

Policy Pathways for Gaza Reconstruction: Smart, Sustainable, and People-Centered Solutions

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1. Context & Problem Statement

Gaza is experiencing one of the most severe humanitarian, environmental, and development collapses in modern history. The impacts of war are unprecedented:

- Human loss: Over 70,000 killed, 180,000 injured, 10,000 missing; total fatalities exceed 200,000.
- Widespread destruction: 92% of homes damaged, 81% of all buildings affected, and 1.5 million displaced.
- Rubble: 61 million tons of debris—equivalent to 15 Giza Pyramids or 25 Eiffel Towers.
- Economic collapse: GDP contraction of 83% with a full breakdown of basic services.
- Environmental devastation: Contaminated water, soil degradation, coastal destruction, and complete waste system failure.

According to UNDP, these combined impacts have set Gaza’s development indicators back by nearly 69 years, making ordinary “rebuilding” insufficient. A paradigm shift is required: Build Forward Better (BFB).

2. Vision: Build Forward Better (BFB)

BFB is a comprehensive, future-oriented reconstruction framework that goes beyond restoring lost infrastructure. It envisions Gaza as:

- Smart: Integrating digital solutions, renewable energy, and innovative urban systems.
- Sustainable: Applying circular economy models and environmentally responsible planning.
- Resilient: Capable of withstanding future shocks through robust infrastructure and governance.
- Peace-Oriented: Promoting social cohesion, trauma healing, and equitable governance.
- People-Centered: Led by local communities, experts, and institutions.

BFB aligns Gaza’s reconstruction with global best practices, including the UN Sustainable Development Goals (SDGs), while reflecting the lived realities of its population.

3. Strategic Priorities

Priority 1: Smart & Resilient Infrastructure

- Deploy green, energy-efficient, and affordable housing.
- Integrate renewable energy, especially solar, into schools, hospitals, water plants, and digital hubs.
- Apply circular debris management using recycled rubble as building material.
- Re-establish transport, mobility networks, and digital connectivity.

The infrastructure for digital hubs and solar-powered schools is managed under this priority to ensure systemic robustness and energy efficiency.

Priority 2: Environmental Governance & Climate Resilience

- Conduct a full environmental damage assessment.
- Restore natural systems: wetlands, coastal zones, agricultural soil.
- Introduce circular waste management and waste-to-resource solutions.
- Establish environmental monitoring, policies, and regulations.

Priority 3: Water–Energy–Food Security (WEF Nexus)

- Expand solar-powered desalination and localized water treatment.
- Reuse treated wastewater for agriculture.
- Promote urban agriculture, rooftop gardens, and controlled-environment farming.
- Train local technicians for system maintenance to ensure long-term resilience.

Priority 4: Education, TVET & Human Capital Recovery

- Rebuild education as a cornerstone for peace and stability.
- Establish temporary solar-powered schools and digital classrooms.
- Provide emergency support to universities, covering student fees.
- Launch Virtual TVET Gaza with cloud-based labs, AI modules, coding, and engineering training.
- Integrate green skills across all training programs.

This priority focuses on the curricula, human capacity, and learning ecosystems supported by the infrastructure in Priority 1.

Priority 5: Psychosocial Recovery & Social Cohesion

- Implement trauma-focused psychosocial programs.
- Support families, youth, and communities affected by violence and displacement.
- Rebuild social infrastructure: community centers, cultural spaces, youth hubs.

This includes promoting trauma-informed and healing-centered educational approaches to integrate psychosocial support directly into learning environments (Priority 4).

Priority 6: Economic Regeneration & Green Jobs

- Enable small businesses and green entrepreneurship.
- Establish innovation hubs at universities to support post-war recovery.
- Scale green jobs in debris recycling, solar energy, water management, and sustainable construction.
- Develop community-owned enterprises to ensure livelihood restoration.

The large-scale transition to circular debris management and green technologies will require sustained international technical cooperation and knowledge-sharing partnerships to ensure long-term feasibility and scaling.

4. Governance Framework

Effective reconstruction must be locally led, transparent, and inclusive, with international support where needed. Key principles:

- Palestinian-led governance with strong involvement of local authorities, universities, civil society, and private sector.
- Transparency, accountability, and anti-corruption mechanisms.
- Community participation at all stages of planning and implementation, which is essential for local ownership, social cohesion, and restoring a sense of agency after conflict.
- International technical cooperation that strengthens, rather than replaces, local ownership.
- Development of a unified Gaza Reconstruction Master Plan grounded in Build Forward Better principles.

5. Key Recommendations

The success of all subsequent recovery actions depends on first establishing immediate safety, shelter, and essential services. The phasing below provides a strategic roadmap, but priorities in post-conflict settings are inherently flexible and will continue to shift as conditions evolve on the ground.

Immediate (0–12 months)

1. Deploy temporary learning centers and solar micro-grids for schools and hospitals.
2. Conduct debris assessment, sorting, and circular processing.
3. Provide urgent psychosocial and public health support.
4. Restore essential water and sanitation networks.
5. Establish interim digital infrastructure for education and TVET.

Medium-Term (1–3 years)

1. Launch Gaza's Build Forward Better master plan.
2. Expand renewable energy systems at scale.
3. Reconstruct green, affordable housing using recycled materials.
4. Operationalize Virtual TVET Gaza.
5. Create regional academic and technical partnerships.

Long-Term (3–10 years)

1. Transition to a green, circular economy.
2. Establish Gaza's Innovation & Sustainability Hub.
3. Build climate-resilient food, water, and energy systems.
4. Institutionalize participatory governance in planning and development.
5. Rebuild Gaza as a globally connected, climate-resilient Mediterranean city.

6. Conclusion

Reconstruction in Gaza is not just about buildings—it is about restoring society, dignity, and hope. A smart, sustainable, and resilient Gaza is achievable through coordinated governance, local leadership, green technologies, robust education systems, and international solidarity.

Reconstruction should embrace green, circular, and socially cohesive approaches, positioning Gaza as a model of transformative development, where rebuilding lives is as central as rebuilding infrastructure.