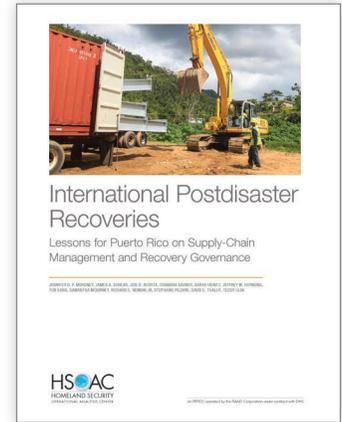


International Postdisaster Recoveries: Lessons for Puerto Rico on Supply-Chain Management and Recovery Governance



JENNIFER D. P. MORONEY, JAMES A. SCHEAR, JOIE D. ACOSTA, CHANDRA GARBER, SARAH HEINTZ, JEFFREY W. HORNUNG, YUN KANG, SAMANTHA MCBIRNEY, RICHARD E. NEIMAN JR, STEPHANIE PEZARD, DAVID E. THALER, TEDDY ULIN

www.rand.org/t/RR3042

The authors analyze how effective supply-chain management and recovery governance have worked in postdisaster settings in four countries, providing positive and cautionary lessons and good practices that may be applied to Puerto Rico's recovery from Hurricanes Irma and Maria. Field research was conducted to assess recovery challenges and recommend measures to restore lives and livelihoods, while also improving resilience to future disasters.

RESEARCH QUESTIONS

- What are the most significant challenges and shortfalls in Puerto Rico's recovery effort?
- How have efforts in supply-chain management and recovery governance been orchestrated after disasters in other island venues over the past decade?
- What lessons in disaster management from Haiti, Japan, New Zealand, and the Philippines could be relevant for Puerto Rico's ongoing efforts?

KEY FINDINGS

Supply-chain dynamics are of paramount importance in managing critical recovery resources

- Weaknesses in supply-chain planning, including projecting demand for materials and labor and prioritizing projects, create delays that hinder recovery and lead to sourcing and delivery bottlenecks.

- Workforce shortages occur at all skill levels, especially in the construction domain. Importing workers can put pressure on housing markets and drive up costs.
- Project managers have limited visibility into supply-chain flows, often focusing on specific sectors rather than cross-sector views.

Recovery governance is necessary for project management and stakeholder engagement

- A permanent recovery authority gives communities an incentive and point of contact in undertaking preparatory activities.
- Inadequate property ownership and land tenure records lead to disputes that may be difficult to resolve, and regulatory reforms may take years to implement.
- A robust methodology for assessing, monitoring, and evaluating progress based on outcomes enhances recovery.
- Community resettlements can cause significant distress, as well as frictions in communities unprepared to receive displaced residents.
- Acting quickly on the preferences of community members may not be easy due to recovery strategy, government regulations, or technical barriers. Two-way communication and transparency in accounting for funding flows are important issues in the recovery effort.

RECOMMENDATIONS

- Support local leadership of, and involvement in, recovery efforts.
- Empower municipalities to design their own reconstruction plans and implement and disburse funds for projects.
- Enable “owner-driven” reconstruction.
- Broaden systematic private-sector involvement.
- Use micro-loans to businesses to fuel recovery at the local level.
- Establish special economic zones that provide tax and regulatory incentives to attract indigenous and international companies.
- Develop and implement a comprehensive communication strategy.
- Adopt tools for planning, monitoring, and evaluating projects and initiatives.
- Develop specific, measurable, achievable, results-oriented, and time-bound objectives at all levels, supported by good data collection and monitoring practices.
- Expand public-private partnerships and consortia focusing on disaster management.
- Explore establishment of a permanent, dedicated disaster-recovery authority.
- Pursue legislative reforms to fast-track the procurement of goods and pre-position them during recovery.
- Establish material supply hubs and mechanisms for bulk commodity procurement.