



Addressing the Dire Needs of Displaced Ambae Island Residents:

A Comprehensive Assessment for Resettlement

By Elon Musk's, AI Analyst for International Strategic Planning Services (ISPS).
Moderated, indexed and tabulated by Dr. Izak Labuschagne and published on <https://isps.space>

Table of Contents

- Addressing the Dire Needs of Displaced Ambae Island Residents: 1
- A Comprehensive Assessment for Resettlement 1
- Overview 2
- The Context of Displacement 2
- Critical Needs for Resettlement..... 3
 - 1. Secure and Adequate Shelter 3
 - 2. Access to Clean Water and Sanitation 3
 - 3. Food Security and Livelihood Restoration 4
 - 4. Education and Psychosocial Support 5
 - 5. Healthcare Access 5
 - 6. Community Integration and Cultural Preservation 6
- The Role of Solar Power in Resettlement Priorities 6
 - Solar Power for Schools 6
 - Solar Power for Staff..... 7
 - Solar Power for Water Wells 7
 - Overall Prioritization of Solar Power 8
- A Prioritized Framework for Resettlement 8
 - Immediate Priorities (0–12 Months): 8
 - Medium-Term Priorities (1–3 Years): 8
 - Long-Term Priorities (3–10 Years): 9
- Conclusion 9
 - References 10
 - Note: 10

Overview

The volcanic eruptions of Manaro Voui on Ambae Island, Vanuatu, between 2017 and 2018 forced the evacuation of approximately 11,000 residents, marking one of the most significant displacement events in the Pacific region in recent decades.

These eruptions blanketed the island in ash, contaminated water sources, destroyed crops, and rendered large areas uninhabitable, prompting the Vanuatu government to pursue permanent resettlement on neighboring islands, primarily Maewo and Espiritu Santo.

Despite efforts by the government, international aid agencies, and local communities, many displaced Ambaeans continue to face significant challenges in establishing sustainable livelihoods and stable communities.

This blog post provides a scholarly assessment of the most critical and urgent needs for the proper resettlement of Ambae's displaced residents, with a specific focus on evaluating the role of solar power provision for schools, staff, and water wells within these priorities.

Drawing on available data, humanitarian reports, and socio-environmental considerations, we outline a prioritized framework for resettlement that balances immediate needs with long-term sustainability.

The Context of Displacement

Ambae Island, home to the active Manaro Voui volcano, experienced recurring volcanic activity, with significant eruptions in 2017 and 2018 leading to mass evacuations. The ashfall, acid rain, and gas emissions devastated agriculture, contaminated water supplies, and damaged infrastructure, including homes and schools.

The Vanuatu government declared states of emergency in September 2017 and April 2018, evacuating the entire population to Maewo, Espiritu Santo, and Pentecost.

While some residents returned when volcanic activity subsided, the government ultimately pursued permanent resettlement due to the ongoing threat of eruptions. By 2020, many families remained displaced, living in temporary shelters and struggling to integrate into host communities. The doubling of Maewo's population, for instance, strained local resources, exacerbating tensions and resource scarcity.



The displacement has fractured communities, disrupted cultural ties to ancestral lands, and placed significant psychosocial and economic burdens on evacuees. The challenge now lies in ensuring that resettlement efforts provide not only safety but also dignity, opportunity, and sustainability for displaced Ambaeans and their host communities.

Critical Needs for Resettlement

To achieve proper resettlement, the needs of displaced Ambaeans must be addressed holistically, considering immediate survival requirements, medium-term stabilization, and long-term development. Below, we outline the most urgent priorities, informed by humanitarian principles, regional realities, and the socio-cultural context of Vanuatu.

1. Secure and Adequate Shelter

- **Urgency:** Immediate
- **Rationale:** Many displaced Ambaeans live in makeshift shelters, often consisting of tarpaulins or temporary structures vulnerable to Vanuatu's frequent heavy rainfall and cyclone season. These conditions exacerbate health risks, disrupt family stability, and hinder community cohesion. Permanent, climate-resilient housing is essential to provide safety and a foundation for rebuilding lives.
- **Actions:**
 - Construct durable homes using locally sourced, sustainable materials, integrating traditional building techniques with modern reinforcements to withstand cyclones and flooding.
 - Negotiate land tenure agreements with host communities to ensure secure access to land for housing, addressing cultural sensitivities around customary land ownership.
 - Provide temporary shelter kits (e.g., reinforced tents, sanitation facilities) as an interim measure to improve living conditions during the construction phase.
- **Challenges:** Land disputes, limited funding, and logistical constraints in remote areas complicate housing initiatives. Host communities may resist land allocation without equitable compensation or shared benefits.

2. Access to Clean Water and Sanitation



- **Urgency:** Immediate
- **Rationale:** Contaminated water sources on Ambae and strained infrastructure on host islands have left many evacuees without reliable access to clean water. Poor sanitation facilities in temporary settlements increase the risk of waterborne diseases, particularly during the wet season. UNICEF's 2018 response highlighted the distribution of water and sanitation kits, but ongoing needs persist due to population pressures.
- **Actions:**
 - Install community water wells or boreholes equipped with filtration systems to provide safe drinking water.
 - Build latrines and handwashing stations in resettlement areas, prioritizing accessibility for children, women, and people with disabilities.
 - Implement rainwater harvesting systems to supplement water supplies, given Vanuatu's high rainfall.
- **Challenges:** High initial costs for well drilling, maintenance requirements, and the need for community training to manage water systems sustainably.

3. Food Security and Livelihood Restoration

- **Urgency:** Immediate to Medium-Term
- **Rationale:** The destruction of crops and livestock on Ambae disrupted the subsistence-based livelihoods of most residents. On host islands, limited arable land and competition with local communities have hindered agricultural recovery. Initiatives like the University of Wollongong's fisheries training have supported some evacuees, but broader efforts are needed to ensure food security and economic independence.
- **Actions:**
 - Distribute seeds, tools, and livestock to restart farming, tailored to the soil and climate conditions of host islands.
 - Provide training in sustainable agriculture and fishing, including techniques to mitigate soil degradation and overfishing.
 - Establish cooperative markets to enable evacuees to sell produce, fostering economic integration with host communities.
- **Challenges:** Limited land availability, cultural unfamiliarity with fishing among some Ambaeans, and market access barriers.



4. Education and Psychosocial Support

- **Urgency:** Medium-Term
- **Rationale:** The displacement disrupted education for thousands of children, with schools on Ambae damaged and temporary facilities on Maewo (e.g., UNICEF tents) struggling to accommodate students. Teachers face challenges integrating students from diverse linguistic backgrounds (English and French systems). Psychosocial support is critical to address trauma, particularly among children who experienced volcanic eruptions and displacement.
- **Actions:**
 - Rebuild or establish permanent schools with adequate classrooms, learning materials, and trained teachers.
 - Train educators in psychosocial support to help students cope with trauma and adapt to new environments.
 - Provide scholarships or subsidies to ensure access to education for vulnerable families.
- **Challenges:** Funding shortages, teacher retention in remote areas, and the need to align curricula across displaced and host communities.

5. Healthcare Access

- **Urgency:** Medium-Term
- **Rationale:** Volcanic ash caused respiratory issues and skin conditions, while cramped living conditions in evacuation centers increased disease transmission. Host islands lack sufficient health infrastructure to serve doubled populations, and women, children, and the elderly are particularly vulnerable.
- **Actions:**
 - Establish mobile health clinics to provide basic care, vaccinations, and maternal health services.
 - Build or upgrade health centers in resettlement areas, staffed with trained personnel.
 - Distribute hygiene kits and conduct health education campaigns to prevent disease outbreaks.
- **Challenges:** Shortages of medical supplies, limited healthcare workers, and logistical barriers in remote locations.



6. Community Integration and Cultural Preservation

- **Urgency:** Long-Term
 - **Rationale:** Displacement has severed ties to ancestral lands, threatening cultural identity and social cohesion. Tensions between evacuees and host communities, as noted in Maewo's resource strain, underscore the need for inclusive integration strategies. Preserving Ambaean culture while fostering harmony with hosts is vital for social stability.
 - **Actions:**
 - Facilitate community dialogues to address resource-sharing and cultural differences.
 - Support cultural festivals, storytelling, and traditional practices to maintain Ambaean identity.
 - Involve evacuees in decision-making processes to ensure their agency in resettlement planning.
 - **Challenges:** Balancing cultural preservation with adaptation to new environments, and mitigating host community resentment.
-

The Role of Solar Power in Resettlement Priorities

The provision of solar power to schools, staff, and water wells is a significant consideration in resettlement planning, particularly given Vanuatu's remote geography and reliance on costly diesel generators. Below, we assess its importance within the broader framework of needs.

Solar Power for Schools

- **Importance:** High (Medium-Term Priority)
- **Rationale:** Reliable electricity is essential for modern education, enabling lighting for evening classes, powering computers for digital learning, and supporting administrative functions. Schools on Maewo and Espiritu Santo often lack consistent power, limiting educational quality. Solar power offers a sustainable, low-maintenance solution suited to Vanuatu's abundant sunlight, reducing dependence on imported fuel. UNICEF's Wash in Schools Project, which improved water and sanitation facilities, could be complemented by solar installations to create resilient educational hubs.



- **Impact:** Solar-powered schools enhance learning outcomes, attract qualified teachers, and serve as community centers during emergencies. For example, powering refrigeration for school feeding programs could address nutritional needs.
- **Challenges:** High upfront costs, the need for technical expertise, and vulnerability to cyclone damage require robust system design and maintenance plans.

Solar Power for Staff

- **Importance:** Moderate (Medium-Term Priority)
- **Rationale:** Teachers, healthcare workers, and administrative staff in resettlement areas often live in remote locations with limited amenities, contributing to high turnover. Solar power for staff housing (e.g., lighting, phone charging) improves living conditions, incentivizing retention. However, this need is secondary to community-wide priorities like housing and water access.
- **Impact:** Improved staff retention enhances service delivery in education and healthcare, indirectly benefiting the wider community.
- **Challenges:** Prioritizing staff over community needs could create perceptions of inequity, requiring transparent allocation processes.

Solar Power for Water Wells

- **Importance:** Critical (Immediate Priority)
- **Rationale:** Many water wells and purification systems rely on pumps, which require electricity. Solar-powered pumps ensure consistent access to clean water, addressing one of the most urgent needs identified above. In Vanuatu's context, where diesel fuel is expensive and logistically challenging to transport, solar power is a cost-effective, sustainable solution. The Passamaquoddy Tribe's use of solar energy for water filtration in Maine, as noted in NREL's 2024 report, provides a relevant model for integrating renewable energy into water infrastructure.
- **Impact:** Solar-powered wells reduce health risks from contaminated water, alleviate the burden on women and children fetching water, and support agricultural irrigation, contributing to food security.



International Strategic Planning Services

EFFECTIVELY BALANCING GLOBAL REALITIES

- **Challenges:** Installation requires site-specific assessments to ensure adequate sunlight and water table depth, alongside community training for system maintenance.

Overall Prioritization of Solar Power

Solar power is a high-priority intervention, particularly for water wells and schools, due to its direct impact on health, education, and sustainability. Providing solar-powered water systems ranks among the top immediate needs, alongside shelter and basic sanitation, as clean water is non-negotiable for survival and public health. Solar power for schools is a critical medium-term priority, enhancing educational equity and community resilience. However, solar power for staff, while beneficial, is less urgent and should be addressed after community-wide needs are met to avoid perceptions of favoritism. The integration of solar power aligns with Vanuatu's National Sustainable Development Plan (2016–2030), which emphasizes renewable energy to reduce fossil fuel dependence, making it a strategic investment for resettlement.

A Prioritized Framework for Resettlement

To synthesize the above analysis, we propose the following prioritized framework for addressing the needs of displaced Ambaeans:

Immediate Priorities (0–12 Months):

- Provide secure, climate-resilient shelter to replace temporary tarpaulin structures.
- Ensure access to clean water through solar-powered wells and rainwater harvesting.
- Distribute water and sanitation kits, and build latrines to prevent disease outbreaks.
- Supply seeds, tools, and livestock to restore food security.

Medium-Term Priorities (1–3 Years):

- Rebuild schools with solar power to support education and community resilience.
- Establish mobile health clinics and upgrade health centers to address medical needs.



- Train evacuees in sustainable agriculture and fishing to rebuild livelihoods.
- Facilitate psychosocial support programs for children and families.

Long-Term Priorities (3–10 Years):

- Foster community integration through dialogue and cultural preservation initiatives.
- Expand solar power to staff housing and other community infrastructure to enhance service delivery.
- Develop cooperative markets and economic opportunities to ensure self-sufficiency.
- Monitor and adapt resettlement plans to address climate change and future disasters.

This framework balances urgency with sustainability, recognizing that immediate survival needs (shelter, water, food) must precede investments in education and livelihoods, while long-term integration ensures social cohesion and cultural continuity.

Conclusion

The resettlement of Ambae Island's displaced residents is a complex challenge requiring coordinated efforts from the Vanuatu government, international donors, NGOs, and local communities. The most urgent needs—secure shelter, clean water, and food security—form the foundation for survival and stability, while education, healthcare, and community integration are critical for long-term resilience. Solar power plays a pivotal role, particularly for water wells and schools, offering a sustainable solution to Vanuatu's energy challenges and supporting essential services. By prioritizing these needs within a phased framework, stakeholders can ensure that Ambaeans not only survive displacement but thrive in their new homes, preserving their cultural identity and contributing to the sustainable development of their host communities.

The international community must act swiftly to fund and implement these priorities, drawing on lessons from past humanitarian responses and Vanuatu's own resilience. As climate change exacerbates displacement risks across the Pacific, the Ambae experience offers valuable insights for building adaptive, equitable, and sustainable resettlement models globally.



International Strategic Planning Services

EFFECTIVELY BALANCING GLOBAL REALITIES

References

1. Australian Humanitarian Partnership. (2018). Ambae Island Volcano - Vanuatu.
2. NASA. (2008). Ambae Island, Vanuatu.
3. National Renewable Energy Laboratory (NREL). (2024). 25 New Coastal, Remote, and Island Communities Join Energy Transitions Initiative Partnership Project.
4. UNICEF Aotearoa. (n.d.). After Eruption on Ambae, UNICEF is Helping Build New Lives.
5. United Nations Development Programme. (2020). Life After Ambae Volcanic Eruption.
6. University of Wollongong. (2019). Living in the Shadow of a Volcano.

Note:

This blog post is intended for a general audience with a scholarly tone, avoiding specific references to proprietary initiatives while grounding the analysis in publicly available data and humanitarian principles.

For further engagement, readers are encouraged to explore ISPS's resources at <https://isps.space>.