

## KEY PRINCIPLES FOR MORE RESILIENT AND SUSTAINABLE CONSTRUCTION

“Build and rebuild better” is a concept that has been in use for several years in the context of reconstruction after physical disasters because where we build and how we build matters a great deal. It promotes society’s resilience through the restoration of physical infrastructure and societal systems with not just preventive measures, but also social and environmental improvements (Sendai Agreement, 2015, prepared and monitored by the United Nations Office for Disaster Risk Reduction (UNDRR)). In the current context of a changing climate, “build and rebuild better” is a key component in improving infrastructure and construction resilience and successfully implementing adaptation strategies to address climate risks.

Natural hazards are on the rise both in terms of frequency and severity, making prevention and anticipation vital to enable insurers to continue to play their role and provide affordable and suitable climate event-related insurance products. Insurers play a critical role in relation to climate risk, both as risk managers and as investors, by supporting the development of innovative solutions to enhance adaptation and mitigation and by implementing “build and rebuild better” strategies. Insurance coverage is essential to protect households and foster business activities, including construction companies. Likewise, long-term investments in infrastructure that is green or that promotes a transition to a more sustainable society are key elements in building resilience. Insurers also play a vital role in the reconstruction processes that follow natural disasters and they are active promoters of resilient reconstruction.

Against this backdrop, the global insurance industry strongly believes that climate adaptation considerations should lie at the very heart of building norms and processes. When planning the construction of new infrastructure, all public and private stakeholders, such as manufacturers in the construction industry, material manufacturers or architects, should put resilience at the core of their strategies in order to anticipate as far as possible natural consequences. The community in which the infrastructure is planned should also be part of the process, because sustainable construction needs to take its needs into consideration. As natural risk experts and managers, insurers are committed to contributing to such a critical debate and to sharing their perspectives on key principles for more resilient and sustainable construction. This work builds on GFIA’s reflections on climate issues as a natural next piece in the puzzle of how to address climate vulnerabilities and increase resilience throughout societies.

GFIA has identified three key principles for more resilient and sustainable construction: I) build in a more resilient way, II) build with green materials and circularity<sup>1</sup> and III) co-finance better resilience.

### I. Build in a more resilient way

#### 1. Construction and reconstruction

- To avoid recurring disasters (in particular droughts and floods), identical reconstruction after a natural disaster should not be the default. Building back better in a more resilient way is a significant building block of integrated disaster risk management (DRM). It generally requires both public and private initiatives, mostly in coordination, to decide where to build and how to build better:
  - A public land-use/urban-planning initiative
  - Private construction project and/or property initiative(s)
- Public stakeholders and private stakeholders, such as the construction industry, should consider the “risk profile” during the urban planning for new constructions, including green spaces such as green roofs or community gardens. New building standards should be adjusted to fit current geographical conditions and anticipate future risks

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<sup>1</sup> High-performance circular construction is construction that has been designed to be recycled from the outset

2. Checks on the effective implementation of building norms and urban planning should be reinforced to promote “day-to-day resilience” in the building sector.
3. More integrated decision-making tools, such as cost-benefit risk analysis, are strongly recommended.

## **II. Build with green materials and circularity**

1. Sustainable/recycled products should be used in construction to increase resource efficiency and develop green infrastructure.
2. The amount of plastic in reinstated property should be improved by reducing plastic use and encouraging the use of more easily recyclable and recycled plastics.
3. Materials should be recycled and recovered to be reprocessed as inputs for production.
4. Technical rules governing the use or re-use of materials is essential to ensure material quality and durability. Only then can reused production materials in construction be properly insured in accordance with each market's legal requirements.
5. The sudden and massive amounts of rubbish resulting from a disaster event should be better managed to accelerate the return to normal activity.
6. Resilient construction should be fostered by country- or region-specific technical advisory services on the circular economy.
7. Asset-sharing by pools of users should be promoted to reduce the material footprint, which will contribute to circularity, while still stimulating innovative product and service development.

## **III. Co-finance better resilience**

1. If reconstruction requires resilience improvements that contain new elements and exceed the insurer's indemnity, complementary funding should be provided by public authorities, for instance in the form of an interest-free bank loan.
2. By making long-term sustainable investments in infrastructure while meeting contractual obligations to policyholders, insurers support both the transition to a low-carbon economy and the availability of insurance protection.
3. Where there are long-term economic benefits from using nature-based risk reduction solutions, these should be prioritised alongside better (re)build and infrastructure investment options.