

Building Resilience with the Sendai Framework

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**Resilience Action Fund
FIU Extreme Events Institute**

**Safety + Emergency Readiness Virtual Summit
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Resilience Action Fd @Res... · 20m ✓
"Could have spent more on bigger/
fancier home or stuffed it w/
gadgets, but I put resilience first.
It's your life, your money, your
choice"

Resilience Action Fd @Resilie...
Our chair didn't evacuate Miami
home and suffered no damage.
Why? 14ft elevation, 150+mph
wind design, generator.



Lets live by example

My Resilience Journey



Resilience Action Fund
For a Stronger and Safer
Built Environment



Resilience Action Fund (RAF)

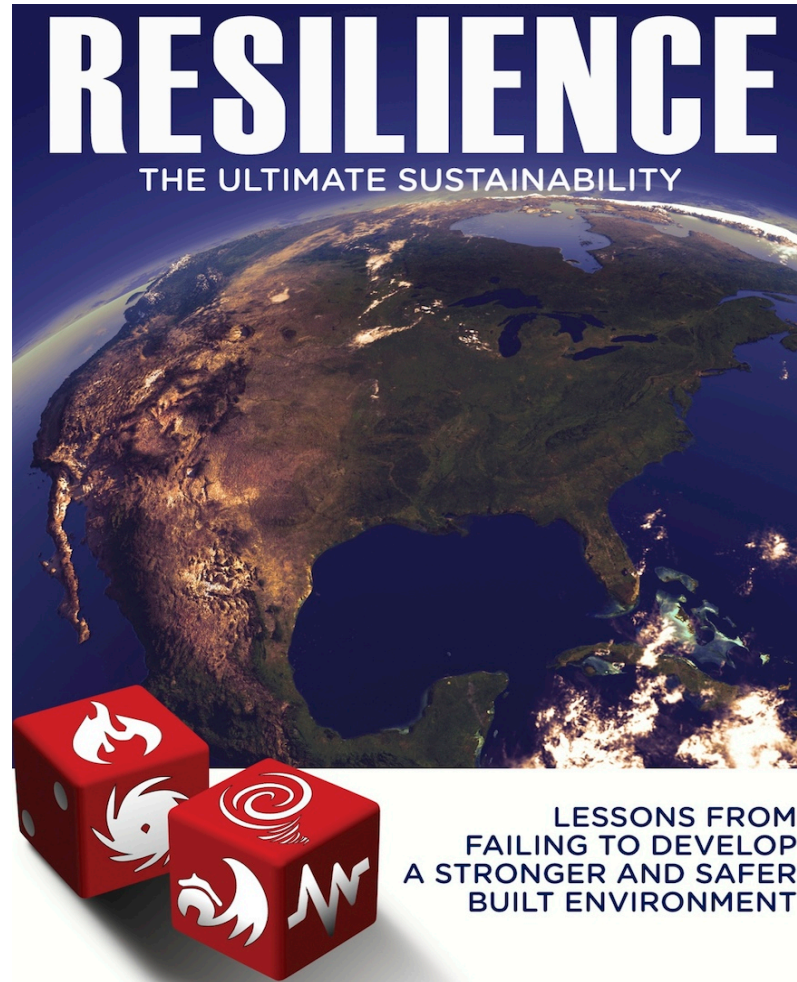
**501(c)3 with mission to advance
awareness, transparency & education
for greater resilience in the built environment**

Programs:

communications/publications
collaboration with major universities
sponsoring educational/research projects
engagement with national/international organizations



An insider's account on why we have failed



ARIS PAPADOPOULOS

Available at
www.buildingresilient.com

English and Spanish
E-book and hardcopy



Sendai Framework for Disaster Risk Reduction 2015-30

Signed by 187 Nations

March 18, 2015

Contains:

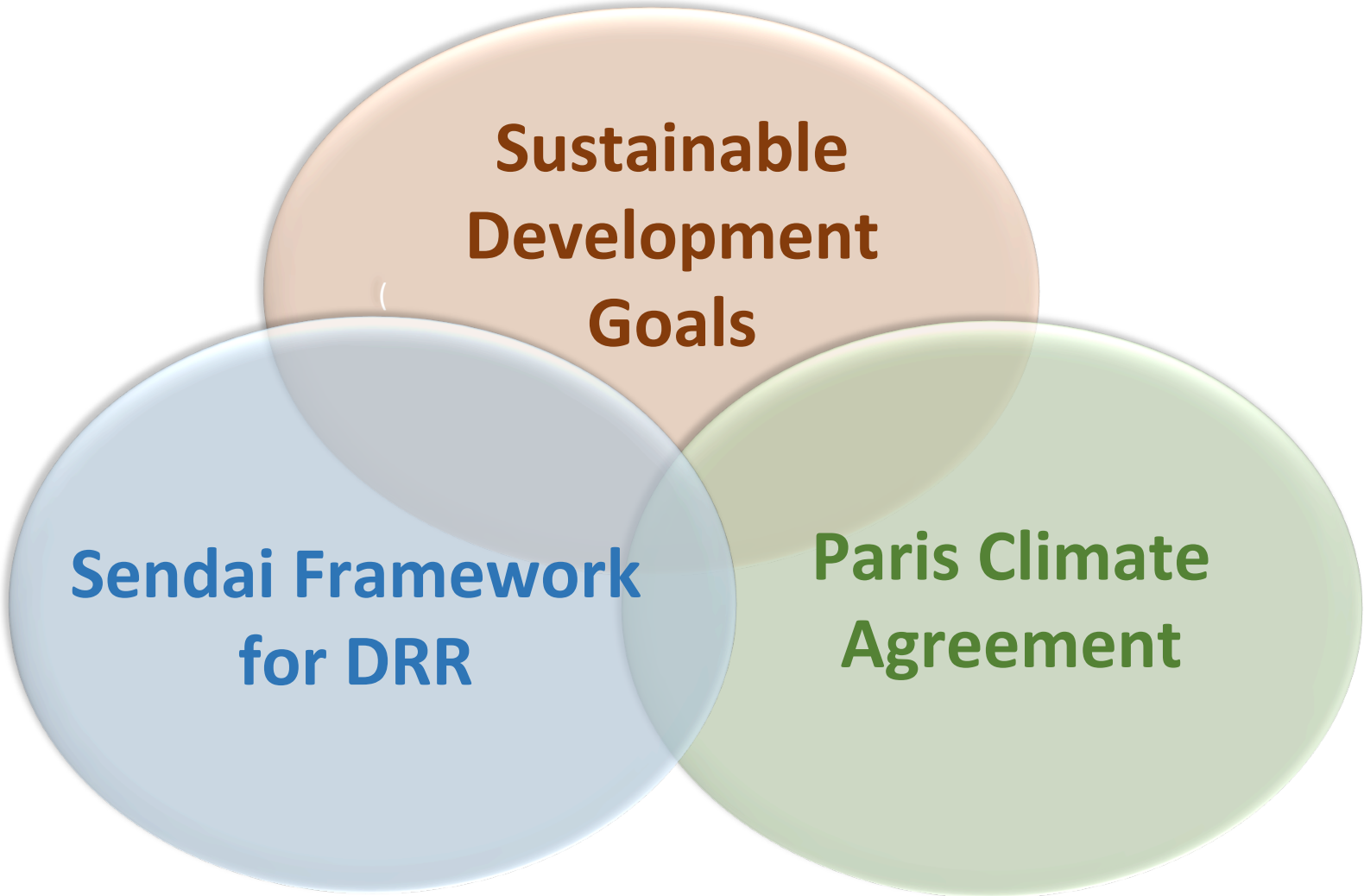
13 Principles

4 Priorities

7 Targets



Key 2015 UN Agreements



Sendai Framework is equivalent in importance to the 1992 Rio Climate Agreement

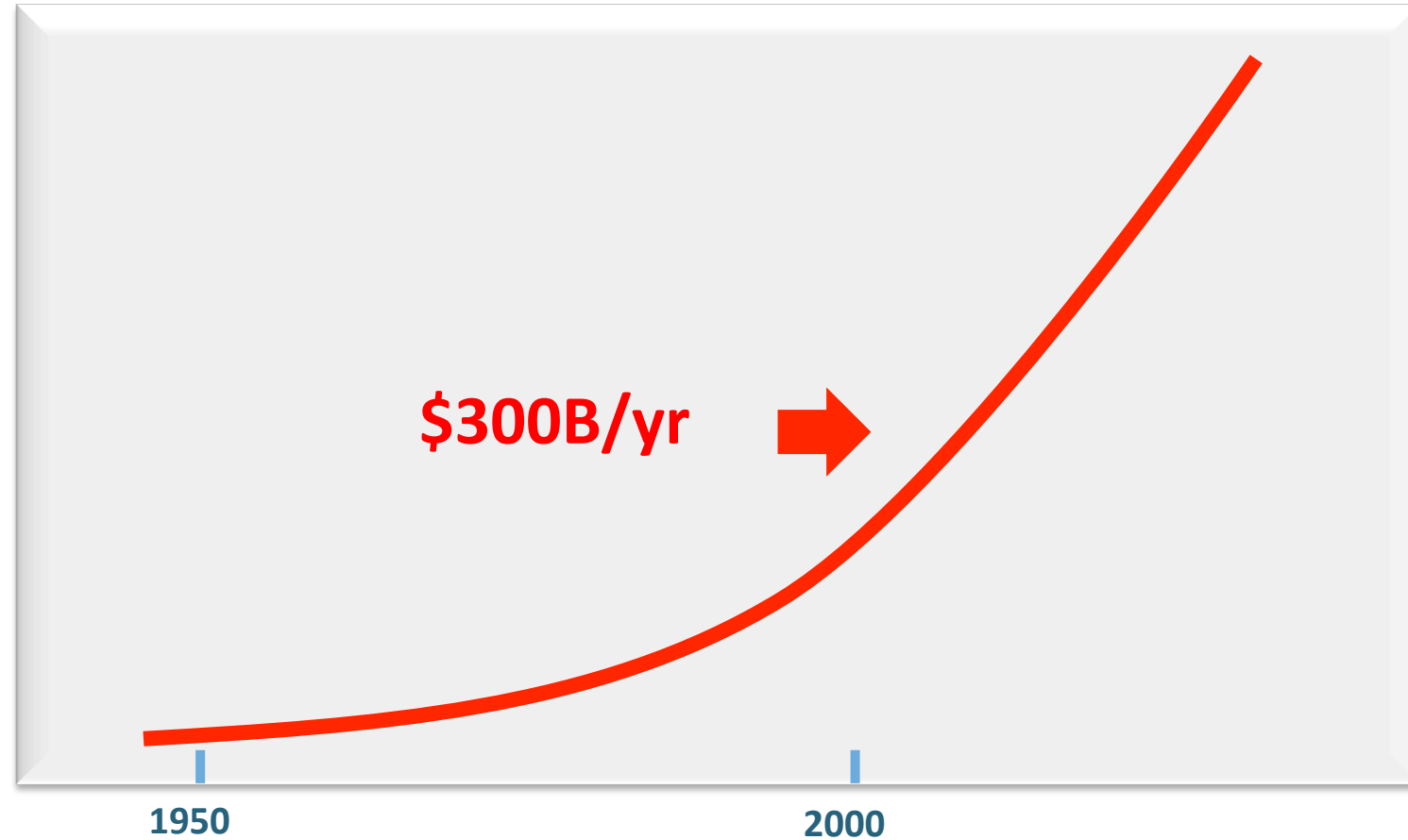
Similar to Rio's annual COP meetings, Sendai calls for bi-annual Global Platform meetings to add specific metrics, targets, commitments and accountability to its framework.

The first held May 2017 in Cancun, Mexico.



Problem

**Asset
Losses**
(average global)



Source: UNISDR

Time

Follow the \$€£¥



of losses are
Built Environment



of B/E losses
are Private



of Private losses
are Residential

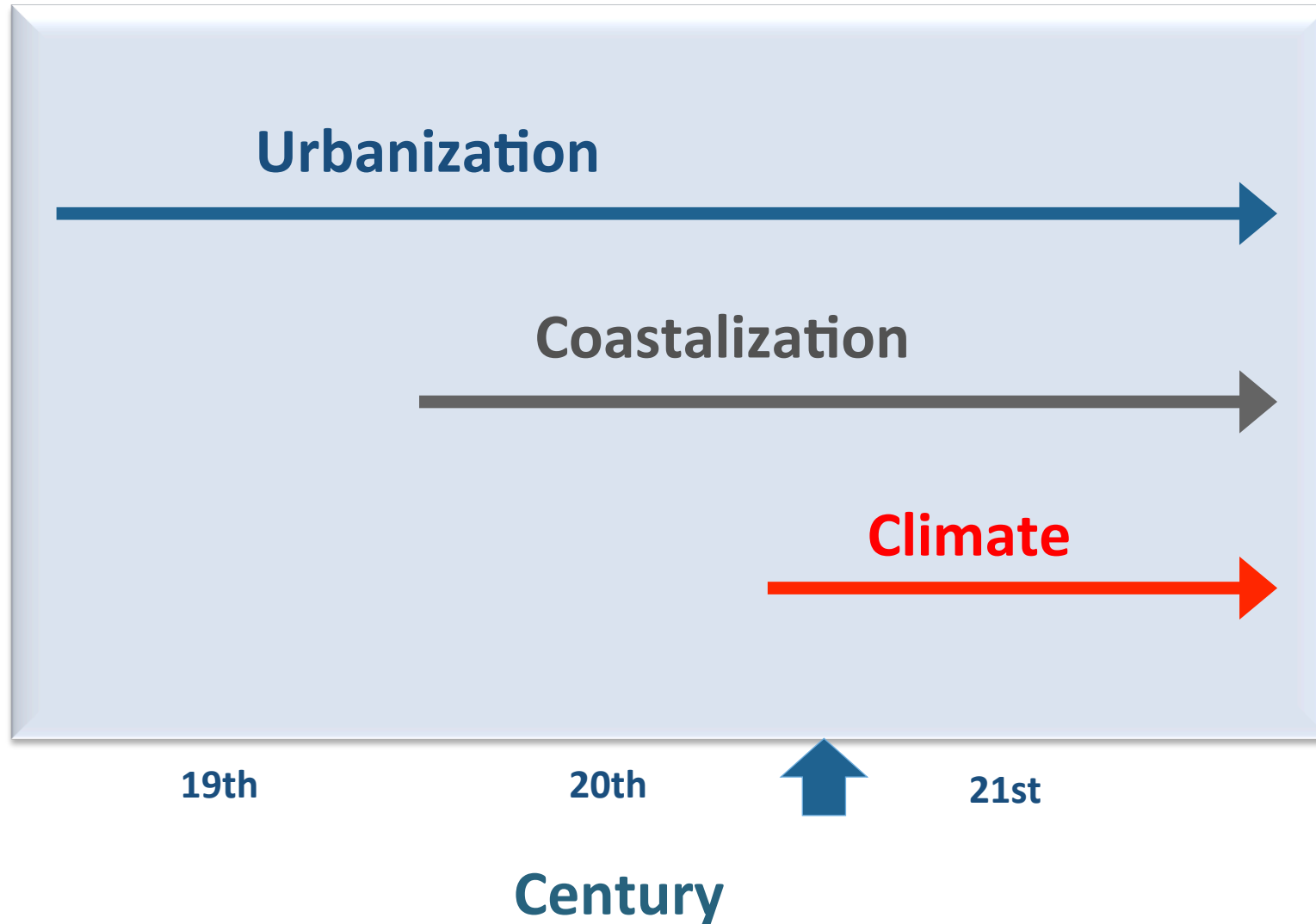
70+% of losses are in **Developed Economies**

Developing Economies:
Lack zoning, codes
& enforcement



Developed Economies:
Set low standards
in zoning & codes

Why?



Evolution of DRR at UN over past 1/2 century

- 1970 UN charged to develop pre-disaster planning initiative
- 1971 **UN Disaster Relief Office (UNDRO)** created
- 1974 UN Conference on Desertification held; UNDRO strengthened
- 1981 UN capacity to respond to natural & other disasters strengthened
- 1990 **International Decade for Natural Disaster Reduction (IDNDR)** and its action framework adopted
- 1994 **World Conference on Disaster Reduction in Yokohama** adopts action strategy
- 1999 IDNDR concludes with call for stronger action
- 2000 International Strategy for Disaster Reduction (UN-ISDR) created as main UN DRR body
- 2002 **Johannesburg Plan of Action** adopted at World Summit on Sustainable Development sets UN-ISDR objectives
- 2005 **Hyogo Framework for Action 2005-15** adopted
- 2007 UN-ISDR holds first of four bi-annual Global Platform DRR Conferences
- 2011 Private Sector debuts engagement in UN-ISDR
- 2015 **Sendai Framework for DRR: 2015-30**
- 2017 First post-Sendai Global Platform

Source: <https://www.unisdr.org/who-we-are/history>

Strategic Shift of Sendai

Reaction → Pro-action

Response → Prevention

Emergency Management → Risk Management

Emergency Responders → Economic Developers

Vulnerability → Resilience



Sendai 7 Global Targets

1. Reduce disaster **mortality**

2. Reduce the number of **people affected** by disasters

3. Reduce disaster **economic losses**

4. Reduce damage **to critical infrastructure** and disruption of basic services

5. Increase the number of countries with **DRR strategies**

6. Enhance **international cooperation** to complement national programs

7. Increase availability of and access to **early warning systems & risk information**



Sendai Principle #10

“Disaster risk-informed public & private investments are **more cost-effective** than primary reliance on post-disaster response & recovery, and contribute to sustainable development”



Sendai Priority #3: Resilient Investment

- Strengthen resilience of public & private investments by **'Building Better from the Start'** to withstand hazards thru proper design/construction
- Revise existing/develop new **building codes & standards**
- Reinforce capacity to **implement and enforce codes**



Sendai Priority #4: 'Build ~~Back~~ Better'

- More **resilient infrastructure**:
water, transport, telecom, educational & health facilities
- Relocate/rebuild public facilities & infrastructure **outside high risk areas**
- Develop and disseminate **standards & codes**

Sendai: Role of Stakeholders

- **Financial institutions**, Regulators & Accounting Bodies: Integrate disaster risk management into business models, practices and develop standards
- **World Bank & Regional Development Banks**: Consider Sendai in lending
- **Media**: Actively raise public awareness, disseminate accurate information and stimulate culture of prevention

Outcomes of 2017 Global Platform

- **Agreement on Global Disaster Reporting:** Annual national reporting by 2020 of key disaster metrics, including number of homes destroyed/damaged, economic loss etc.
- **Focus on Housing & Infrastructure:** Majority of economic losses are residential and represent most vulnerable segment of built environment
- **Engagement with Private Sector:** Role and presence of private sector expanded



UN Private Sector Alliance for Disaster Resilient Societies (ARISE)

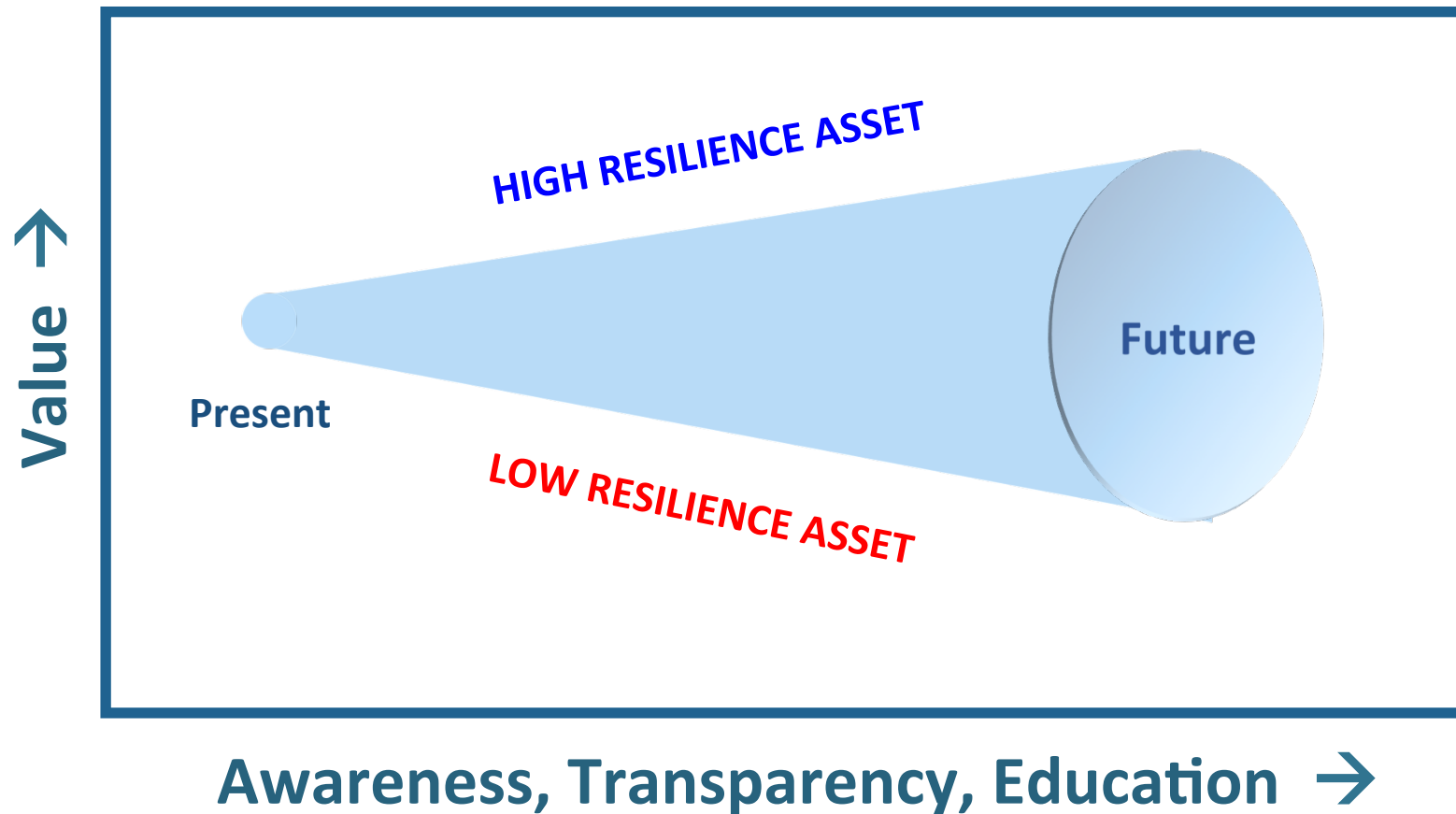
- **200 companies from around the world:** Committed to resilience in own operations, supply chains, products/services & public advocacy
- **Network for knowledge-sharing & collaboration:** Seven global themes, emerging country networks (ARISE-US launch Oct 12)
- **Engagement and partnering with Governments:** UN opens doors/provides credibility



How business may change by 2025

1. Metrics, **transparency** and awareness
2. **Publicly-traded** multinationals will lead
3. Financial statements will include hazard vulnerability **disclosure**
4. **Lenders** will require hazard exposure
5. **360** resilience **strategies**: facilities, supply chains, distribution, employees
6. **Countries/cities** will use resilience to compete for investment
7. **Suppliers** will face scrutiny from buyers

Consumer today does not **Differentiate Value**



Resilience is an Environmental Issue

- Reconstruction resources
 - Destruction debris
- Building on sensitive lands



Resilience is a Social Equity Issue

- 1. Vulnerability disproportionately affects poor**
- 2. Low Resilience traps poor in vicious Disaster-Poverty Cycle**
- 3. Making Resilience more affordable vs lowering standards to gain affordability is the challenge**



Natural ~~Disasters~~

Natural Hazards

+

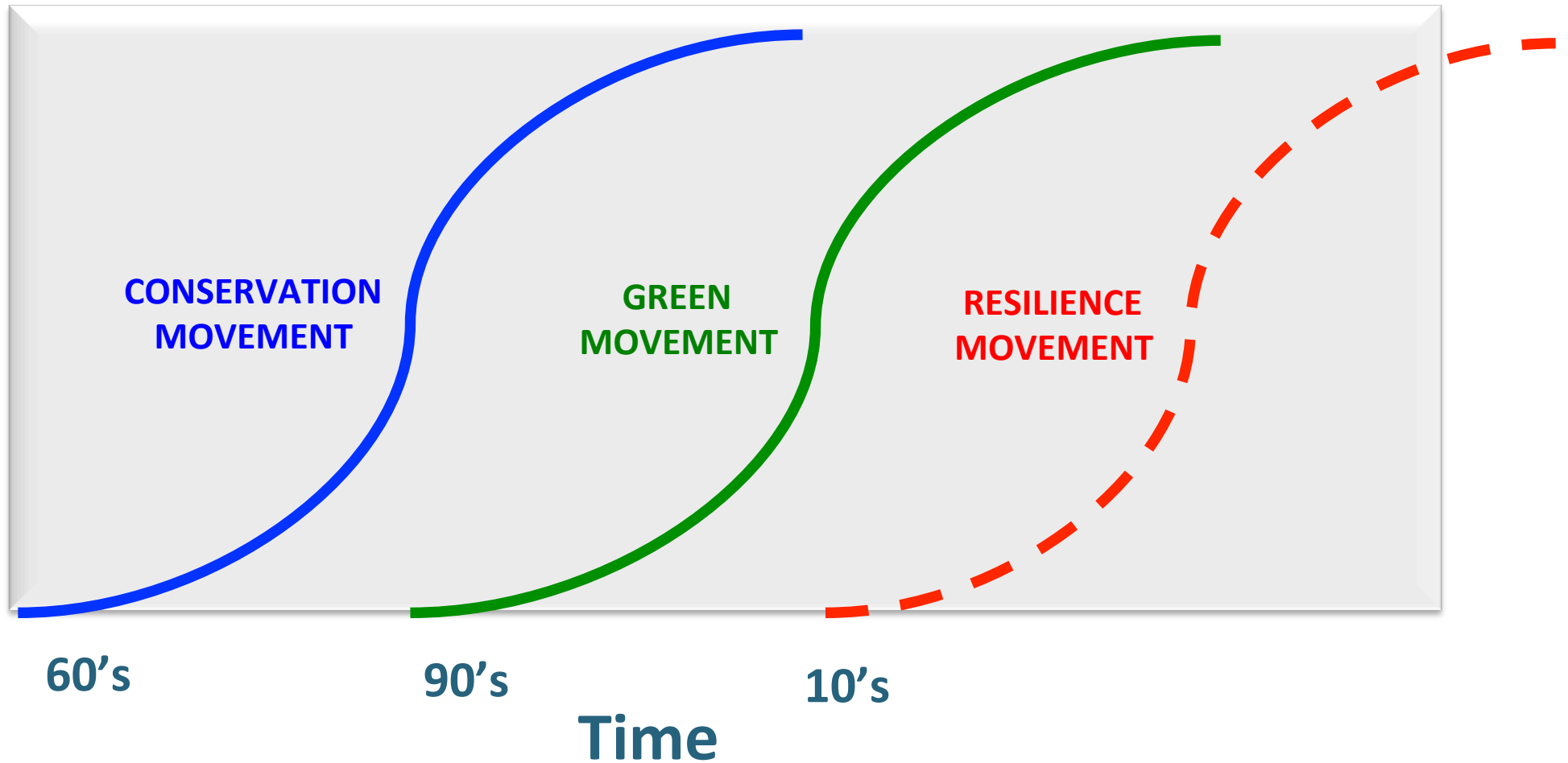
Non-Resilient Development

=

Development Disasters

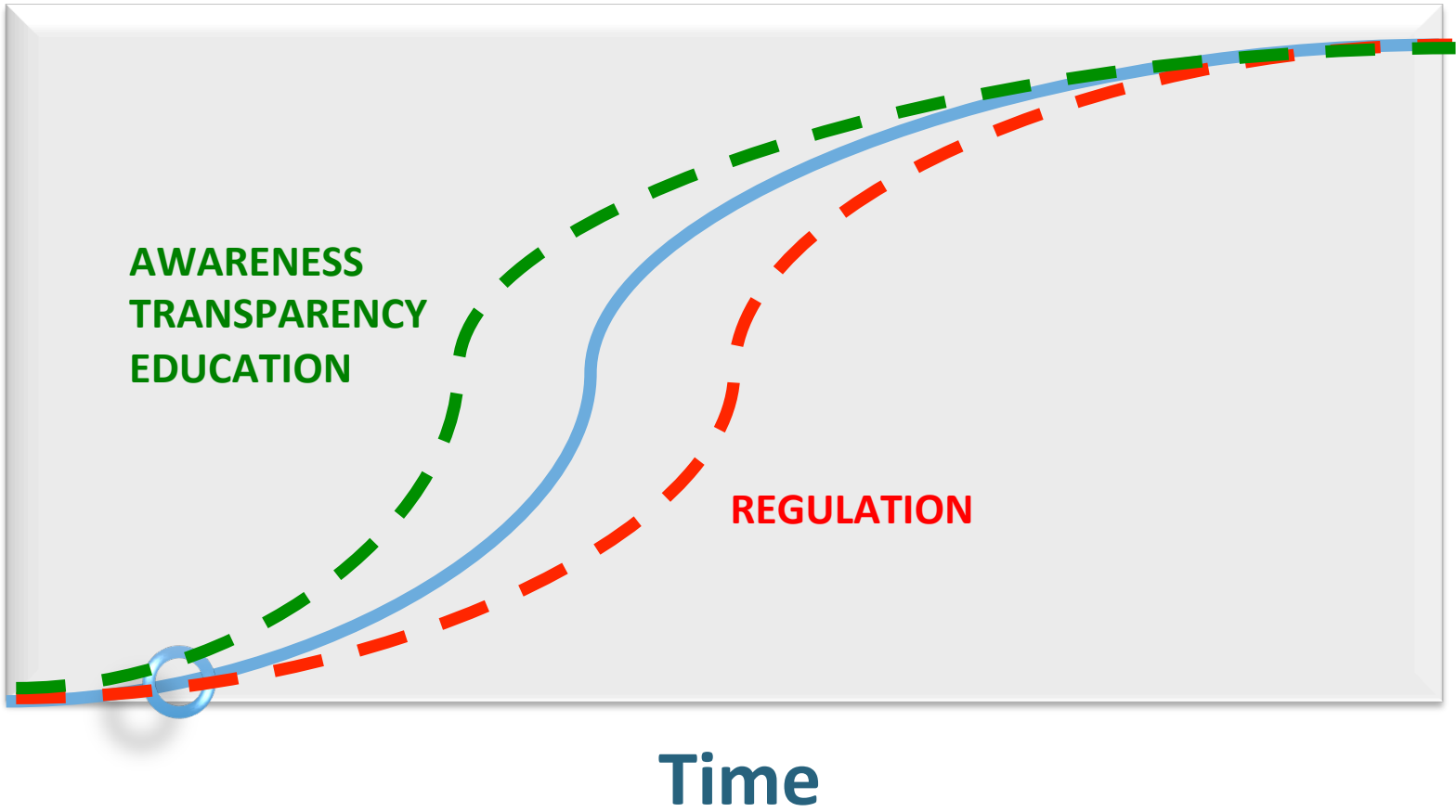
In last 50 years we witnessed several Megatrend Waves

Adoption



We're in the early stage of a **Resilience Movement**

**% of
Potential**





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Built Environment

Thank you!