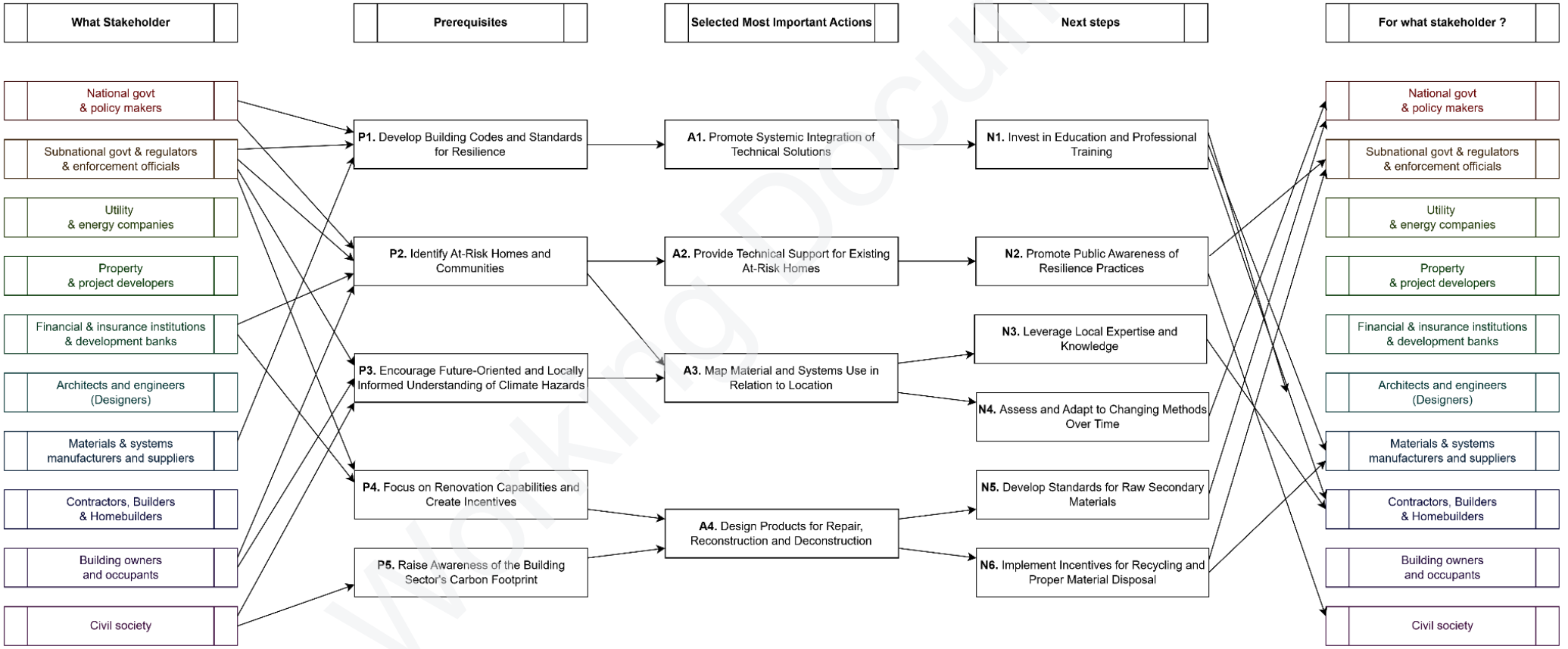
Global Alliance for Buildings and Construction

Materials & systems manufacturers and suppliers

Adaptation Pathway



P1. Develop Building Codes and Standards for Resilience

Description: Advocate for the creation and refinement of building codes and standards that provide technical guidance for manufacturers and policymakers on resilience practices.

Inputs from Other Stakeholders: Governments and regulatory bodies should actively involve manufacturers in the development process to ensure that codes reflect practical challenges and opportunities within the industry.

P2. Identify At-Risk Homes and Communities

Description: Conduct comprehensive assessments to identify homes and communities most vulnerable to climate risks. This involves collecting and analyzing data on hazard exposure, structural conditions, and socio-economic factors.

Inputs from Other Stakeholders: National governments and local authorities can provide access to data on hazard mapping and risk assessments, while community organizations can help identify specific local vulnerabilities.

P3. Encourage Future-Oriented and Locally Informed Understanding of Climate Hazards

Description: Promote research on evolving climate risks, leveraging both future projections and historical weather patterns, to guide manufacturers in developing resilient materials and systems. Documenting and integrating local best practices and traditional building solutions can offer valuable insights for product innovation, especially for materials suited to specific regional conditions.

Inputs from Other Stakeholders: Collaboration with climate scientists, urban planners, risk management professionals, local communities, and academic researchers enhances understanding of future climate scenarios and vernacular resilience practices. This collective knowledge supports the development of materials and systems adapted to specific environmental challenges.

P4. Focus on Renovation Capabilities and Create Incentives

Description: Identify and target homeowners and organizations with the capacity to renovate existing buildings, while developing financial mechanisms and incentives to facilitate these improvements.

Inputs from Other Stakeholders: Financial institutions and local governments can collaborate to provide grants, low-interest loans, or tax incentives for renovation projects that prioritize resilience and sustainability.

P5. Raise Awareness of the Building Sector's Carbon Footprint

Description: Promote initiatives that educate stakeholders about the significant carbon emissions and environmental impacts associated with traditional building practices, and the benefits of adopting more resilient, low-carbon materials and systems.

Inputs from Other Stakeholders: Trade associations, environmental NGOs, and academic institutions can collaborate on awareness campaigns and educational programs to amplify the message across various sectors.

A1. Promote Systemic Integration of Technical Solutions

Goal: Ensure that manufacturers work collaboratively to create a seamless supply chain of resilient materials and systems, facilitating easy access for builders and designers.

Description: Engage in partnerships with other manufacturers to integrate compatible products and materials, streamline training programs, and enhance resource availability. This systemic approach ensures that builders can easily find and implement resilient solutions without encountering barriers due to a lack of coordination among suppliers.

A2. Provide Technical Support for Existing At-Risk Homes

Goal: Assist homeowners and communities in implementing resilience measures in existing buildings, particularly those most vulnerable to climate impacts.

Description: Develop and disseminate guidance, resources, and training for homeowners and contractors on retrofitting techniques, material choices, and best practices to enhance resilience against climate risks. This can include support for improvements like flood barriers, insulation upgrades, and energy-efficient systems.

A3. Map Material and Systems Use in Relation to Location

Goal: Conduct assessments of material availability, maintenance capacities, and recycling capabilities in specific regions to inform better decision-making in construction projects.

Description: Before construction begins, map out the suitability of materials based on local conditions, including their environmental impact and potential for reuse or recycling. This ensures that projects not only use appropriate materials but also consider the long-term implications of material choices on resilience and sustainability.

A4. Design Products for Repair, Reconstruction and Deconstruction

Goal: Create materials and systems that prioritize ease of deconstruction and reconstruction, supporting sustainable practices and material reuse.

Description: Develop modular products that can be easily assembled and disassembled, facilitating both repair and upgrades over time. Take access to and availability of raws materials and components into account in the design phase. Favor the use of locally sourced raw materials and components. This reduces waste and promotes the use of local materials in multiple projects, aligning with circular economy principles.

N1. Invest in Education and Professional Training

Action: Develop and promote training programs focused on material selection, sustainable practices, and resilience strategies for builders, contractors, and other industry professionals.

Rationale: Empowering industry professionals with the knowledge and skills necessary to effectively integrate resilient materials into their work is crucial for achieving long-term adaptation goals. This training should include hands-on workshops and certification programs to ensure practical application.

N2. Promote Public Awareness of Resilience Practices

Action: Launch public awareness campaigns that educate communities about the importance of resilience in building practices and the benefits of using sustainable materials.

Rationale: Raising public awareness can drive demand for resilient construction and encourage community support for local initiatives. Informed citizens are more likely to advocate for sustainable practices and participate in resilience-building efforts.

N3. Leverage Local Expertise and Knowledge

Action: Actively engage and involve local builders and tradespeople in the design and construction process, valuing their expertise in sustainable practices and regional conditions.

Rationale: Local builders often have unique insights into effective construction methods and materials that are suitable for the local climate and environment. Their participation can enhance the effectiveness of resilience strategies and ensure cultural relevance in building practices.

N4. Assess and Adapt to Changing Methods Over Time

Action: Conduct regular evaluations of construction methods and materials to ensure they remain reliable and effective over extended periods, particularly as climate conditions evolve.

Rationale: By continuously assessing and updating methods and materials used in construction, the sector can adapt to changing climatic conditions and maintain resilience. This proactive approach will help mitigate risks associated with aging infrastructure.

N5. Develop Standards for Raw Secondary Materials

Action: Establish clear and rigorous standards for the use of secondary materials in construction, ensuring they meet safety, durability, and performance requirements.

Rationale: Setting standards will promote the use of recycled materials and ensure that they contribute positively to building resilience while minimizing environmental impact. This can help close the loop in the circular economy, reducing waste and resource consumption.

N6. Implement Incentives for Recycling and Proper Material Disposal

Action: Create financial incentives for recycling materials and impose penalties for improper disposal, making it more expensive to simply discard materials without considering their potential for reuse or recycling.

Rationale: By increasing the cost of disposal and providing benefits for recycling, stakeholders will be encouraged to find innovative ways to reuse materials, thus enhancing resource efficiency and reducing landfill waste.