

Harnessing AIA Resources to Drive Resilience in the Built Environment

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Architecture: From Dream to Reality

From Colombia. I dreamed of wild, green buildings that "make engineers cry"

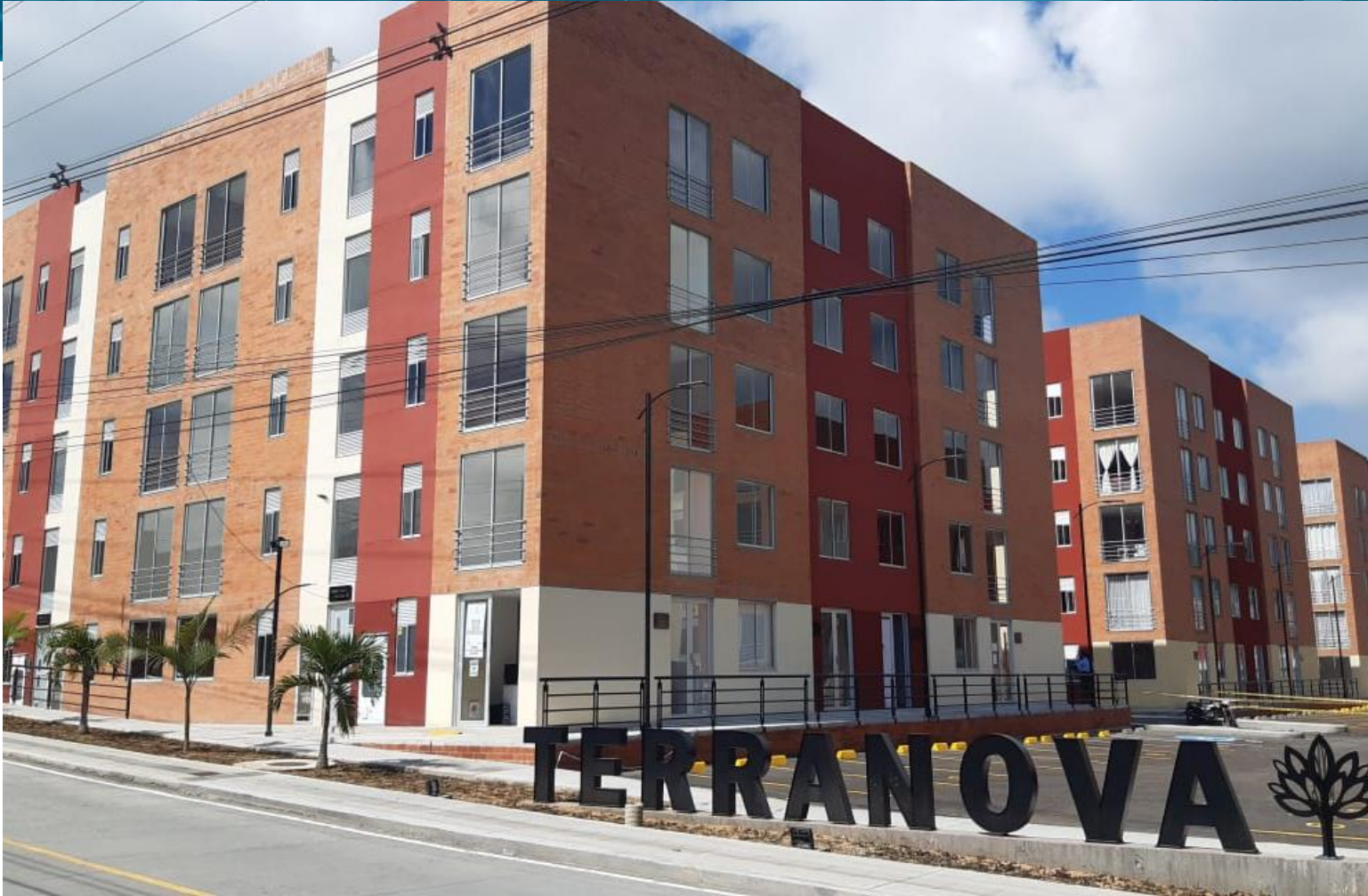
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NOT
Colombia



From Ambition to Purpose

Purpose Shift: The Role of the Architect



1999 ARMENIA, COLOMBIA EARTHQUAKE

- Magnitude of 6.2
- 75% collapsed
- 300,000 people affected.
- Main construction material concrete and brick.
- NSR-98 and NSR-10





BAHAREQUE IS A
TRADITIONAL BUILDING
TECHNIQUE



Understanding Resilience

Resilience = the ability to *bounce, flex, and recover*.

It's *not just* sustainability. It's about expecting the unexpected—and being ready for it.

Place-Based Design

System-Centric Approach

Adaptive Capacity

Equitable Protection



The Resilience Imperative



Climate Change Reality

Extreme weather events have increased 83% in the last 20 years.



Infrastructure Vulnerability

Our aging built environment faces unprecedented threats.



Economic Impact

Natural disasters cost \$210 billion annually in damages worldwide.



Resilience Solution

Strategic design can protect communities and save resources.



The Economic Case for Resilience

6:1

ROI Ratio

Average return on investment for resilience measures

30%

Insurance Savings

Typical reduction in premiums for resilient structures

40%

Recovery Time

Decrease in business downtime after disasters

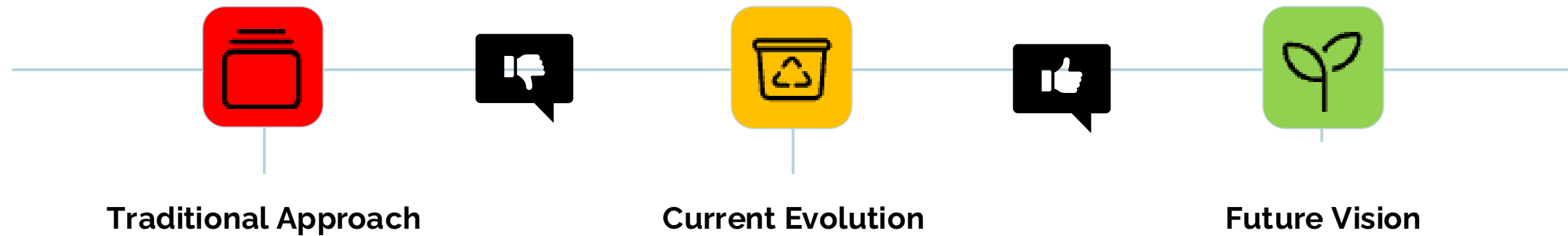
25yr

Extended Lifespan

Additional years of service from resilient buildings



Designing for Circularity and Change





AIA Framework for Design Excellence: Design for Resilience





HKS and AIA Resilience Design Toolkit

A simple guide to make buildings tougher and smarter – like a LEGO set that survives a toddler!

5-Step Resilience Recipe

1. Resilience Scope – What's at risk?
2. Team Planning – Get the right experts onboard.
3. Identify Hazards – Spot the dangers (floods, power loss, etc).
4. Integrate Design – Use smart strategies, prove value.
5. Evaluate, Learn, and improve after move-in.

Design *with* communities

Start early

Use real data

Be flexible!

Partnership Networks

Connections with experts, suppliers, and stakeholders strengthen implementation capabilities.

Material Selection Revolution



AIA Materials Pledge



Aesthetic Considerations

Visual appeal and design expression



Performance & Economics

Durability, maintenance and lifecycle costs



Environmental Impact

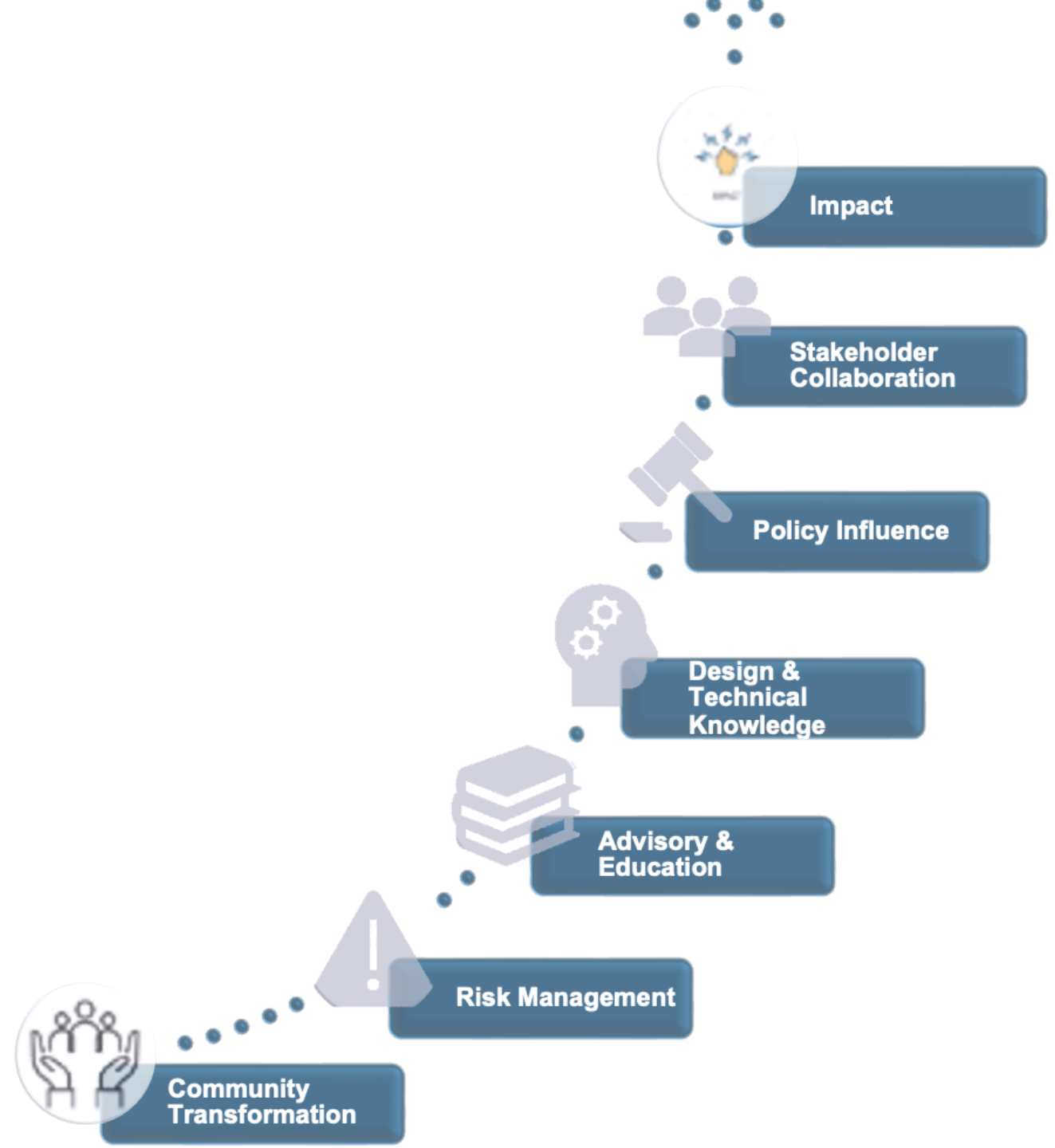
Carbon footprint and resource efficiency



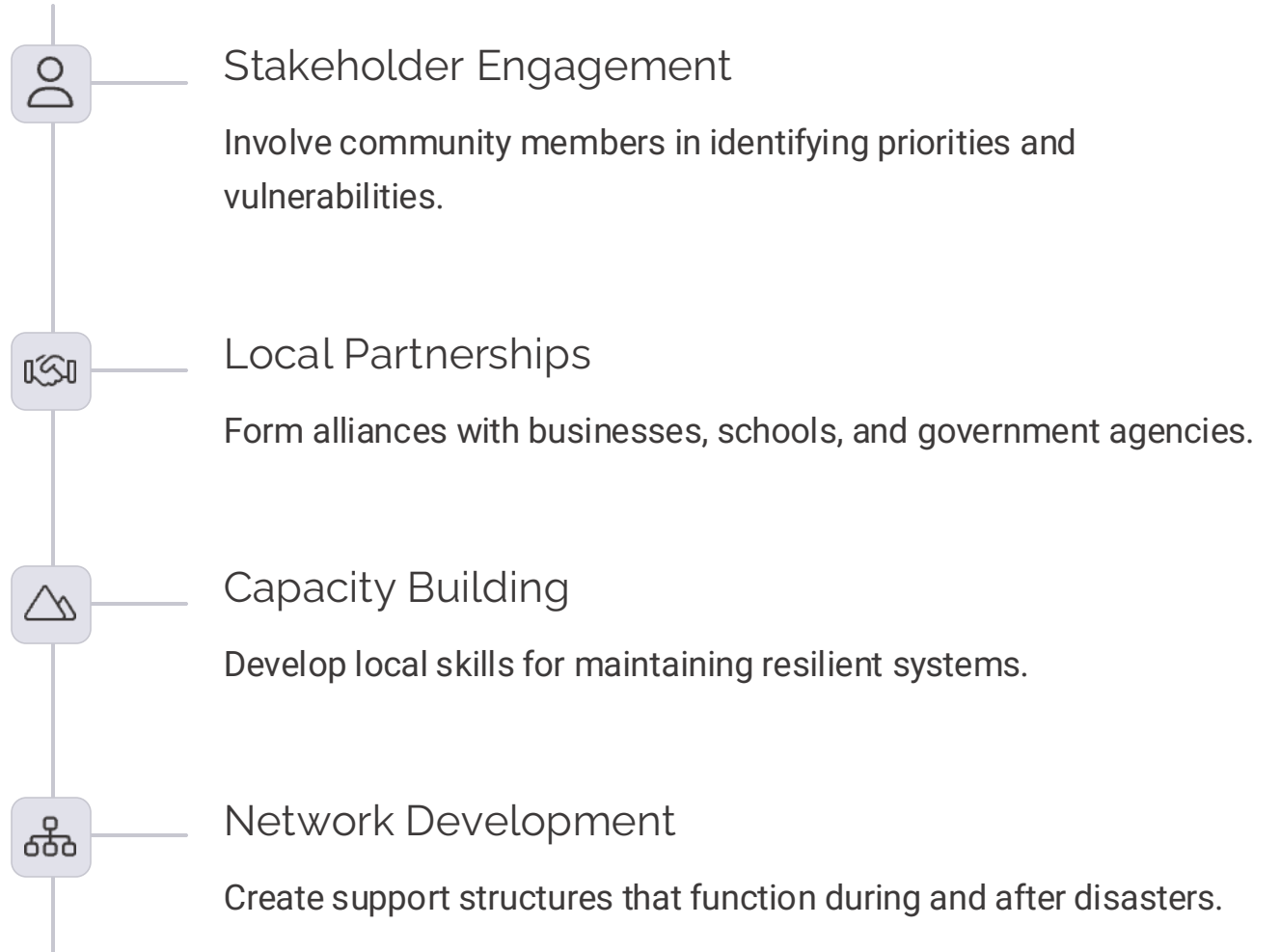
Resilience Properties

Performance under stress and adaptability

Your Critical Role



Building Community Resilience





Resilience in Practice



Assess Vulnerabilities

Analyze site-specific risks and evaluate potential impacts on building systems and occupants



Design Responsive Systems

Create integrated architectural solutions that address identified vulnerabilities



Implement Resilience Features

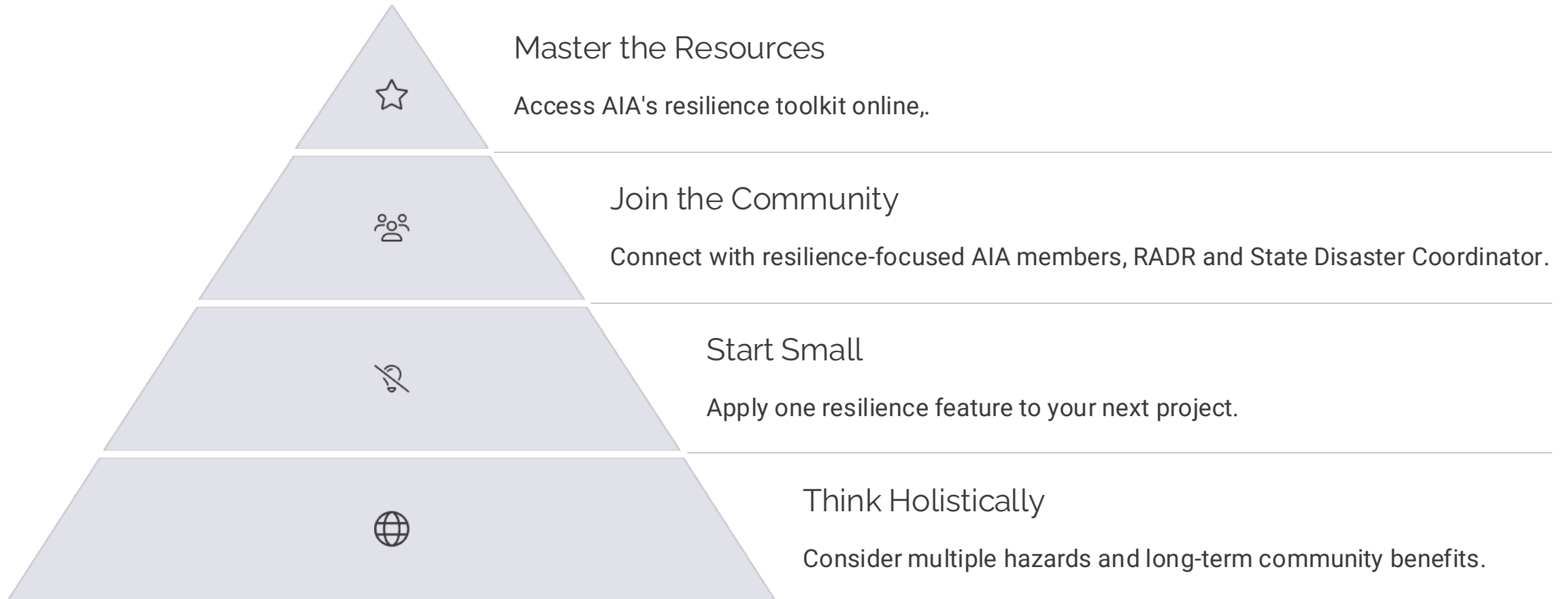
Incorporate passive survival, backup systems, and adaptive technologies



Plan for Evolution

Design for future modifications as conditions change and new threats emerge

Your Next Steps



Resilience and Disaster Assistance webpage



Guide to Building Reuse for Climate Action

Knowledge to make informed decisions that promote sustainability and resilience while minimizing costs.



Resilient Project Process Guide

This resource presents a series of questions for professionals to engage clients.



Disaster Assistance Handbook

helps to support communities before and after disasters.



AIAU Certificate Series

Safety Assessment Program

Resilience and Adaptation Online Certificate Program





Thank You

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