

The Climate and Ocean Risk Vulnerability Index

Coastal cities are at the forefront of the climate emergency. Rising sea levels, extreme weather events, and warming temperatures are amplifying the vulnerability of city residents. At the same time, many coastal cities are already grappling with underlying economic and social issues, such as inequality, employment in vulnerable industries, outdated infrastructure, and poor governance. Today an estimated 40% of the world's population live within 100 km of the coast. By 2050, 580 cities, home to 800 million residents, are expected to be at risk from rising seas and storm surges.

As these risks grow, climate change can act as a risk multiplier, exacerbating underlying social tensions and degrading the ability of city governments to effectively build resilience. While empirical data on the impacts of climate challenge continues to improve, gaps remain. Despite this, decision makers need information today that can help them prioritize actions and decisions.

In response, the Stimson Center has developed **CORVI: The Climate and Ocean Risk Vulnerability Index**, an innovative tool which compares a diverse range of risks to produce a **coastal city risk profile**. With this information decision makers can make smart investments to **build resilience** where it matters most.

CORVI Beneficiaries

In this environment, leaders need to better understand the impacts of climate change and integrate the climate fragility risks into their decision making to help prioritize action.

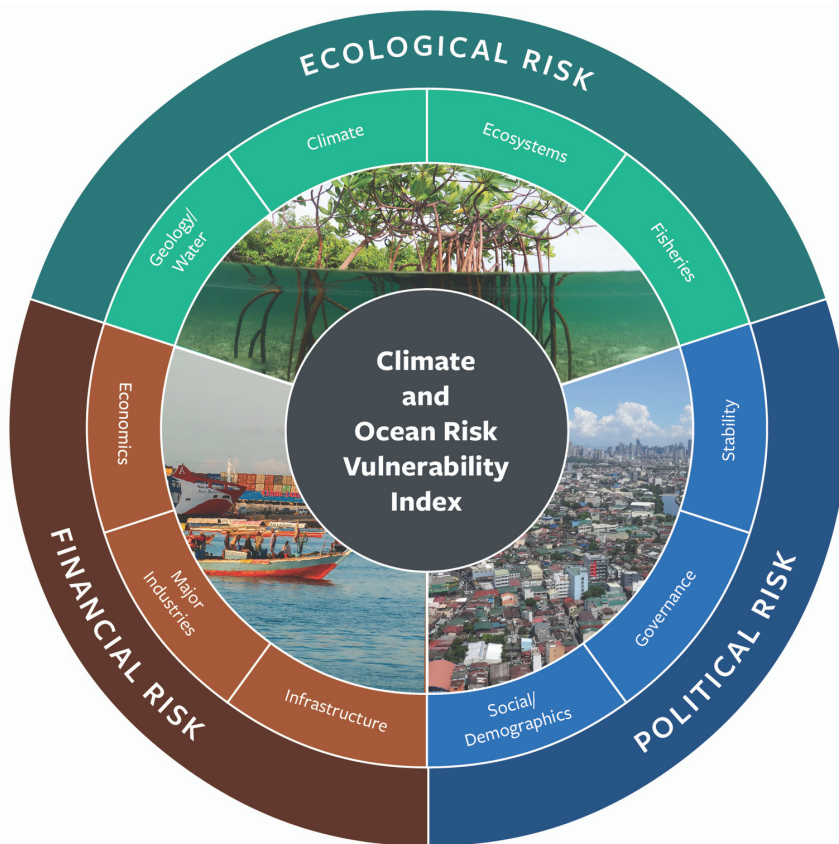
- For **GOVERNMENTS**, CORVI is a tool to quantify the threat posed by climate change when integrated with social, economic, and political considerations, prioritize action, devise innovative policy solutions, and attract international funding to build resilience.
- For **PUBLIC AND PRIVATE INVESTORS**, CORVI provides a detailed assessment of climate fragility risks designed to improve investment decisions that drive funding to targeted actions for effective resilience building in coastal cities.
- The **INSURANCE INDUSTRY** can use CORVI to understand financial and non-financial factors which contribute to the vulnerability of coastal cities, and to demonstrate the need for increased resilience.



CORVI: A Decision Tool for the Future

To overcome data gaps, CORVI uses structured expert judgement to quantify risk when existing empirical data is inadequate. By combining empirical and expert survey data across 10 risk categories and close to 100 indicators, the CORVI assessment collects data in areas that would otherwise be unavailable to researchers.

With this data, CORVI compares climate risk across multiple sectors, from financial costs, to ecosystem degradation, to political capacity. This approach allows city planners to compare diverse factors in the final risk profile. Data is also collected from other coastal cities in the same region to provide comparative insights into the threat the challenges their cities face.



After pilot projects in the Caribbean **CORVI is expanding fast**, with additional assessments underway across the globe.

Assessments Completed

- Castries, Saint Lucia
- Kingston, Jamaica

Assessments underway

- Chittagong, Bangladesh
- Dagupan, The Philippines
- Dar es Salaam, Tanzania
- Mombasa, Kenya
- Suva, Fiji

Assessments Planned (cities in)

- Belize
- Vietnam

In sum, CORVI is an index designed to support smart future investment in climate resilience across coastal cities. Climate and ocean risks are on the rise and against this backdrop, building resilience requires flexibility and enhanced capacity through social, economic, and environmental systems. CORVI is a valuable tool for decision makers to identify and categorize risk across sectors and aid in the design of integrated policy solutions to build climate resilient cities. If this is not done, the risk of instability will only grow, with devastating consequences for the security of city residents, states, and the international community.

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About the Stimson Center

The Stimson Center is a nonpartisan policy research center working to protect people, preserve the planet, and promote security and prosperity. Please contact Sally Yozell for more details (syozell@stimson.org).