the additional cost of re-routing goods but also the potential loss of goods, for example perishable goods," the Chair adds. "While some producers and businesses will be able to reclaim some of their costs, there is no such support for the wider supply chain of Ynys Môn."

She also raises the issues of the many people living in Holyhead who rely on the port for work or income. If the port remains closed until 15 January, many of these people will face financial difficulties over the winter period.


The port, which sits in a key strategic location between the UK and Ireland, supplies the UK's second biggest ferry route. An average of two million passengers use Holyhead a year and around 1,200 lorries and trailers make the crossing every day.

# WG 178 guidance: a four-stage approach



**PIANC**

EnviCom WG Report  
n° 178 - 2020



**CLIMATE CHANGE ADAPTATION PLANNING  
FOR PORTS AND INLAND WATERWAYS**

The World Association for Waterborne Transport Infrastructure





## PIANC-PTGCC Technical Note No.2

WG 178 identified two main barriers to effective implementation:

- Dealing with **climate change uncertainties** (Technical Note No.1)
- Making the **business case for investment** in resilience (Technical Note No.2)

Technical Note No.2 supports port and waterway owners and operators in identifying what to include when they are making their own business case to adapt, by:

- Facilitating understanding of the consequences of inaction, and the type of analyses that can be used to quantify the potential benefits of investing in adaptation and climate resilience measures
- Exploring a wide range of other reasons that may help a port, waterway or facility make the business case for such investment





# Consequences of inaction

- Inaction has a cost. With climate change, these costs can increase significantly
- Inaction does not only refer to a failure to raise, strengthen, or modify infrastructure
- Inaction includes:
  - Failure to **maintain** existing infrastructure and systems
  - Failure to **monitor** to understand trends, support early warning, inform decisions
  - Failure to **assess** risks; failure to **plan**

*“Climate adaptation is a strategic move not a charitable act. It ensures resilience, risk management, and supply chain support in the face of the climate crisis. Governments, corporations, and impact investors [that] fail to incorporate climate adaptation measures into their strategies are not only missing out on returns, but also endangering their value chains”*





# What factors limit action to strengthen resilience?

- Lack of climate literacy/**information**/data
- Insufficient **finance**
- Inappropriateness of **business models** e.g. 5–10-year planning horizon for infrastructure with 30–100-year life span. If location/timing of hazards is uncertain, more immediate priorities may take precedence
- Lack of agreed, consistent **definitions**, metrics and design/engineering standards: concept of 'resilient investment' remains elusive
- Lack of awareness/acceptance of whether and when to transition from incremental to **transformational** change





# What factors motivate action to strengthen resilience?

- Existing motivations
  - **Response to** unprecedented event or more frequent extreme conditions
  - **Regulatory** compliance e.g. reporting; project authorisation processes
  - **Good practice:** reduce risks, KPIs, CSR targets
- Evolving initiatives
  - **Insurance** sector: how to avoid unaffordable premiums; denial of cover? Prevent/limit damage; demonstrate resilience; partnerships to manage risks
  - **Finance** sector: dedicated finance; bonds; taxonomies
  - Increased attention to climate-related **financial risk disclosure**





# Making the business case

- Climate change is a business risk. By reducing risk, adaptation action delivers multiple benefits, the so-called '**triple dividend**'
  - Adaptation action helps avoid or reduce economic losses
  - It brings positive gains through risk-reduction, safeguarding investment and enabling increased productivity
  - It delivers additional social and environmental benefits
- **Avoided** damage- and disruption-related **losses** represent a **key benefit** of investing in strengthened resilience
- BUT the '**triple dividend**' concept and the '**losses-avoided**' principle are not currently familiar to those involved in navigation investment decision-making





# Making the business case

- Climate change is a business risk. By reducing risk, adaptation action delivers multiple benefits, the so-called '**triple dividend**'
  - Adaptation action helps avoid or reduce economic losses
  - It brings positive gains through risk-reduction, safeguarding investment and enabling increased productivity
  - It delivers additional social and environmental benefits
- **Avoided** damage- and disruption-related **losses** represent a **key benefit** of investing in strengthened resilience
- BUT the '**triple dividend**' concept and the '**losses-avoided**' principle are not currently familiar to those involved in navigation investment decision-making

# Scoping the business case assessment

Green boxes: Climate change-related costs and losses incurred by port or waterway operator that could be avoided or reduced by investing in adaptation and strengthened resilience = 'losses-avoided' [5.7]

Costs associated with **physical damage**: repair; clean up costs; additional maintenance. Consider insured and uninsured losses [5.4]

Financial losses or additional costs associated with delays; **disruption**; port or waterway closure [5.4]

Financial losses or additional costs associated with damage, disruption or failures **elsewhere in system** [5.5]

Blue boxes: Other types of savings or 'costs-avoided' of potential relevance to business case

Access to and cost of **finance** (loans, grants or subsidies) with or without investment in resilience [5.8]

Access to and cost of **insurance** with or without investment in resilience [5.8]

Penalties associated with failure to meet **regulatory** requirements or **contractual** obligations [5.8]

**Business case for investment in adaptation and strengthened resilience**

Implications of damage and disruption (losses or additional costs) for **supply chains** and on wider economic or societal parameters [5.6]

Potential **opportunities** (shared costs, competitive advantage, demonstrate leadership) [5.9]





## No one-size-fits-all solution

- There is no one-size-fits-all solution to making the business case for strengthened resilience because there is no one-size-fits-all port or waterway
- The nature of an organisation, its **management** or **governance** model will influence both what should be included, and the appropriateness of different methods used to determine **return on investment**
- Some organisations must respond to the requirements of a **financial** institution; others will follow government guidance on **economic** analysis; private sector operators may be particularly concerned about **cashflow**, revenue programming and **budget** timescales
- Most organisations have competing priorities for **limited resources**





## Key messages

- Extreme weather is a significant but often unquantified/unrecognised **business risk**
- **Inaction** does not only refer to a failure to raise, strengthen, or modify infrastructure. Inaction includes failing to prioritise maintenance, to monitor, to assess risks and plan
- Damage and disruption-avoided is a key **benefit** of investment in resilience but the 'triple dividend' concept and the '**losses-avoided**' principle both remain unfamiliar
- **No one-size-fits-all solution** because there is no one-size-fits-all port or waterway

Download PIANC Technical Note No.2 on Scoping the Business Case at  
<https://www.pianc.org/publication/climate-change-costs-to-ports-and-waterways-scoping-the-business-case-assessment-for-investment-in-adaptation/>





# PIANC

The World Association for Waterborne  
Transport Infrastructure

*Thank you for your attention.*

For more information visit us at

[www.pianc.org](http://www.pianc.org)

