





# LAY THE FOUNDATIONS FOR RESILIENT CITIES, ONE BUILDING AT A TIME

An innovation of IFC, a member of the World Bank Group, Building Resilience Index is a web-based hazard mapping and resilience assessment framework for the building sector that makes it possible to assess, improve, and disclose the resilience of buildings. Building Resilience Index helps to:



### **Identify Risk**

Identify applicable natural hazards and vulnerabilities based on the location and design of a building.



### **Manage Risk**

Explore a list of risk mitigation measures for enhancing the physical integrity and operational continuity of a building.



#### **Disclose Risk**

Communicate the resilience of a building by using a standardized letter grade rating system.

# **BUILDING RESILIENCE INDEX - RATING LEVELS**



The building fails to incorporate most recommended resilience practices of Building Resilience Index. It will likely not withstand most applicable hazards, even at moderate level.



The building incorporates some recommended resilience practices of Building Resilience Index. It will likely withstand some applicable hazards at a moderate level.



The **building incorporates most recommended resilience practices** of Building Resilience Index. It will likely withstand some applicable hazards at a moderate-high level.



The building incorporates ALL recommended resilience practices of Building Resilience Index for all applicable hazards, which are generally set above the local building standards. It will likely withstand all applicable hazards at high level.



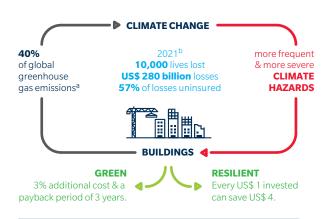
The rating followed by '+' indicates that the building meets all requirements of the identified Building Resilience Index rating, plus recommended operational continuity measures.

## WHY IS RESILIENCE CRUCIAL FOR BUILDINGS?

Natural disasters are becoming increasingly more costly. Urban growth is leading to greater concentration of people and assets in cities, which are often located in high-risk areas. Meanwhile, climate change is exposing cities to more frequent and intensified natural disasters, leading to higher hazard risks on lives, livelihoods, and assets.

Disaster risks on buildings decrease property values, increase insurance premiums, and compound recovery costs; all of which have repercussions for developers, users, financial institutions, and public sector stakeholders.

Building Resilience Index is designed to complement IFC's EDGE Green Buildings Program, which addresses climate change mitigation in the building sector. We encourage you to pair resilience practices with efficiency measures to achieve both mitigation of emissions and adaptation to climate change.



a: emissions including embodied carbon

b: includes data from all natural disasters

 $Authors' original \ graphic \ with \ data \ from: IFC, \ MunichRE, \ and \ National \ Institute \ of \ Building \ Science.$ 



 $<sup>^*</sup> Probable \, \textit{Maximum Loss} \, (\textit{PML}) \, \textit{current replacement cost}, including \, \textit{structural and equipment}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement cost}, including \, \textit{structural and equipment}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement cost}, including \, \textit{structural and equipment}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement cost}, including \, \textit{structural and equipment}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement cost}, including \, \textit{structural and equipment}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement cost}, including \, \textit{structural and equipment}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement cost}, including \, \textit{structural and equipment}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement cost}, including \, \textit{structural and equipment}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement cost}, including \, \textit{structural and equipment}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operational costs} \, (\textit{PML}) \, \textit{current replacement}, excluding \, \textit{operation$ 

# WHEN YOU KNOW, YOU ACT!

Here are a few ways you can benefit from Building Resilience Index:



## **Construction Developers**

- Assess and improve resilience to site-specific natural hazards
- Disclose resilience rating to your financiers, insurers, and users
- Differentiate your brand as a developer of resilient buildings



## **Insurance Companies**

- Complement catastrophe modeling with a multi-hazard approach
- Review resilience rating of assets before underwriting
- Save time and resources on project evaluation processes



## **Property Buyers & Owners**

- · Make informed investment or retrofit decisions
- Learn the resilience value of your investment
- Minimize operational disruptions and insurance costs



#### **Banks**

- Make informed investment decisions based on climate risks on buildings
- Save time and resources on project evaluation processes
- Reduce property investor risk exposure



#### **Governments & Local Authorities**

- Create skills in the market for more resilient construction practices
- Reduce repetitive costs of post-disaster recovery and reconstruction
- Create an enabling environment for mainstreaming resilient buildings



## **Occupants & Lessors**

- Choose to live and work in safer buildings
- Minimize operational disruptions
- Reduce risk of losses due to natural disasters

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Government of the Netherlands



**Australian Government** 



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Developed by IFC's Climate Business Department, under the World Bank Group's Action Plan on Climate Change Adaptation and Resilience of 2019, Building Resilience Index provides a rating tool for private sector action in climate adaptation in building sector, thus complements EDGE Green Building Certification platform (www.edgebuildings.com) focused on climate change mitigation.



IFC—a member of the World Bank Group—is the largest global development institution focused on the private sector in emerging markets. We work in more than 100 countries, using our capital, expertise, and influence to create markets and opportunities in developing countries. In fiscal year 2022, IFC committed a record \$32.8 billion to private companies and financial institutions in developing countries, leveraging the power of the private sector to end extreme poverty and boost shared prosperity as economies grapple with the impacts of global compounding crises. For more information, visit www.ifc.org.

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