

**ISLAND SECURITY POLICY INSTITUTE**

ispiglobal.com · ISPIGlobal@proton.me · (808) 999-0544

WHITE PAPER

# Supply Chain Security and Community Resilience in Island Communities

*A Policy Framework for Non-Contiguous, Geographically  
Isolated Communities Where the Supply Chain Is the  
Infrastructure*

---

**Research Pillar:** Emergency Preparedness & Island Resilience

**Document Type:** White Paper

**Author:** Warren Pulley, Founder & Executive Director

**Institution:** Island Security Policy Institute — Honolulu, Hawai'i

**Published:** 2026

**Contact:** ISPIGlobal@proton.me · (808) 999-0544 · ispiglobal.com

**Keywords:** supply chain security Hawaii, island food security policy, port security emergency preparedness, Hawaii supply chain resilience, maritime supply chain island, island emergency reserves policy, supply chain disruption Hawaii, critical infrastructure island communities

---

## RESEARCH INDEPENDENCE STATEMENT

*The Island Security Policy Institute is a nonprofit, nonpartisan research organization registered in the State of Hawaii. This publication represents ISPI's independent research and policy analysis. Views expressed do not necessarily reflect the position of any funder, sponsor, or affiliated organization. ISPI maintains full editorial independence on all research outputs. Commissioning clients do not influence ISPI's research conclusions, policy recommendations, or published findings. Full institutional credential documentation is available to qualified government agencies, foundations, and institutional partners upon formal request.*

**EXECUTIVE SUMMARY**

- **Hawaii imports between 85 and 90 percent of its food by ship. U.S. Pacific territories import virtually all pharmaceutical supplies, medical equipment, and fuel through single-port infrastructure with no alternative delivery mechanism.**
- **The continental emergency preparedness assumption of 72-hour household self-sufficiency is structurally inadequate for island communities where supply disruptions routinely exceed 72 hours and may extend to weeks in major emergency scenarios.**
- **The supply chain singularity problem — the absence of geographic redundancy that makes continental supply chains resilient — has no policy analog in existing federal emergency preparedness frameworks.**
- **ISPI's analysis identifies five policy interventions that can meaningfully reduce island supply chain vulnerability: community reserve mandates, island-specific port security frameworks, inter-island supply sharing agreements, federal formula reform, and climate disruption projection integration.**

Continental supply chain resilience policy is built on a foundational assumption that alternative supply routes exist when primary routes are disrupted.<sup>1</sup> When a hurricane closes a Gulf Coast port, cargo is rerouted through Atlantic ports. When a labor dispute disrupts West Coast ports, East Coast capacity absorbs the overflow. The resilience of continental supply chains derives from geographic redundancy. Island supply chains do not have this redundancy. The port is the supply chain.

**Hawaii's commercial food supply moves through a small number of port facilities — primarily Honolulu's Sand Island terminal — that serve as the sole entry point for the overwhelming majority of the state's food supply. A disruption at Sand Island does not redirect cargo to an alternative port. It stops the cargo.**

## I. Documented Disruption Events

---

The 2018 Sand Island terminal fire disrupted port operations for approximately three days. Retail shortages in perishable food categories were documented within 48 hours.<sup>2</sup> Consumer anxiety about supply continuity was measurable in purchasing behavior data for weeks after the disruption. A three-day disruption produced supply consequences that took significantly longer to normalize — because just-in-time inventory systems in island retail and healthcare do not maintain the buffer stocks that would absorb even brief supply disruptions. Hurricane Maria's 2017 devastation of Puerto Rico provides the most thoroughly

documented case study of island supply chain failure in the U.S. context: port infrastructure damage, shipping logistics disruption, and just-in-time inventory collapse combined to produce a humanitarian crisis that persisted long after the immediate emergency.

## II. The Port Security Dimension

---

Island ports face a dual role that continental port security frameworks do not address: simultaneously critical economic infrastructure and the primary emergency resource delivery mechanism. This dual role creates specific security requirements that standard port security frameworks, calibrated for ports that serve primarily as commercial infrastructure, do not capture.<sup>3</sup>

**ISPI's analysis identifies insider threat as the highest-probability security risk to island supply chain continuity — for the same reasons that insider threat is elevated in all small island-state organizational contexts: workforce social density, multigenerational employment, and deep community embeddedness that systematically suppresses the behavioral reporting mechanisms that insider threat detection depends on.**

## III. Climate Change and Supply Chain Vulnerability

---

Climate change is increasing the frequency and intensity of weather events that disrupt island supply chains — a documented present trend that ISPI's analysis of Hawaii and Pacific Island weather event and port disruption data identifies as a compounding factor in supply chain vulnerability.<sup>4</sup> Increasingly intense hurricane and tropical storm seasons produce more frequent severe weather events that disrupt maritime shipping routes and port operations. Sea level rise and storm surge intensification increase the vulnerability of coastal port infrastructure.

## IV. Policy Recommendations

---

1. Mandate 30-day community supply reserves for Hawaii counties and Pacific Island territories — food, pharmaceuticals, fuel, medical supplies — funded through state capital appropriations and reformed federal emergency preparedness grants.
2. Develop island-specific port security frameworks through DHS and CBP that address the dual commercial-emergency delivery role and the insider threat dynamics of small island port workforces.
3. Establish formal inter-island supply sharing agreements for Hawaii providing a mutual aid mechanism for supply disruptions affecting individual islands.

4. Reform federal supply chain resilience grant programs to incorporate island supply vulnerability factors — supply chain singularity, geographic isolation, documented disruption duration patterns — that produce allocations reflecting actual island risk.
5. Integrate climate change supply disruption projections into island emergency preparedness planning with reserve and redundancy requirements adjusted for increasing frequency and intensity of supply-disrupting weather events.

## V. Conclusion

---

When the supply chain fails in an island community, there is no alternative. The policy response is pre-positioning reserves, calibrating port security for island-specific vulnerabilities, and reforming federal frameworks to recognize the supply chain conditions that island communities actually face. ISPI accepts commissions for supply chain security assessments, emergency reserve policy development, and port security framework design. Contact [ISPIGlobal@proton.me](mailto:ISPIGlobal@proton.me) or visit [ispiglobal.com/commission](http://ispiglobal.com/commission).

---

### NOTES AND REFERENCES

---

#### ABOUT THE ISLAND SECURITY POLICY INSTITUTE

The Island Security Policy Institute (ISPI) is a nonprofit, nonpartisan research organization based in Honolulu, Hawaii. ISPI produces practitioner-led research, policy analysis, training programs, and commissioned research on public safety, emergency preparedness, insider threat, and security policy for island and coastal communities worldwide. ISPI is registered as a federal contractor on SAM.gov under NAICS 541720. Warren Pulley, Founder & Executive Director.

Website: [ispiglobal.com](http://ispiglobal.com) · Email: [ISPIGlobal@proton.me](mailto:ISPIGlobal@proton.me) · Phone: (808) 999-0544 · LinkedIn: [linkedin.com/in/warpul13](https://www.linkedin.com/in/warpul13)

© 2026 Island Security Policy Institute. All rights reserved. This publication may be reproduced for noncommercial purposes with full attribution to ISPI.