



THE CLIMATE STRONG ISLANDS NETWORK



The Climate Strong Islands Network
**NATIONAL ISLANDS
POLICY FRAMEWORK**

How U.S. Islands can lead on climate resilience
through better public policy

 THE OCEAN FOUNDATION





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Our Mission

The Climate Strong Islands Network's (CSIN) mission is to build an effective coalition of island entities that work across sectors and geographies in the continental U.S. and the nation's states and territories located in the Caribbean and Pacific.

The main objectives of the Climate Strong Islands Network (CSIN) are to drive more resources locally to islands and advocate for policy and legislation that represents the local needs and opportunities for U.S. islands. CSIN prioritizes linking U.S. island champions, on-the-ground organizations, and local stakeholders to each other to accelerate progress, share lessons and knowledge, and build lasting trust to support ongoing cooperation.

Being “Climate Strong” embodies island resiliency, which is both social and environmental and should recognize the value island communities have to offer the broader world. CSIN is a formal partner of the Local2030 Islands Network, recognizing Local2030’s focus on supporting locally-driven, culturally-informed action on climate and sustainability as a crucial pathway for regional, national, and international cooperation to occur. CSIN will continue to work within and beside the Local2030 Islands Network to advocate for effective island-aware policies and help guide and support local project implementation.





The rooftop solar array at the Cranberry Isles Fishermen's Co-op on Islesford, Maine. © Jack Sullivan / Island Institute



Introduction

WHAT THE FEDERAL GOVERNMENT CAN DO FOR ISLAND COMMUNITIES

Islands are areas of land surrounded by water. Each island varies in size, population, climate, and location. From the Arctic to the Caribbean, U.S. islands are spread out across the world and face unique climate realities. U.S. Islands are culturally distinctive, ecologically diverse, and especially vulnerable to the adverse impacts of climate change. Islands experience various challenges that are difficult to address through “one-size fits all” federal policies due to their geographic isolation and other unique circumstances.

Policies applied to islands require an extra level of scrutiny and local island community input and may necessitate exceptions or exemptions. Policy implementation also presents a challenge to each island community, as U.S. islands are governed by various entities. Some islands comprise an entire state, like Hawaii. Some islands are U.S. territories, like Puerto Rico, Guam, the U.S. Virgin Islands, Northern Mariana Islands, or American Samoa. Some islands are governed by states, like the many islands off the Atlantic and Pacific Coasts. And some islands fall under the jurisdiction of tribal governments, like the Pribilof Islands off the coast of Alaska. With these varying levels of governance, U.S. islands operate under different systems and with different levels of support, which becomes especially complex when it comes to taking the actions needed to prepare islands for climate change.

Sunrise in Sitka, Alaska, located on Baranof Island. © filo / iStock





The working waterfront of Petersburg, Alaska, located on the northern point of Mitkof Island. © Florence-Joseph McGinn / Shutterstock

When islands become more climate resilient, they become more self-sufficient and less vulnerable as a result. To help islands become more climate resilient, they must be supported in meeting their basic needs and planning for the future in seven **Key Issue Areas: Clean Energy, Watershed Planning, Food Security, Disaster Preparedness, a Sustainable Marine Economy, Waste Management, and Transportation.** These Key Issue Areas consistently challenge island communities and present opportunities to advance policies that will help island communities become climate resilient. Each island community is unique, with differing geographies, resources, and threats, making it imperative that policies advanced in each of the Key Issue Areas remain locally and culturally relevant to each specific island community. The federal government must listen to the needs of island communities and support islands by empowering local knowledge and expertise to combat the mounting challenges each island community faces and will continue to face in the future.

CLIMATE RESILIENCE IS ECONOMIC RESILIENCE

Underlying the importance of islands becoming climate resilient is the need for islands to become economically resilient as well. Achieving economic resiliency and stability enables island communities to prepare for and recover from natural disasters, making them more climate resilient. Island communities must find ways to remain both independent and self-sufficient, while strategically engaging with government agencies to ensure policies support their economic goals. To do so, islands must diversify their revenue streams, strive to create and support circular economies, and engage directly in local, state, regional, and federal policy making processes. **Policy and investment decisions impacting island economies should not be made without direct input and involvement from island communities to ensure these decisions are culturally and locally relevant and address the unique needs of islands.**

Island communities can lead by example, providing innovative, community driven solutions that can be applied to mainland communities, particularly in rural areas that face similar infrastructure and logistical challenges. The time to act is now. Islands need policy makers to work with a sense of urgency to address the critical needs of island communities and implement best practices for a sustainable future.

Mackinac Island lighthouse
on Lake Huron, Michigan.
© Michael Deemer / Shutterstock



Cross-Cutting Themes



A seagull flies above the dock on Vinalhaven Island, Maine.
© Jay Fleming Photography

Life on an island poses unique challenges that make achieving climate resilience arduous. In order to become climate resilient, islands must address the cross-cutting themes of representation, capacity, and access.

Through extensive research and interviews, a number of cross-cutting themes emerged that highlight these challenges, many of them inextricably linked and connected to the seven *Key Issue Areas* specific to climate resiliency. The overall focus of this policy framework is to identify the challenges to becoming climate resilient for island communities and then recommend policies that can be enacted to assist island communities in achieving climate resiliency. In order to achieve this, however, a number of basic needs must be satisfied first. The cross-cutting themes of representation, capacity, and access are challenges that all island communities struggle with and must be acknowledged and addressed in order to fully understand and implement policies in the seven **Key Issue Areas** to help islands achieve climate resiliency.



“When federal policies affecting islands are made, federal officials discuss what happens with islanders after the discussion. They push through with their agenda, leaving islanders’ concerns and grievances unanswered. Free prior and informed consent equals self-determination. If plans are to be discussed, then truly discuss with us; translate and talk to the leaders. Don’t host a one-day conference at a hotel and say that’s enough. Truly hear our concerns. Learn from islands. Many solutions to climate change’s problems are here, within the islands. That is climate justice.”

— [The Honorable Sheila Babauta](#), Northern Mariana Islands, Capitol Hill Ocean Week 2021

REPRESENTATION

Island voices must be heard and taken into consideration in federal decision-making processes. Many of the factors standing in the way of climate resilience are out of the control of local island governments and citizens because they are governed by Congress and federal agencies. As a result, island communities have not been afforded adequate opportunities to make the critical long-term, strategic decisions that will guide the future of their communities. Congress and federal agencies are generally ill-equipped to understand and handle the unique challenges faced by islands. This lack of understanding has led to ineffective policy implementation for these communities. Federal agencies have a responsibility to engage more directly with island communities as they establish and implement policies that impact islands. To address this, the federal government must make adjustments to ensure that a) island voices are heard during policy making processes, b) adequate consideration is given to the unique challenges of island communities, and c) island communities are directly engaged in the implementation of policies. Taking these steps will empower island communities to engage in the policy process and will ensure that future policies can be realistically deployed in island communities, which will go a long way to ensuring islands achieve long-term climate resiliency.

DEVELOPMENT OF ISLAND CAPACITY

The greatest resource that islands have are the people who live on islands and work for their continued success. For U.S. islands to become climate resilient, there must be significant investments made in the people and the capacity of communities to support their economies and environments. Capacity development means building and strengthening the island workforce and island networks. Building island capacity can be done through training and workforce development to help local islanders become fluent in new skill sets and technologies and to keep those skills current. Appropriately priced and easy to maintain technology is key on an island where supplies may be expensive and replacement parts hard to obtain. Strengthening island capacity goes beyond knowledge transfer and incorporates partnerships, collaboration, and co-financing between private, public, and nonprofit sectors to achieve shared goals. Island communities share many of the same challenges, so creating spaces and opportunities for an exchange of ideas and expertise between islands is crucial to building resilience and innovation.

ACCESS TO INFORMATION AND TECHNOLOGY

U.S. islands cannot become climate resilient without reliable and affordable access to information and technology, including broadband internet. How islands approach becoming climate resilient largely depends on their ability to access necessary support, resources, and technical expertise. Without it, islanders lack access to innovative climate solutions, further creating barriers and exacerbating their vulnerabilities. Enhancing island technical expertise and implementing new technologies equips communities with the tools to integrate sustainable solutions into practice. Given their geographic isolation, islands need to be connected to other islands and their networks to collaborate, share, and learn about solutions to their challenges.



Key Issue Areas

Islands need support in advancing specific policies in seven **Key Issue Areas**. Each key issue area includes policy recommendations to achieve climate resiliency. While not every policy recommendation will be applicable to every U.S. island community, because every island is unique, each policy recommendation should be evaluated for its potential to help individual U.S. island communities advance their efforts to become more climate resilient.

01 Clean Energy | **02** Watershed Planning | **03** Food Security | **04** Disaster Preparedness | **05** Marine Economy | **06** Waste Management | **07** Transportation





01

Clean Energy

In order to become climate resilient, U.S. islands need local, independent, reliable, and affordable energy generation and community-based distribution systems that are locally informed and responsive to local needs.

Islands are naturally more vulnerable to the effects of natural disasters so they need self-sufficient and reliable energy systems to ensure they can continue to serve their community even after a natural disaster. Because of their unique geography and populations, islands are the ideal place for renewable energy technologies and innovations. Islands will need continued investment, support, and technical training to transition to a clean energy future. Technical training allows for islands to develop their existing workforce with renewable energy expertise while meeting the unique needs of their community. Developing individual island capacity decreases islands' reliance on fossil fuels and enables them to become energy independent. Energy systems that work on an island could be applied to other rural communities across the continental United States to help those rural communities become more climate resilient.

A recreational boater catches a glimpse of the Fox Island wind turbines in Maine.
© Douglas Rissing / iStock



CLEAN ENERGY

The following federal policy recommendations will help U.S. islands achieve climate resilience

- 1. Federal government support for island communities in establishing and achieving clean energy or net zero goals.**
 - a. Funding for technical assistance for island communities to develop clean energy or net zero community action plans.
 - b. Support for the creation and funding of a measurement tool or dashboard for tracking clean energy data across island communities to use for developing community clean energy action plans and measuring success.
- 2. Federal clean energy policies and recommendations that are locally and culturally relevant and consider local expertise.**
 - a. Ensure direct and consistent communication between federal government agencies and island communities to share best practices and to help islands discern the best energy system to meet their specific needs.
 - b. Require robust island community (including Indigenous community where applicable) participation processes in all federal government energy-related projects, agreements, and policy decisions impacting island communities.
 - c. Appoint island community liaisons to relevant working groups and advisory boards created by federal government agencies and impacting energy policies.
 - d. Require a community-informed analysis of areas of cultural and community significance as well as areas of potential coastal armoring, carbon sequestration, or wetland restoration to avoid before siting energy projects.
 - e. Evaluate potential modifications to the Jones Act to ensure it does not create a barrier to the efficient distribution of materials needed for a clean energy transition.
 - f. Reevaluate trade restrictions, customs procedures, and import taxes that create barriers to the entrance of supplies and equipment necessary for a clean energy transition.
 - g. Expand efforts to address the unique energy needs of island communities and opportunities for stakeholder collaboration through federal initiatives such as the Department of Energy's Energy Transitions Initiative and the Energy Transitions Institute Partnership Projects.
 - h. Continue the use of the Energy Transitions Initiative: Islands Playbook and expand its use in island communities, including U.S. Territories.
 - i. Establish and fund a U.S. Island Communities Clean Energy Working Group as part of President Biden's Justice40 Initiative or any future White House energy-related initiatives, to explore the unique energy needs of island communities, the barriers to clean energy deployment, and the opportunities for investment in clean energy projects. Ensure representation of U.S. Territories and Indigenous and Native people on island communities in the working group.
 - j. Include island communities in the Department of Energy's (DOE) Environmental Justice Implementation Plan.

- 3. Develop effective federal funding mechanisms to incentivize and support clean energy deployment and energy storage solutions on islands.**
 - a. Establish a position within the DOE Loan Program Office to work specifically with island communities to scale projects and develop financing options for smaller projects.
 - b. Establish tax incentives to encourage investments in island community energy projects.
 - c. Ensure island communities are considered underserved or frontline communities and included in the DOE Energy Storage for Social Equity Initiative and any other federal government program that provides energy assistance to underserved or frontline communities.
- 4. Expand DOE's authority to finance clean energy projects in frontline communities, including island communities.**
- 5. Establish programs to operate clean energy related pilot programs on U.S. islands to advance projects like microgrids and small-scale power generation.**
- 6. Support an energy transition that does not rely on non-renewable ocean resources or damage biodiversity.**
- 7. Establish and fund a consortium to support the collaboration of federal agencies with local island governments, Indigenous communities, stateside governments, NGOs, and local community stakeholders to develop and manage island-wide land use planning efforts including the siting of clean energy projects.**
 - a. Such land use planning should include managing watershed conservation and restoration funding as well. (See [Watershed Planning](#), p. 16.)



A long row of solar panels is installed in an open field in Hawai'i. © kirkikis / iStock



02

Watershed Planning

In order to become climate resilient, U.S. islands need to use and develop available land within their islands' watersheds in ways that make them as prepared as possible to weather severe storms and sea level rise.

Sustainable land use planning is imperative for resilient communities when armoring themselves against natural disasters and hazards. Island communities are often tempted to prioritize revenue generating projects that benefit sectors like tourism over key infrastructure investments. But these short-term land use decisions can have significant long-term impacts on water quality and fisheries resources. Island communities should be incentivized to protect and invest in natural buffers like forests, wetlands, corals, mangroves, and living shorelines, and should prioritize protecting natural resource areas that improve resilience over short-term development projects. Effective watershed planning must prioritize long-term goals over short-term solutions in order to protect island communities from the severe impacts of natural disasters and climate change. Without watershed management plans, polluted runoff can damage valuable ecosystems and natural filters that protect islands from natural disasters.

Highway 165, on the northern coast of Puerto Rico, runs parallel to Parchola Beach in Dorado.
© Javier Cruz Acosta / Shutterstock



WATERSHED PLANNING

The following federal policy recommendations will help U.S. islands achieve climate resilience

- 1. Support island communities in managing their existing terrestrial resources and degraded lands.**
 - a. Require robust island community (including indigenous community where applicable) participation processes in all federal government coastal and watershed related projects, agreements, and policy decisions impacting island communities.
 - b. Provide incentives for island communities to prioritize land conservation over development, including protecting lands like forests, wetlands, and farms through agricultural and conservation easement programs.
 - c. Provide federal funding and technical assistance for restoration efforts like riparian buffer plantings focused on restoring entire watersheds instead of a patch work approach focused on sections of streams.
 - d. Support island communities with funding and technical assistance to establish water quality monitoring programs to measure long-term trends.
 - e. Support the restoration and conservation of ephemeral streams that offer natural flood control.
 - f. Provide funding for island watershed education programs that focus on land use impacts on water quality for students and community members.
 - g. Establish funding streams to support island monitoring systems and island data collection by universities and non-profit organizations to help islands track sea-level rise and island land-use data.
 - h. Establish requirements for infrastructure rebuilding and upgrading efforts to meet island climate resiliency goals.
- 2. Support the specific needs of island communities through existing coastal management programs.**
 - a. Consider adding estuaries located on islands for inclusion in the National Estuary Program.
 - b. Ensure robust and consistent funding for existing and future coastal management programs, with carve outs for islands.
 - c. Create a working group within the EPA National Estuary Program that focuses on the specific estuary needs of island communities and ensures these needs are represented in the Comprehensive Conservation and Management Plans.
 - d. Amend the Coastal Zone Management Act to support collaborative planning efforts that address the specific and unique needs of island communities in the National Coastal Zone Management Program, the National Estuarine Research Reserve System, National Estuary Program and the Coastal and Estuarine Land Conservation Program.
- 3. Establish and fund a consortium to support the collaboration of federal agencies with local island governments, Indigenous communities, stateside governments, NGO's, and local community stakeholders to develop and manage island-wide land use planning efforts, including managing watershed conservation and restoration funding. Such land use planning should consider the siting of clean energy projects as well. (See [Clean Energy](#), p. 12.)**

Mangrove forests are crucial ecosystems in the Caribbean, protecting coastal communities from erosion and flooding. © damocean / iStock





03

Food Security

In order to become climate resilient, U.S. islands need locally grown agriculture programs and reliable food storage and distribution systems to become less dependent on expensive imports, become more self-reliant, and ensure consistent access to food, even during and after a natural disaster.

U.S. islands import between 70–90 percent of their food at a high cost to residents. When natural disasters strike, island communities are vulnerable to food shortages despite having arable land to grow crops and raise livestock, and harvestable seafood available offshore. As the reliance on food grown on the mainland U.S. has increased, locally grown food networks and distribution systems have decreased. Islands need support in transitioning their current food systems to more self-sustaining food economies, diversifying their food choices and sources. By making this transition, island communities can support locally produced foods that will increase island food security while simultaneously adding new sectors to the island economy. However, not all island food security issues will be solved by growing food on islands, and not all islands have the climate and land needed to grow food. So, transportation, storage, distribution, and refrigeration issues must also be addressed to achieve sustainable, healthy, climate resilient food systems.

Harvesting vegetables at Rio Chiquito Orchards, in Luquillo, Puerto Rico. © Alex Diaz / iStock



FOOD SECURITY

The following federal policy recommendations will help U.S. islands achieve climate resilience

1. Support the establishment of locally grown agriculture programs that consider local knowledge and expertise.

- a. Ensure island community representation on USDA boards, commissions and equivalent and create an Island Farming and Ranching Committee to ensure island specific needs are being met by USDA.
- b. Provide funding and support for island agricultural organizations to operate regenerative agriculture programs.
- c. Provide access to U.S. Department of Agriculture (USDA) Beginning Farmers and Ranchers Loans for new farmers specifically in island communities.
- d. Ensure access to Emergency Farm Loans after disasters, as well as programs such as Minority and Women Farmers and Ranchers and Native American Loans, to assist farmers and ranchers specifically in island communities.
- e. Re-evaluate U.S. Food & Drug Administration (FDA) grant programs and requirements to ensure island farmers are not being excluded.
- f. Engage local colleges and universities in agriculture policy development on island communities.
- g. Work with island community non-profits to understand and address the needs of small agricultural producers.
- h. Provide technical assistance and financial support to island soil and conservation districts.

2. Improve food storage and distribution systems.

- a. Work with local communities to audit current food transportation and distribution systems and redesign those systems to allow for local island exceptions.
- b. Consider that for some islands, local food production may not be an option, so prioritize “local” foods, grown within 100 miles of an island.
- c. Evaluate potential modifications to the Jones Act to ensure it doesn’t create a barrier to the timely distribution of food to islands, especially during and after a natural disaster.
- d. Reevaluate trade restrictions, customs procedures, and import taxes that adversely impact efforts in U.S. territories like Puerto Rico and Guam to access and store food.
- e. Provide resources and assistance to improve transportation systems to move food to and throughout island communities, including fortifying waterfront and port infrastructure to be more climate resilient and accessible.
- f. Assist islands in building storage and refrigeration capacity to ensure island communities have the necessary food resources they need, especially in disaster scenarios.

3. Support sustainable, long-term land-use planning and practices.

- a. Provide tax incentives to land owners on island communities that prioritize land uses that support farms, greenhouses, and food storage.
- b. Work with island land-use planners, energy developers, and local farmers to incentivize the co-location of renewable energy and agriculture.
- c. Provide incentives that prioritize the use of lands for agricultural resources over commercial development.



APPLE
MANGO

Shurwei
Avocado

GUAVA
(PINK INSIDE)

Avocado



04

Disaster Preparedness

In order to become climate resilient, U.S. islands need a functional and prompt response to any natural disaster with support from the federal government that recognizes the unique challenges islands face when responding to natural disasters.

Despite years of relief aid and funds from the federal government, islands are still not climate resilient or prepared to withstand strong hurricanes and tropical storms. In the aftermath of Hurricanes Maria and Irma in 2017, islands remain ill equipped, vulnerable, and severely under prepared for the next, stronger storm. Incoming funds must be spent in a way that addresses islands' climate resilient goals, and any rebuilding effort must contribute a net positive impact towards climate change. Part of building up island capacity also includes supporting the capabilities of the island workforce and ensuring island government structures are capable of implementing climate resilient policies focused on preparedness.

Residents of Cruz Bay walk past the aftermath of Hurricane Irma in the U.S. Virgin Islands. © cdwheatley / iStock



DISASTER PREPAREDNESS

The following federal policy recommendations will help U.S. islands achieve climate resilience

- 1. Incorporate island community knowledge and expertise into federal disaster response policies.**
 - a. Amend the Federal Emergency Management Agency (FEMA) disaster handbook and planning guides to require local input and collaboration.
 - b. Collaborate with islands to ensure they are equipped to effectively and efficiently implement disaster preparedness policies.
- 2. Ensure that funding mechanisms for disaster preparedness and response programs work for island communities.**
 - a. Create an island insurance program to address the unique needs of island communities and ensure insurance policies do not stall recovery efforts.
 - b. Amend FEMA policies to ensure island community members who do not own their properties or hold title to their land can still receive disaster assistance to help them recover and rebuild after a disaster.
 - c. Create a fund that provides assistance to island residents to build or rebuild homes, schools, hospitals, and other critical infrastructure that are resilient to future disasters.
 - d. Direct FEMA to make funds for disaster preparedness available through direct grants to non-profit organizations specifically targeted to help fund island community resiliency efforts.
- 3. Require federal agencies to implement best practices for disaster preparedness and response efforts to ensure mistakes of the past are not repeated.**
 - a. Establish a Congressional Advisory Commission and a Presidential Commission to investigate and review FEMA's response to natural disasters impacting island communities since 2000 and release a report detailing the effectiveness of response efforts and recommendations for modification to disaster response policies to better address the needs of island communities experiencing natural or other disasters.
 - b. Evaluate potential modifications to the Jones Act to ensure it doesn't create a barrier to providing necessary, effective, and timely disaster assistance and relief to island communities in the immediate aftermath of a disaster.
- 4. Require that all building, re-building, re-designing, or upgrading of structures and infrastructure must be done in a way that ensures they can withstand hurricanes and meet each island's climate resiliency goals, and ensure that islands have the funding and support to meet those requirements.**
- 5. Require a robust and quantitative consideration of resilient relocation of structures damaged or destroyed in natural disasters.**

Coastal erosion along Ocean Park Beach in San Juan, Puerto Rico after Hurricane Maria. © Jennifer Blount / iStock





05

Marine Economy

In order to become climate resilient, U.S. islands need marine protected areas, resilient infrastructure, and sustainable, thriving fisheries to support their marine economies and combat climate change.

Islands have unique assets and resources supported by the surrounding marine ecosystems including coral reefs, estuaries, open ocean, mangrove, and kelp forests. These ecosystems support fisheries and aquaculture operations island communities rely on for economic opportunities and subsistence fishing. Some island fisheries in certain locations can be vulnerable to overconsumption and overharvesting due to lack of regulations and enforcement. Islands should have access to the best available data and science to manage their marine resources and should prioritize education and training to prepare islanders to manage fishing, recreation, and ecotourism businesses. Island communities need access to funding and resources to build marine economies that create jobs and help islands become more resilient.

Severe climate-induced issues including ocean acidification, coral bleaching, shellfish fragility and decline, eutrophication, and other water quality issues lead to more frequent fish kills and dead zones. In addition, climate change can cause significant damage to marine infrastructure like ports, docks, and transportation and trade hubs, making operating businesses inefficient and unsustainable. To create a sustainable marine economy, marine infrastructure must be built and retrofitted to withstand hurricanes, sea-level rise, and frequent flooding.

A fishing trawler cruise sails the Inner Passage of Juneau, Alaska. © Michael Turner / iStock



MARINE ECONOMY

The following federal policy recommendations will help U.S. islands achieve climate resilience

- 1. Ensure island communities have the resources and assistance necessary to support strong and sustainable marine economies.**
 - a. Focus infrastructure funding on building, upgrading, and maintaining resilient working waterfronts that can withstand hurricanes, sea-level rise, and frequent flooding.
 - b. Establish Sea Grant Extension Agents in all island communities, in partnership with local universities, to provide additional capacity and expand technical assistance opportunities to support island initiatives related to the marine economy, coastal resiliency, and habitat protection.
 - c. Create an Island Sea Grant Liaison position to address the specific needs of island communities.
 - d. Facilitate and encourage locally focused dialogue between NOAA's regional staff and island communities to coordinate and address island specific issues within NOAA and between NOAA and other federal agencies, especially the Army Corps of Engineers.
- 2. Support island communities to directly engage in the growth and operation of their own marine economies.**
 - a. Develop pilot projects focused on comprehensive fisheries management involving active engagement from both the Secretary of Commerce and island communities.
 - b. Incentivize island owned and operated aquaculture and mariculture efforts that support locally grown shellfish, kelp, and aquaculture development and diversify island's marine economy without endangering wild populations.
 - c. Ensure support and protection of subsistence fishing by Indigenous communities as part of island marine economies.
 - d. Support vocational training programs in island communities that prepare island residents for jobs in the marine economy to help develop island capacity.
 - e. Support collaborative ocean science and research in partnership with island communities to advance their marine economies.
 - f. Establish fishing zones accessible only to island-based fishing operations.
 - g. Facilitate the transfer of appropriately priced and easy to maintain technology.
- 3. Ensure island communities have representation on decision-making bodies and have meaningful opportunities for input into regulatory processes.**
 - a. Ensure island representation on regional collaborative networks, including Regional Ocean Partnerships.
 - b. Work directly with island community stakeholders to ensure regulations are appropriate and applicable to the local area and island.
 - c. Make specific considerations for the impacts of federal projects on entire island communities through the National Environmental Policy Act (NEPA) and other environmental regulatory processes.
 - d. Elevate island voices by adding islands into NOAA's Next Generation Strategic Plan.
 - e. Leverage the United States' participation in the International Partnership on MPAs, Biodiversity, and Climate Change to elevate the role that MPAs may have in building the resilience of island communities.

A Smith Island Waterman stands with bushels of wild caught Chesapeake Bay oysters aboard his boat. © Jay Fleming Photography





06

Waste Management

In order to become climate resilient, U.S. islands need long-term, sustainable solutions to address the management of solid waste on islands.

Solid waste management is a pressing issue in island communities. Lack of funding and political will have sidelined improvement efforts for both trash collection and recycling programs on islands, exacerbating the issue. With finite available land, landfill options are sparse, leaving few options for island communities. Hostile and unproductive debates about incineration and its impacts on air quality and human health often dominate conversations about solid waste management. Island communities and their government partners should explore innovative solutions like transitioning islands to circular economies that turn waste into resources. The principles of a circular economy are to design out waste and pollution, keep materials in use, and regenerate natural systems. Long-term, innovative, and sustainable waste management solutions need to be driven by island communities with support from government policies that are locally and culturally relevant and work in practice for island communities.

Island ecosystems are fragile and without sustainable waste management solutions that take into account each island's unique environmental and human needs, island ecosystems will suffer.



WASTE MANAGEMENT

The following federal policy recommendations will help U.S. islands achieve climate resilience

1. Bring locally and culturally relevant program support to islands and provide technical assistance, capacity support, and funding to establish effective waste management systems including trash, recycling, and large-scale composting programs.
2. Support and fund the development of island solid waste models that strive for a circular economy approach that prioritizes and incentivizes reuse practices and reduces new production of solid waste.
3. Provide innovative solutions for waste management that do not compromise air quality or lead to excess pollution, like incinerators.
4. Disincentivize false solutions such as bioplastics that are marketed as compostable but are only compostable under very particular circumstances such that these plastics end up in the landfill.
5. Pass domestic plastic use policies focused on reducing plastic pollution in line with the global plastic agreement signed at UNEA in Nairobi in 2022.
6. Collaborate with ecotourism operators and, especially, global hospitality brands, to lead on waste reduction.



07

Transportation

In order to become climate resilient, U.S. islands need sustainable transportation options that reduce emissions and ensure safe and reliable movement of goods and people on islands and between the islands and the mainland.

Transportation between islands and the mainland remains inconsistent and unpredictable in many island communities, and transportation on an island often relies on vehicles with high emissions, such as those running on diesel. Without dependable transportation to and from the mainland, islands are unable to access basic goods and services, limiting their ability to become climate resilient. Reliable and consistent ferry and plane services to and from islands would ensure that these basic services are not disrupted. Disruptions in transportation could impact the movement of goods, access to food, and operations of mail services, which could cause island communities to become even more vulnerable and isolated. When ferry and plane services are inconsistent, island communities cannot effectively conduct day to day business or plan for the future.

Many of the vehicles and vessels currently in operation in island communities are not fuel efficient and run on diesel. Reliance on antiquated vehicles and vessels holds islands back, tethering them to fossil fuels. In addition, islands struggle to remove old, outdated, and non-working vehicles and vessels because the cost of removal off the island is so high. Other challenges include the costs associated with updating infrastructure in isolated and remote islands, raising the total cost of projects that require transportation fees. Federal government policies must recognize the unique challenges islands face when transitioning their transportation systems to become more fuel and energy efficient and support them in establishing programs that take their remote geographies into account.



TRANSPORTATION

The following federal policy recommendations will help U.S. islands achieve climate resilience

1. Work directly with island communities to inventory the transportation needs of island communities both on-island and to and from the mainland.
2. Create collaborative working groups with participants from the Department of Transportation, Federal Aviation Administration, Department of Commerce, and other relevant federal agencies, with participation by island community representatives, to address the transportation needs of island communities.
3. Authorize and appropriate funding for consistent and reliable ferry and plane service to remote islands.
4. Prioritize U.S. Postal Service funding to service remote communities, like islands, to ensure these essential services remain in place and consistent, because many island ferry services are subsidized by the United States Postal Service.
5. Develop effective funding mechanisms to incentivize and support the transition to energy efficient and electric vehicles and ferries on island communities, including programs that help island communities remove antiquated vessels and vehicles off the island.

CSIN Steering Committee Biographies



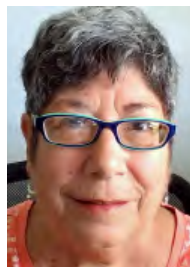
Austin Shelton, Co-Chair

University of Guam Center for Island Sustainability and Sea Grant | Guam

Dr. Austin Shelton is a native of Guam who grew up observing environmental degradation and was inspired to become a marine and environmental scientist. He now serves as an assistant

professor and the director of the University of Guam Center for Island Sustainability and Sea Grant. Austin is an Obama Leader and one of 50 Under 40: Emerging Leaders in the Government of Guam.

Austin works to revive island ecosystems and advance the 17 United Nations Sustainable Development Goals. He co-chairs the steering committee of Guam Green Growth, the island's most comprehensive public-private partnership ever created to achieve a sustainable future. He also collaborates regionally and internationally as a trustee of the Micronesia Conservation Trust; steering committee member of the Local2030 Islands Network; and representative to the Global Island Partnership (GLISPA), Secretariat of the Pacific Regional Environment Programme (SPREP), and National Sea Grant Association.



Lirio Marquez, Co-Chair

Vieques Conservation and Historical Trust | Puerto Rico

Lirio Marquez is the Executive Director of the Vieques Conservation and Historical Trust (VCHT), the oldest non-profit organization in Vieques, and co-manager of the Vieques

Bioluminescent Nature Reserve. As a member of the Climate Strong Islands Network Steering Committee, Lirio is committed to contributing local experiences to the search for site-appropriate, culturally respectful, and technically viable solutions to the issues presented by climate change to island communities.

During the past decade, Lirio represented the Vieques NGO sector in the White House Vieques Sustainability Task Force created by President Obama. Before working for the VCHT, she served as Legislative Advisor on Environment and Community Affairs in the Senate of Puerto Rico and the Puerto Rico House of Representatives.

Previous to her work in the PR Legislature, Lirio was a consultant in Puerto Rico and Latin America on environmental and voter's rights projects. She is a graduate of the University of Puerto Rico.



Kate Brown, Advisor

Global Island Partnership (GLISPA) | New Zealand

Kate Brown is the Executive Director of the Global Island Partnership, a platform that enables island leaders and their supporters to take action to build resilient and sustainable island communities. Kate is a passionate advocate for islands. She is a valued and trusted international partnership and collaboration leader, with a unique ability to connect dots for issues and people. Kate has extensive experience in all island regions globally, and brings an extensive network of island leaders, blue sky thinkers and people dedicated to supporting islands.

Kate has experience working inside government, non-profits and intergovernmentally as well as a keen sense of the most important elements of the international policy setting space relevant to islands as well as what is needed for implementation to happen. A strategic thinker who is able to present clear ideas and set up the right conditions for collaboration to thrive. Kate is originally from New Zealand and lived for eight years in Apia, Samoa.



Jason Donofrio, Advisor

The Ocean Foundation | Washington, D.C.

Jason Donofrio is the External Relations Officer at The Ocean Foundation where he helps to oversee external fundraising, partnership development and public communications. Jason is a Phoenix native with a decade of experience fundraising, organizing and coordinating public campaigns. After graduating college, he went on to work for public advocacy and environmental organizations in Arizona, Maryland, Vermont and Colorado, leading teams as large as 60 on crucial campaigns affecting environmental conservation, civic engagement, consumer protection and higher education affordability.

As a Director of various development departments, he has helped oversee multi-million dollar fundraising campaigns, develop and advocate public policy, and has experience cultivating donors to support organizational programs. Jason holds a BA in Cultural Anthropology from Arizona State University and is passionate about making a positive difference in our society.



Norah Carlos

CSIN Policy Advisor

Norah Carlos is a passionate advocate curious about the intersection of science, communication, and policy. Norah has worked in the environmental nonprofit sector focusing on environmental education and strategic

communications for eight years.

Through her nonprofit work, Norah has built and fostered coalitions and partnerships with community leaders, organizations, state agencies, and government offices. Her work experience includes professional and academic studies in watershed management, water quality issues, and fisheries policy. The Climate Strong Island Network is of particular interest to Norah, as she spent two years living and working in the waterman community of Tylerton on Smith Island, Maryland.

She received a B.S. in Environmental Studies and a Minor in Political Science from the University of Vermont and holds a M.S. in Environmental Science & Policy from Johns Hopkins University in Baltimore, Maryland. She lives in Richmond, Virginia with her dog, Minnow, where they enjoy spending time on the James River and the Chesapeake Bay.



Celeste Connors

Hawai'i Local2030 Hub | Hawai'i

Celeste Connors has 20 years of experience working at the intersection of economic, environment, energy, and international development policy. Before joining Hawai'i Local2030 Hub, she was CEO and co-founder of cdots development LLC, which works to build resilient infrastructure systems and services in vulnerable communities.

Celeste previously served as the Director for Environment and Climate Change at the National Security Council and National Economic Council in the White House where she helped shape the Administration's climate and energy policies, including the Sustainable Development Goals (SDGs). Prior to joining the White House, Celeste served as a diplomat in Saudi Arabia, Greece, and Germany. She also held positions at the U.S. Mission to the UN, served as the Climate and Energy Advisor to the Under Secretary for Democracy and Global Affairs at the U.S. Department of State, and worked for City of New York. Celeste is a Senior Adjunct Fellow at the East-West Center and grew up in Kailua, O'ahu.



Lauren Divine

Aleut Community of St. Paul Island | Alaska

Dr. Lauren Divine is the Director for the Ecosystem Conservation Office for the Aleut Community of St. Paul Island, a Federally recognized Tribe in the Pribilof Islands, Alaska. Lauren's

diverse education and experiences have brought her to a unique position with the Tribal Government where she has the opportunity to span the boundaries across western sciences; local and traditional knowledges; tribal, federal and state management; and stakeholder engagement through community-based and citizen science programs. She seeks to strengthen relationships across these boundaries in order to better serve the Pribilof Islands communities, wildlife, and overall marine and terrestrial ecosystems of the Bering Sea, and pan-Arctic.

Lauren collaborates regionally and internationally in working groups and public-private partnerships to advance the ecological goals of the Tribal Government, such as participation at several Arctic Council working groups, co-chairing the Aleutian Bering Sea Partnership, steering committee member of Businesses for Conservation and Climate Action, and advisory board member to the Coastal Observation and Seabird Survey Team.



Deanna James

St. Croix Foundation for Community Development | St. Croix

Deanna James is President of St. Croix Foundation for Community Development (SCF) in the U.S. Virgin Islands. Having held a number of executive level positions at the Foundation during

her 18-year tenure, today, Deanna oversees general operations, grantmaking, and program development. She is currently spearheading some of the Organization's most innovative and holistic initiatives in its 30-year history including a first of its kind Nonprofit Consortium which has adjoined 30 local social impact organizations around a collaborative vision of equitable, community-rooted social change. With four distinct Sectors including (Arts & Culture, Health & Human Services, Youth & Education, and the Environs) the Consortium is evolving in fulfillment of SCF's core mission of encouraging greater philanthropic activity into (and within) the USVI.

Deanna has concurrently been advocating for the field of philanthropy to demonstrate greater courage and aptitude for radical systems change from within, in the same way it seeks to invest in, and inspire external systems change.



Martyn Forde

Rocky Mountain Institute | Barbados

Martyn Forde is a consultant working to build climate-smart societies. Martyn has over a decade of experience working in the energy and climate resilience space in the Caribbean. His services include project management,

knowledge and information management, learning design and community of Practice management, and digital media production services.

Martyn joined the Rocky Mountain Institute (RMI) Islands Program in 2015 as a project manager and currently is responsible for learning design and capacity development planning for the RMI Energy Transition Academy (ETA). At the Caribbean Electric Utilities Services Corporation (CARILEC), Martyn is the Community Leader of the CARILEC Renewable Energy Community (CAREC). CAREC is a platform designed to facilitate sharing of electric utility knowledge and best practices in energy resilience and disaster recovery. The CAREC Community connects the network of Caribbean utilities and provides training and technical assistance to CARILEC members and non-members.



Marissa Merculieff

Aleut Community of St. Paul Island | Alaska

Marissa Merculieff serves as the Director of the Office of Justice and Governance Administration for the Aleut Community of St. Paul Island (ACSPI), a federally recognized tribe

located on St. Paul Island in the Bering Sea off the coast of Alaska. Marissa, a tribal member, was raised on St. Paul in a halibut fishing family and left to earn her J.D. from Arizona State University.

After law school, she worked with the Waikato-Tainui tribe in New Zealand on an environmental co-management structure over their ancestral river. Marissa then returned to provide culturally appropriate policy direction, advocacy, training, and technical assistance to the ACSPI Tribal Government. As the ACSPI works towards self-sufficiency and independence, she dedicates her efforts to assist with building and enhancing self-governance, economic strength and stability, and securing health and welfare resources for the Aleut people residing on the remote Bering Sea island.



Matt Mullin

CSIN Policy Advisor

Matt Mullin is the President & CEO of High Street Strategies LLC, a company he founded. Over the past 25 years, Matt has established himself as an expert in the nexus of business, policy, and politics. Throughout his career,

Matt has developed strong relationships with some of the leading state and federal elected officials, agency leaders, business leaders and entrepreneurs, and a wide variety of key stakeholders and decision-makers in Washington, DC, and beyond. As the firm's Founder, President & CEO, he advises clients on legislative and political strategy, messaging and grassroots mobilization.

Matt holds a M.S. in Environmental Sciences & Policy from Johns Hopkins University in Baltimore, Maryland; a graduate-level Executive Certificate from Georgetown University; and a B.A. in Environmental Studies and a Minor in Biology from Washington College in Chestertown, MD on Maryland's Eastern Shore as well as numerous professional memberships and appointments.



Elizabeth Okeke-Von Batten

CSIN Network Facilitator

Elizabeth Okeke-Von Batten is the Climate Strong Islands Network Facilitator. In this role, Liz works with CSIN's Advisors and Steering Committee to advance the mission of the organization through membership and program development, strategic communications and policy advisory delivery, and partnership management.

Liz has over 15 years experience working with civic leaders to deliver context-sensitive and sustainable design and development solutions through training and tailored programs that help support transformational projects and provide for long-term solutions. As Founder of Context Ventures, an advisory and project management firm based in Washington, DC, she specializes in helping municipalities, nonprofit organizations, and philanthropies initiate, develop, and implement sustainable strategies for projects and programs supporting their communities.

Liz earned a Master of Arts in Historic Preservation from Cornell University's College of Art, Architecture, and Planning and a Bachelor of Arts from Augustana College and is certified as a charrette facilitator by the National Charrette Institute.



Brenda Torres

Executive Director, San Juan Bay Estuary Program | Puerto Rico

Brenda Torres Barreto is a professional in the field of sustainability with vast experience in environmental management, corporate social responsibility and public policy development

through empowerment and multi-sector alliances. She has excelled in leadership positions in Puerto Rico and the United States.

Currently, Brenda serves as Executive Director of the San Juan Bay Estuary Program, an initiative focused on the restoration of water bodies in the metropolitan area of Puerto Rico, and part of the National Estuary Program partly funded by the USEPA. Through the Estuary Program, she coordinates multi-sector efforts, empowers citizens to be part of the restoration process and ensures the well-being of residents of the metropolitan area.



Jennifer Valiulis

St. Croix Environmental Association | St. Croix

Jennifer Valiulis is the Executive Director of the St. Croix Environmental Association (SEA), a small non-profit that serves the island of St. Croix in the U.S. Virgin Islands. Since starting

with SEA in 2015, Jennifer has focused on community engagement in environmental sustainability. She is working with a coalition of nonprofits to move the island away from an economy that has depended heavily on an oil refinery, towards a more environmentally sustainable and just economy.

Before joining SEA, Jennifer's primary career focus was wildlife ecology, working in the local government in the Division of Fish and Wildlife, and in the private sector as the co-owner of Geographic Consulting, a natural resources consulting business. Much of the focus of this work was endangered species recovery; the highlight of which was running the Sandy Point NWR Sea turtle monitoring program for five years. She has a BA in Biology from Earlham College and MS in Zoology from Colorado State University.

CLIMATE STRONG ISLANDS NETWORK ADVISORS

THE OCEAN FOUNDATION

The mission of The Ocean Foundation (TOF) is to support, strengthen, and promote those organizations dedicated to reversing the trend of destruction of ocean environments around the world. As the only community foundation for the ocean, the organization works to advance innovative, customized solutions to protect our coasts and ocean. TOF has consistently received a 4 Star Rating from Charity Navigator for commitment to accountability and transparency, as well as the Platinum Seal of Transparency from GuideStar, demonstrating a focus on measuring progress and results year over year. TOF also participates in 1% for the Planet, a network of like-minded individuals, businesses, donors, and nonprofit organizations working together toward protecting the future of our planet. A full overview of TOF's activities, performance, and financial transparency can be found in our 2019 Annual Report. oceanfdn.org



The Global Island Partnership (GLISPA) is led by the Presidents of Palau, Seychelles and the Republic of the Marshall Islands, Prime Minister of Grenada and Premier of the British Virgin Islands. GLISPA's mission is to promote action to build resilient and sustainable island communities by inspiring leadership, catalyzing commitments and facilitating collaboration for all islands. Since its launch in 2006, the Partnership has engaged high-level leaders to catalyze \$150 million USD for island action and assisted 35+ countries to launch or strengthen major sustainable island commitments. GLISPA now has more than 40 members and 55 friends as part of their island resilience movement. glispa.org

FOR MORE INFORMATION

For more information about the Climate Strong Islands Network, contact CSIN Network Facilitator Elizabeth Okeke-Von Batten at elizabeth@climatestrongislands.org.

THE CLIMATE STRONG ISLANDS NETWORK



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