The National Oceanic and Atmospheric Administration (NOAA) Coral Reef Conservation Program (CRCP) sponsored this report that provides a description of existing marine outreach and education programs in the U.S. Virgin Islands (USVI) as well as a series of action recommendations to improve communication efforts for future programs. The overall goal for this project was to provide insight on the current level of marine outreach and education in the USVI, providing resource managers, conservationists, and educators with a perspective on what is currently being done, what needs remain, and how those needs may be met. Ultimately, this project is meant to provide a foundation for future long-term community outreach, education, and engagement activities and is not specific to any one entity or individual interested in pursuing such activities in the USVI.

The primary inputs for this project have been related reports and studies, as well as the observations, experiences, and opinions offered by those people most closely associated with marine outreach and education in the USVI. This plan is a synthesis of these reports and studies and is part of the larger Marine Outreach and Education U.S. Virgin Islands Style (MOES-VI) effort.

The MOES-VI effort is led by the NOAA CRCP. It has been established that commercial fishing, recreational marine use, land-based pollution, and climate change are the main stressors of coral reefs throughout the USVI and that increased community involvement in resource management is a key mechanism to reduce human-based stressors. While a substantial number of programs exist within the USVI focused on marine resource management and education, there is a perception that gaps exist and that governmental agencies and NGOs can make more progress in building relationships between resource managers and community members. It is hoped that an improved level of marine outreach and education will result in greater public support for necessary management actions and more active community-led conservation efforts.

To address these priorities, and with funding from NOAA’s CRCP, a series of projects was developed and these projects are being implemented under the brand of MOES-VI.

Current MOES-VI collaborators include the NOAA CRCP; NOAA Fisheries Southeast Regional Office; Caribbean Fishery Management Council; USVI Department of Planning and Natural Resources Divisions of Fish and Wildlife, Coastal Zone Management (including the St. Croix East End Marine Park and the St. Thomas East End Reserve), VI Council on the Arts, and Environmental Enforcement; USVI Department of Sports, Parks and Recreation; The Nature Conservancy; SeaGrant College Program, Puerto Rico; Earthbound Studios; Friends of the St. Croix East End Marine Park; Caribbean Restoration and Oceanographic Restoration and Education Foundation; VI Network of Environmental Educators; St. Croix Commercial Fishermen’s Association; and St. Thomas Fishermen’s Association.

Project team members conducted individual interviews with key outreach and education leaders active in the USVI, asking them for their opinions and input on how their programs operate, who their programs involve, what major challenges they face, and how they could be more successful, among other questions. In addition to the interviews, 2 focus group meetings were held in the USVI, one each on St. Croix and St. Thomas, during April, 2014. Key stakeholders from local government agencies, educational institutions, and non-governmental organizations (NGOs), and others directly involved in marine outreach and education, were invited to participate in the focus groups. These key stakeholders were recommended to the project team for interviews and/or focus group participation via the project steering committee, which included representatives from local and regional NOAA offices familiar with USVI.
Gathering the Data

A number of different methodologies were employed during the interviews and focus groups to elicit information about existing marine outreach and education programs. These methods included multiple short surveys and a systematic review of transcripts from interviews and focus group meetings. The data from one survey, asking about which entities worked together, were turned into "sociograms," which are web-like representations of social networks, showing which government departments and organizations work together the most.

The word cloud on the right shows the words most commonly used when discussing marine outreach and education challenges and opportunities in the USVI based on interview and focus group transcripts.

Challenges and Existing Gaps

A full description of challenges and existing gaps in marine outreach and education is presented in the report. Key challenges and gaps include:

- **Grant funding:** Typically, programs are funded through specific grants. A major challenge according to respondents was associated with long-term program planning since grant funding would run out or had no guarantee of renewal, even if program performance was high. Interviewees and focus group attendees both spoke of effective programs that lost their grant funding and eventually disappeared, with any gains achieved by the program essentially lost.

- **Staffing:** Interviewees and focus group attendees noted that many agencies and organizations were understaffed, with existing staff too overtaxed by technical and administrative duties to establish effective marine outreach and education programs in their "free time." People stated that this was particularly true for workers in the USVI, which is a large geographic region with complex natural resource issues. Additionally, participants noted that frequent leadership changes due to election cycles were another challenge to program consistency.

- **Interagency Co-ordination:** Communication was cited as a challenge, as were clarifying roles and responsibilities for each agency and securing the requisite amount of funding. Respondents stated that different agencies may have poorly coordinated parallel efforts, resulting in duplicative efforts or piecemeal management solutions that lack integration.

- **Digital Divide:** People stated regularly that websites, social media, or any sort of online presence was important and can only serve to help reach more people,
Challenges and Existing Gaps

but they cannot be relied upon on their own to spread a communication message. Word-of-mouth was the most frequently cited method of communication. People regularly stated that the USVI was more unique in this respect since internet access and smartphone use is not as ubiquitous as on the mainland.

- **Non-local Flavor**: Some of the least successful programs, according to interviewees and focus group participants, are those with little-to-no local involvement. These types of programs are typically focused on issues considered unimportant to locals and education materials are designed in a manner that does not reflect local aesthetic values. Despite being professionally produced and designed, these types of materials accentuate the “otherness” of the message and serve to undercut its legitimacy among members of the general population.

- **Stakeholders and Trust**: Interviewees and focus group participants suggested that even outreach and education programs with little local involvement may find success in the USVI if they are delivered by an agency and/or individual trusted by the target audience or user group. In many ways, this trust can only be built over time and reciprocity is important. This is particularly true for fishermen and other user groups with highly developed knowledge of the marine environment who are unlikely to trust individuals they perceive as less knowledgeable.

Action Recommendations

The following action recommendations are based directly on statements gathered through the interviewee and/or focus group efforts and are generally categorized based on the themes uncovered through that process. In most cases, action recommendations were developed to respond to specific gaps or improve upon already-successful efforts being conducted in the USVI. They are presented and described in full in the final report.

- **Establish a key node and capitalize on established centers of leadership**: A greater level of coordination is necessary to create more engaging and long-lasting outreach and education programs. It is preliminarily suggested here that the MOES-VI program could be used as a platform for integrating agency priorities for outreach and education efforts, as it is within NOAA CRCP, has strong connections to divisions within NOAA and other key agencies, and is already involved in successful outreach and education efforts in the USVI.

- **Work with law enforcement**: Law enforcement engages with all subsections of the population, including tourists, fishermen, students, property owners, businesses, and other members of the general public. It is recommended that the USCG and Department of Planning and Natural Resources-Division of Environmental Enforcement (DPNR-DEE) receive an environmental orientation and be provided materials by resource management partners and collaborate on the development of products on an ongoing basis for distribution to the general public.

- **Let the islands inform each other**: Despite their relative proximity, practices on St. Thomas, St. Croix, and St. John vary widely. Specifically, it is recommended that the St. Croix Environmental Association coordinate with the Environmental Association of St. Thomas, and other appropriate NGOs, to share best practices and help build their capacity.

- **Concentrate on recycling efforts**: While the Virgin Islands Waste Management Authority (VIWMA) is currently involved in promoting construction and remodeling recycling and reuse, it is recommended that recycling specialists from the VIWMA meet with other waste management entities in the Caribbean to determine the best way to facilitate aluminum, glass, and plastic recycling efforts in St. Croix; the Caribbean Challenge Initiative would be an ideal forum to establish lines of communication.

- **Broaden audiences**: This includes: (1) Make education materials available in places that members of the general public frequent; (2) Work with businesses to incorporate environmental awareness; (3) Focus on the economic benefits of behavior change.
Action Recommendations

• **Form a USVI-wide message:** It is recommended that key entities in USVI marine outreach and education form a consistent message and attempt to prioritize outreach foci. It is also recommended that large campaigns share similar branding elements so that efforts sponsored by various agencies are experienced by the public as a cohesive whole, even if the individual events are funded by disparate grants and various agencies.

• **Make messages local and culturally relevant:** It is recommended that environmental educators work with local community members to identify environmental issues of particular relevance and prioritize programs responding to these issues. It is also recommended that local artists, photographers, musicians, writers, and designers be employed to develop materials and other content used in environmental outreach and education efforts such as brochures, posters, signs, and flyers.

• **Create programs that are discrete, experiential, and social, and result in immediate stewardship:** It is recommended that educators design programs to respond to these four key features to maximize stakeholder engagement.

• **Focus children's programs on needs:** It is recommended that programs focused on introducing children to swimming, teaching water and swimming safety, and snorkeling skills continue and become more permanently developed.

• **Engage the tourism industry:** It is recommended that entities involved in outreach and education work directly with cruise ship companies and provide outreach materials to program directors, concierges, and tour directors about key issues such as responsible recreational fishing, respecting wildlife, turtle nesting behavior, and coral maintenance.

• **Engage territorial government effectively:** It is recommended that communications with politicians should focus on how issues affect (1) community public health; (2) cultural traditions; and (3) the economy of the USVI.

• **Invest in outreach:** It is recommended that the agency approving scientific research permits require a level of scientific outreach as part of the research plan, provide suggestions for communicating messages, and enforce this aspect as part of its overall QA/QC process of reviewing issued permits.

• **Incorporate stewardship into public events:** It is recommended that program developers keep this tension in mind when planning large-scale public events, taking the opportunity to think of strategies to keep the environmental message clearly at the heart of the event.

• **Use technology, but do not rely on technology:** For the foreseeable future, program developers should employ a range of media to draw attention to their efforts. This can include websites and social media, as well as radio commercials, print advertisements, press releases, and stories on the local television news and/or PBS station.