

**Testimony of  
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**Before the  
Subcommittee on Fisheries, Wildlife, and Oceans**

**Committee on Natural Resources  
U.S. House of Representatives**

**Hearing on  
H.R. 5451, CZMA Reauthorization  
H.R. 5452, Coastal State Renewable Energy Promotion Act,  
H.R. 5453, Coastal State Climate Change Planning Act,  
H.R. 3223, Keep Our Waterfronts Working Act**

**February 28, 2008**

Chairwoman Bordallo, Ranking Member Brown, and distinguished members of the Subcommittee; thank you for the opportunity to appear before you today to discuss island coastal management and reauthorization of the Coastal Zone Management Act.

My name is Evangeline Lujan. I am the Administrator of the Guam Coastal Management Program in the Guam Bureau of Statistics and Planning.

I am here today representing the All Islands Committee on Coastal Zone Management representing Hawai'i, Guam, American Samoa, Commonwealth of the Northern Mariana Islands, US Virgin Islands, and the Commonwealth of Puerto Rico.

My testimony today will provide comments on behalf of the All Islands Committee as well as my own perspectives gained from more than 14 years of working in coastal and ocean management for Guam.

The island's coastal zone provide economic and environmental services to millions of people as valuable areas of natural beauty, sources of food, jobs and revenues, recreation and tourism, cultural activities and shoreline protection. The inability of coastal management to address environmental issues on an ecosystem-wide basis affects islands in a unique way: for example, no point in Guam is more than 11 miles from the shore. The entire island is considered a coastal zone. As is true for all other island jurisdictions, the coastline is affected

by activities that occur inland. Thus, land management decisions, resource exploitation, water quality and coastal management are interconnected. Management of impacts to habitat is critical to the protection of natural resources. To islanders, the ocean is our heritage and our future.

Firstly, I would like to provide a few outlined items that are important to the island jurisdictions as you proceed with support of the reauthorization of the CZMA.

### **OUTLINE OF TOPICS:**

**It is important to recognize in the Reauthorization that the All Islands CZM programs provide a unique perspective because Island coasts and oceans extend from the top of the mountain to the sea (three miles seaward) which should address;**

- Indigenous and immigrant populations;
- Cultural & Traditional importance in management practices;
- Island environments of non-contiguous land masses with unique characteristics, limited natural resources (terrestrial and marine), a finite land base, surrounded by ocean waters; and,
- Uniquely affected by sea level rise and climate change, needing effective and immediate action to ensure the survival of ecosystems and cultures.

**With these distinctive characteristics in mind, in reauthorizing the Coastal Zone Management Act, I urge Congress to:**

- Strengthen the Coastal Zone Management Act to maintain a balance between coastal conservation and economic development.
- Provide adequate funding for states' and territories' coastal programs so that they receive the investment aligned with their economic contribution. Islands are especially susceptible to economic pressure to develop in inappropriate areas. As an island jurisdiction coastal management is considerably under-funded given the economic impact of coastal areas. This is true not only for Guam but to all our island CZM programs.
- Provide for adequate base funding for the core programs, on a non-competitive basis. Competitive funding available for additional programs.
- Increase funding for emerging issues such as climate change. Such issues are not presently factored into original CZMA.
- Provide funding for the non-point source program. For islands especially, this problem is critical and has direct impact to their valuable coral reef ecosystems.
- Craft National Priorities to support healthy coastal communities and economies, protect and restore coastal natural resources, enable states to adapt to climate change and, ensure integration of coastal and ocean programs. Recognizing that "One size fits all" policies are not appropriate for different physical settings, most especially for islands.
- Monitor effectiveness of coastal programs through measures and evaluation.

- Engage and encourage local communities and indigenous people in coastal stewardship. Noting that there is a mix of diverse cultures and traditional practices. Finding ways to incorporate both scientific knowledge and traditional knowledge in resource management is important.
- Strengthen coordination and integration of management programs for the nation's coasts taking the unique needs of territories and islands into account. Islands, as well as other coastal communities, struggle with competing interests (multiple users, achieving balance, and setting priorities). There is also a need for coordination among federal agencies and among levels of government.
- Strengthen federal consistency to apply to the entire island. This will ensure that natural resources are managed through an ecosystem approach. For Guam, strengthening of federal consistency will be critical during the military build up.
- Strengthen NOAA's ability to coordinate and collaborate with federal agencies in support of local jurisdiction's coastal policies.

Secondly, I would like to provide a few outlined points that are important to island jurisdictions to authorize CZMA with emphasis on coastal climate change;

Islands Are **Uniquely Affected by Climate Change.**

Islands have an urgent need for adequate coastal planning for sea level rise and other expected impacts from climate change. I commend Representative Capps for introducing H.R. 5453, a bill to amend the Coastal Zone Management Act of 1972 (CZMA) to authorize assistance to coastal states and territories to develop coastal climate change adaptation plans. The future of Guam's as well as other island jurisdictions' economic stability are reliant upon protection and management of coastal resources and adaptation to climate change and rising sea level. This legislation provides a mechanism for coastal management to address one of our most pressing coastal issues.

The Intergovernmental Panel on Climate Change (IPCC) report confirmed what managers of island coastal programs know: small islands have characteristics that make them especially vulnerable to the effects of climate change, sea-level rise, and extreme storm events. Characteristics such as limited size and proneness to natural hazards increase the vulnerability of islands to climate change. In most cases they have low adaptive capacity, and adaptation costs are high relative to gross domestic product.

With "very high confidence," the IPCC found that especially for islands, sea-level rise is expected to exacerbate inundation, storm surge, erosion and other coastal hazards, threatening vital infrastructure, settlements and facilities that support the livelihood of island communities. Specifically, sea-level rise could lead to a reduction in island size, particularly in the Pacific. Island infrastructure is

predominately located on the coast and in the Caribbean and Pacific islands, more than 50% of the populations live within 1.5 km of the shore. Almost without exception, international airports, roads and capital cities in the small islands of the Indian and Pacific Oceans and the Caribbean are sited along the coast, or on tiny coral islands.

Climate change will also compromise water resources, heavily impacting coral reefs, fisheries and other marine-based resources (high confidence), and adversely affecting human health, subsistence and commercial agriculture, tourism, on small islands.

H.R. 5354 would provide essential funding and management capacity to island coastal programs to address these front-line needs. These specifically are encouraged for the following priorities:

- \*Need of data/information for effective adaptation to Climate Change:
  - \* Higher resolution topography useful for land use permits;
  - \* Current, seasonal, coast-wide imagery to assess shoreline change and rates of change over time; and,
  - \* Images for inland areas in order to connect land uses with shoreline change, needed at a resolution of land use parcel or better.
- \* Need for training, outreach and education:
  - \* Software and training for spatial analysis using GIS;
  - \* Island-specific funding for experts to evaluate a problem and provide expert advice/recommendations on how to solve it;
  - \* A Toolkit of Best Management Practices for land use tailored for the islands, include links to available resources; and,
  - \* Develop local strategies on coastal management issues, adapt the tools to the island, county, and local management level.
- \*Support the need for island-specific information and research
  - \* Translate federal smart growth programs and tools to be applicable in the islands.
  - \* Studies on the water carrying capacity of islands, including in-water use impacts.
  - \* Methods to document real-life land use instead of general policies and information, needed to capture the impact of variances issued by local zoning.
  - \* Recommendations for innovative, protection alternatives for shoreline change caused by sea walls on Guam.
  - \* Information on the social science impacts (cultural, economic) of resource degradation.
  - \* Island-specific case studies and examples for improving the governance structure for addressing land use and land use designations (zoning).

**Conclusion**

In reauthorizing the Coastal Zone Management Act and considering the role of this bill in coastal management, I urge you to be mindful of the unique perspectives and needs of island states and territories. Recognizing that coastal jurisdictions are unique and have different values and needs, the CZMA ensures that National interest are expressed and carried out through local initiatives. The Guam Coastal Management Program and island jurisdictions looks forward to working with the House Natural Resources Subcommittee on Fisheries, Oceans and Wildlife to advance these bill.