

APPENDIX F

Building a Legal Framework for Marine Zoning in the Federation of St. Kitts and Nevis, Notes for Policymakers

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Executive Summary

Governmental regulation of land has been a feature in almost all of the world's legal systems since the beginning of history.¹ In the early twentieth century, governments in the United States and United Kingdom responded to increased urbanization and its associated conflicts and problems (congestion, disease, and poor sanitation, among others) by implementing comprehensive planning and zoning laws. Since that time, zoning has helped to guide development, and to preempt and manage conflicting uses of land.

Ocean zoning, in contrast, is in its infancy. Increasing pressures on marine resources and their inefficient management have made clear the need for new, ecosystem-based approaches to marine planning and regulation. Marine zoning is an effective tool for policymakers to plan for various ocean uses, organize and prioritize conflicts, and streamline management toward the goal of sustainability.

The case for marine zoning is particularly strong in the Small Island Developing States of the Eastern Caribbean where economies and public health depend on marine and coastal ecosystems and the biodiversity which they support. Lamentably, the Caribbean's large endowment of biodiversity-rich marine ecosystems is being lost at an alarming rate. A recent analysis published in *Science* noted that the Eastern Caribbean was among the five regions worldwide showing the highest cumulative human impact on marine ecosystems.²

Through the Marine and Coastal Biodiversity Threat Abatement in the Eastern Caribbean (BioTA) project, The Nature Conservancy (TNC) and partners will work to complement ongoing efforts in the region by developing scientific and regulatory frameworks that provide decision making tools, supporting improved environmental coastal and marine policies and legislation, and increasing awareness of decision makers, private industry leaders, and the public on key threats to marine and coastal biodiversity. Among the BioTA project's principal outputs is a marine and coastal zoning plan for the Federation of St. Kitts and Nevis. This paper aims to recommend a governance framework well-suited to the legal, institutional, and political context of St. Kitts and Nevis to implement this marine zoning plan and to develop marine zoning infrastructure that will continue to serve the government of St. Kitts and Nevis long after the running of the BioTA project cycle.

In furtherance of this goal, Part I of this paper surveys basic principles of marine planning and zoning, identifying various options for structuring a planning and zoning framework and exploring how its outputs may acquire the force of law. Part II identifies and describes laws and policies now in force in St. Kitts and Nevis that relate to marine resources management and maritime affairs. Part III analyzes those laws and policies that might support a marine planning and zoning framework and identifies several short and long-term implementation solutions.

¹ JULIAN CONRAD JUERGENSMEYER & THOMAS E. ROBERTS, *LAND USE PLANNING AND DEVELOPMENT REGULATION LAW 1* (2nd ed. 2007).

² Benjamin S. Halpern et al., *A Global Map of Human Impact on Marine Ecosystems*, *SCIENCE*, Feb. 15, 2008, at 948.

Conclusions

Marine zoning and its goals are consonant with the stated policies of the government of St. Kitts and Nevis. A planning and zoning framework would promote “the conservation of biological diversity, the mitigation of adverse effects of climate change and the maintenance of essential ecological processes and life support systems.”³ It would also help to clarify and rationalize the roles and responsibilities of national environmental agencies to maximize efficiency and accountability in management of the environment and natural resources,⁴ and help to protect the cultural and natural heritage of St. Kitts and Nevis.

While existing law permits the government to meaningfully regulate activities in the coastal zone and to declare marine protected areas, it is inadequate to support the development and implementation of a comprehensive, integrated framework for ecosystem-based marine and coastal planning and zoning. Until a comprehensive marine planning and zoning framework is in place, policymakers in St. Kitts and Nevis can utilize existing legislative tools to protect the most sensitive coastal and marine areas. Specifically, the government could immediately adopt a coastal zone management plan under either the National Conservation and Environmental Protection Act (NCEPA) or the Development Control and Planning Act (DCPA) reflecting, to the extent possible, the zoning plan contemplated by the BioTA project's Component 1. The government could also designate marine reserves and protected areas under either the Fisheries Act or the NCEPA.

In the long term, however, implementation of a comprehensive marine planning and zoning framework will require the enactment of new legislation or the amendment of existing legislation. The new or amended legislation would establish the required planning and zoning infrastructure and include mechanisms for monitoring, evaluation, inter-agency coordination, inter-agency conflict resolution, public and inter-agency participation, and enforcement. A new framework would enhance the government of St. Kitts and Nevis' responsiveness to the complex challenges of preserving and conserving the marine environment by ensuring that the sum of all marine resource management decisions is oriented towards the goal of integrated, ecosystem-based management.

Part I. Marine Zoning

i. Introduction: The Case for Marine Zoning

In many parts of the world, a “hodgepodge of individual laws,” implemented by “sector-based” agencies, has resulted in piecemeal management of ocean resources.⁵ This approach to governance

³ St. Kitts and Nevis National Environmental Management Strategy and Action Plan 2005 – 2009, Principle 2, Strategy 2 (September 30, 2004) at 8.

⁴ *Id.*, Strategies 6, 7 at 9.

⁵ Pew Oceans Comm'n, *America's Living Oceans: Charting a Course For Sea Change* (2003), available at http://www.pewtrusts.org/pdf/env_pew_oceans_final_report.pdf; see also Josh Eagle, *Regional Ocean Governance: The Perils of Multiple-Use Management and the Promise of Agency Diversity*, 16 DUKE ENVTL. L. & POL'Y

treats marine resources as collections of disconnected components, problems, and opportunities, overlooking the interconnectivity of the various sectors. This fragmentation is associated with inefficiencies and negative externalities.⁶

To address these effects, comprehensive marine planning and zoning seeks to enhance interagency, intergovernmental, and international communication and collaboration; maximize accountability in management of the marine environment and natural resources; and reduce conflicting uses of marine space.⁷

Zoning is simple, straightforward, systematic and strategic. It results in regional maps, in which every watery space is categorized for a particular use or array of uses—from commercial activities to recreational ones, including strictly protected areas that are virtually off-limits.⁸

While conflicts would not disappear if zoning were implemented, it would help to minimize and resolve them.⁹

In essence, ecosystem-based marine zoning attempts to blend the conventional terrestrial notion of separating incompatible uses with more contemporary [normative] concepts of integrated ecological management to form a new, more robust and enduring marine governance structure.¹⁰

Properly implemented, ecosystem-based marine zoning would help maintain a healthy, productive, and resilient ecosystem that can provide the services that humans need.¹¹ A marine zoning framework might also promote compliance with international obligations.

F. 143, 151 (2006); Kelly McGrath, *The Feasibility of Using Zoning to Reduce Conflicts in the Exclusive Economic Zone*, 11 BUFF. ENVTL. L.J. 183, 199 (2004).

⁶ For example: Reduced public participation in agency decision-making processes (Eagle, *supra* note 4, at 151); mismanagement of regulated resources due to lack of clarity in agency responsibilities (*id.* at 151); added negotiation costs and reduced possibility of efficient resolution of issues, especially when cross-jurisdictional cooperation required, (*id.* at 152; *see also* Andrew A. Rosenberg, *Regional Governance and Ecosystem Based Management of Ocean and Coastal Resources: Can We Get There from Here?*, 16 DUKE ENV. L. POL. FORUM 179, 180 (2006)); disregard for cumulative impacts; increased possibility for agency capture (James N. Sanchirico, Josh Eagle, Steve Palumbi & Barton H. Thompson, Jr., [Comprehensive Planning, Dominant-use Zones, and User Rights: A New Era in Ocean Governance](#), BULLETIN OF MARINE SCIENCE, April 2010, at 8); and the inability to respond to complex challenges (Deborah A. Sivas & Margaret R. Caldwell, *A New Vision for California Ocean Governance: Comprehensive Ecosystem-Based Marine Zoning*, 27 STAN. ENVTL. L. J. 209, 244 (2008)).

⁷ Sanchirico, *supra* note 6, at 5.

⁸ Agardy, Tundi, *Is Ocean Zoning the Solution to Dying Marine Ecosystems?* SCIENTIFIC AMERICAN, June 30, 2009, at 1.

⁹ Sanchirico, *supra* note 6 at 10.

¹⁰ *See* Sivas, *supra* note 6, at 245; *see also* John Eagle, *The Practical Effects of Delegation: Agencies and the Zoning of Public Land and Seas*, 35 PEPP. L. REV. 835, 845 (2008).

¹¹ Sivas, *supra* note 6, at 245.

ii. Implementing a Zoning System, Generally

A zoning and planning framework requires a mandate to give its outputs the force of law. The specific tools available to policymakers to accomplish this will vary across jurisdictions, but options may include: networking existing legislation through an executive order or policy statement (or the Order-in-Council, its parliamentary equivalent); passing new legislation; amending existing legislation; and “hitchhiking” or “piggybacking” on substantively related bills before the legislature. Subsection (iii) below examines these options more closely.

Whatever the method, the mandate determines the specific character of the remaining steps in the implementation process. A major concern will be the zoning system’s governance structure. This structure should assign administrative responsibility for marine planning and zoning, and provide for public and stakeholder input, enforcement and monitoring policies, planning practice, coordination mechanisms, and a conflict resolution process. Subsection (iv) below surveys two governance models.

Finally, the Pew Oceans Commission has suggested that marine zoning may proceed via a “building block” approach, under which policymakers would identify core sensitive areas in need of protection, designate them as marine protected areas (MPAs), and thus ensure that that they will be protected and buffered from areas with more intense uses.¹² More comprehensive regional planning and zoning could occur thereafter.¹³

iii. Legal Instruments, Conferring Legal Force

How marine zoning frameworks and their outputs acquire the force of law will depend on the implementing state’s legal system. Each method explored below has associated benefits and drawbacks.

a. “Networking” Existing Legislation

“Networking” legislation refers to the repurposing of existing laws towards a common goal identified in an executive mandate, usually a policy statement or executive order (or Order-In-Council). The mandate could require agencies (or ministries) with regulatory responsibility for ocean resources and activities to coordinate their actions to realize management priorities identified in the instrument. A zoning plan would be the principle output of the coordinated activity. Under a “networking” arrangement, agencies or ministries would retain their traditional authorities but exercise them in accordance with the agreed-upon plan. The legal instrument would need to provide for: 1) an inter-agency coordination mechanism, 2) a conflict resolution process, 3) an information sharing framework, and 4) a lead agency. Because it does not involve passage of new legislation, “networking” is a “soft” approach to implementing a framework.

¹² McGrath *supra* note 5, at 196, 205.

¹³ *Id.* at 196.

Under a “networked” system each participating agency or ministry would pass regulations in order to realize the prescriptions of the zoning plans. Regulations would bind individual users. Because this process would implicate the regulatory process, when evaluating whether to proceed via new legislation or by “networking” existing laws, policymakers should bear in mind the time commitment that it might entail.

The Australia Oceans Policy (1998) and the United States Interim Framework for Effective Coastal and Marine Spatial Planning (2010) favor a networking approach to ocean planning and management. At the core of the Oceans Policy is the development of regional marine plans that bind all agencies of the Commonwealth.¹⁴ Agencies carry out their respective regulatory duties in accordance with the plan. The United States’ Ocean Policy Task Force recommends a similar model and explicitly identifies the source of binding authority as agreements between federal, state, and tribal “partners”.

Partner[s] participating in Coastal and Marine Spatial Planning (CMSP) would need to commit in good faith to: (1) a cooperative, open, and transparent CMSP process leading to the development and implementation of CMS Plans, acknowledging that each partner may have different authorities and non-discretionary mission objectives that must be fully addressed; (2) ensuring that consideration of the National Policy, national CMSP goals, objectives, and principles, and regional CMSP objectives are incorporated into the decision-making process of all the partners consistent with existing statutory, regulatory, and other authorities, and the critical needs of emergency response, and homeland and national security activities; and (3) dispute resolution processes that enable concerns and issues not resolved through the cooperative planning process to be resolved quickly, rationally, and fairly.¹⁵

The most notable benefit of the “networking” approach is the relative ease with which the government could issue a mandate. On the other hand, because under a “networking” approach the legal framework would be based on the initiative of the administration supplying the mandate, it may be subject to changing political circumstances that might result in its revocation. The durability of a networked framework may depend on executive term-length, agency strength, and agency motivation.

The greatest weakness of a zoning system driven by “networked” legislation is that it would be constrained by the authorities, procedures, and limitations of the underlying legislation it unites.

b. Special Legislation

The principal advantage of using new, specialized legislation to drive a marine planning and zoning framework is that new legislation provides a clear and unconditional mandate unfettered by other institutional arrangements, statutory mandates, etc. It is also more durable.

¹⁴ Australia’s Oceans Policy (1998) at 2.

¹⁵ See THE WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY, EXECUTIVE OFFICE OF THE PRESIDENT, INTERIM FRAMEWORK FOR EFFECTIVE COASTAL AND MARINE SPATIAL PLANNING INTERAGENCY OCEAN POLICY TASK FORCE 19-20 (2009).

There are notable disadvantages as well. First, navigating the political process can be time-consuming. Similarly, drumming up political support may be difficult because of the likelihood of deferred political benefit and the likelihood that any new ocean governance framework could strip agencies of existing statutory authorities (if, for example, new legislation vested full responsibility for ocean planning and zoning in a new agency, as under an Integrated Agency governance model, discussed below).

c. Amendment

Implementing a marine zoning system through amendment of existing legislation shares some of the advantages associated with new legislation (clearer authority, leadership, durability) and “networking” (relatively easier, politically, to accomplish).

A mandate coming via amendment, however, still implicates the political process and may be subject to some of its associated drawbacks. The resulting system may also require extensive coordination across agencies, which can be costly.

iv. Governance Models

This section explores two governance models that have been used in other countries to implement marine planning and zoning frameworks.

One scholar recommends that governance systems be evaluated according to four criteria of effectiveness and feasibility.¹⁶ The criteria are: 1) integration; 2) comprehensiveness; 3) public accountability; and 4) political viability.¹⁷ Integration refers to the extent that a system coordinates the activities of responsible agencies and mediates and resolves conflicts between them.¹⁸

Comprehensiveness refers to the extent to which a system covers the entirety of a jurisdiction’s waters.¹⁹ Public accountability refers to the capacity of a system to ensure transparent decision-making, administrative appeals, and a role for the judiciary.²⁰ Finally, a system is politically viable if it stands a good chance of passing through the legislature and does not alienate or offend the interests of government and civil society stakeholders.²¹

Under the current “hodgepodge of individual laws,” the public may be dissuaded from participating in ocean governance due to confusion concerning which agency is ultimately responsible for regulating the uses they are interested in. Councils or lead agencies reduce the number of “decision-making loci” and

¹⁶ Sivas, *supra* note 6, at 250.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.* at 252; Eagle, *supra* note 5, at 152 (explaining that when administrative jurisdictions do not match ecosystem boundaries there arises a “fractured authority” problem (with no agency or sovereign having the power to comprehensively manage resources across borders) characterized by higher transaction and negotiation costs and sub-optimal management).

²⁰ Sivas, *supra* note 6, at 252.

²¹ *Id.* at 253.

serve as readily identifiable points of contact for interested parties.²² This sort of streamlined, more transparent governance reduces costs and enhances public participation in the regulatory process.²³

a. Integrated Agency Model

This model vests planning and implementation responsibility for the entire framework in one agency.

The Great Barrier Reef Marine Park in Australia employs an integrated agency model. The Great Barrier Reef Marine Park Act, its authorizing legislation, created the Great Barrier Reef Marine Park Authority and charged it with developing and implementing zoning and management plans, permitting uses, monitoring, and interpreting data within the Great Barrier Reef Marine Park.²⁴ Zoning plans developed by the Authority with public input²⁵ are legislative instruments.²⁶

By maximizing “integration” this model minimizes transaction costs.²⁷ It is the most effective at resolving use conflicts and thereby arguably the best at promoting ecosystem health.²⁸ Some argue it also decreases the possibility of agency capture from concentrated interest groups.²⁹

On the other hand, because it might strip authority from agencies with historic jurisdiction over marine and coastal resource management, the integrated agency model rates poorly regarding political viability.^{30,31}

b. Master Zoning Plan Implemented by Multiple Agencies, Multi-Agency Management Model

As its name suggests, the essence of this model is agency consultation and collaboration toward the goal of coordinated management of the covered marine environment.³² One scholar identifies four preconditions to its implementation. These provide a good starting point, but the list is not exhaustive:

²² Eagle, *supra* note 5, at 157.

²³ *Id.*

²⁴ See http://www.gbrmpa.gov.au/corp_site (follow “About Us” hyperlink).

²⁵ Great Barrier Reef Marine Park Act, 1975, art. 32C (Austl.).

²⁶ *Id.* at art. 35D (Austl.).

²⁷ Sivas, *supra* note 6, at 255.

²⁸ Sanchirico, *supra* note 6, at 9.

²⁹ *Id.* But see Sivas, *supra* note 6, at 251 (proposing that vesting authority in a single agency increases the possibility of agency capture by concentrating decisionmaking power in one place and results in a disregard for the full range of impacts on ecosystem function).

³⁰ See Sivas, *supra* note 6, at 255.

³¹ It is worth noting that a model’s political viability may depend its geographic scope. For example, the Great Barrier Reef Marine Park Act applies only to the limited area of sea space that comprises the Great Barrier Reef Marine Park. Within the Marine Park, the Authority has full regulatory control. Outside of the Marine Park, other agencies retain and exercise their historic authorities. This is perhaps more politically viable than an integrated framework that applies across the entire range of waters under a country’s jurisdiction and strips agencies of their authorities across the board.

³² See Sanchirico, *supra* note 6, at 8; see generally Rosenberg, *supra* note 6, at 179 (recommending an ecosystem-based management approach in lieu of the current sectoral approach to ocean management); see also Sivas, *supra* note 6, at 256.

(1) a national mandate; (2) a forum that takes into account the interests of the public, industry, etc.; (3) a set of principles for making tradeoffs (because a new framework would determine rights, how allocative decisions are reached will have to relate to a set of principles for making these tradeoffs); and (4) data sharing across regional borders.³³ A lead agency (or “council”) with support from other agencies is also important, as is a system for resolving differences among coordinated agencies.³⁴

This model has a number of distinct benefits. Depending on their composition, councils might exercise jurisdiction over all resource uses within a defined space.³⁵ This well reflects the interrelationships between the component parts of the marine environment,³⁶ and promotes the goals integrated management and reduced conflicts among users. Also, because agencies retain historic authorities, this model is more politically viable than an integrated agency model.³⁷ Finally, diffusion in decision-making power may also reduce the likelihood of single agency capture.³⁸

Multiple agency management is favored by the Pew Oceans Commission (2003). Under the Pew model, federal legislation would create “Regional Ocean Ecosystem Councils” consisting of federal, state and tribal authorities with jurisdiction over space and resources.³⁹ Councils would develop and oversee enforceable regional plans to protect marine ecosystems.⁴⁰ Plans would include performance goals and indicators, be binding on all parties, and meet federal standards established in the legislation.⁴¹ Agency actions would have to be consistent with regional plans.⁴² Standing advisory committees to the councils would obtain the advice of fisherman, scientists, environmental organizations, local governments, and other interested parties.⁴³

The US Commission on Ocean Policy (2004) also called for⁴⁴ a multiple agency management governance approach based on the division of US waters into a series of large marine ecosystems (LMEs).⁴⁵ Councils for each LME would be made up of government and industry representatives and would agree to plans

³³ Rosenberg, *supra* note 6, at 185.

³⁴ *Id.* at 183.

³⁵ Eagle, *supra* note 5, at 157.

³⁶ *Id.* at 158

³⁷ Sivas, *supra* note 6, at 256.

³⁸ *Id.* *But see* Eagle, *supra* note 5, at 160 (proposing that a multi-use management approach also presents a problem of “diffuse – concentrated” interests, which may facilitate dominant interest groups prevailing upon the lead agency). The idea is that by giving various resource management agencies unlimited discretion in allocating resources among user groups, dominant interests and concentrated groups are better able to advocate and lobby for optimal results. For example, a diffuse group of casual sport fishermen who travel to the sea only occasionally are unlikely to put forth a coordinated effort to advance their interests.

³⁹ Pew, *supra* note 5, at 33; *see also* Eagle, *supra* note 5, at 156.

⁴⁰ Pew, *supra* note 5, at 33.

⁴¹ *Id.*

⁴² Eagle, *supra* note 5, at 156-7.

⁴³ Pew, *supra* note 5, at 34.

⁴⁴ WHITE HOUSE, *supra* note 15.

⁴⁵ Eagle, *supra* note 5, at 154

that would allocate uses in marine space.⁴⁶ The Commission on Ocean Policy did not call for a super agency or detract from existing agency authorities.⁴⁷

The multiple agency management model also has a number of potential drawbacks. Because some uses cannot be balanced there may be a tendency to “average” and apply middle-of-the-road management strategies, which may ultimately have a negative impact on the managed ecosystem.⁴⁸ Also, the process of consulting and coordinating within zones involves significant costs.⁴⁹ Finally, because the councils or lead agencies balance more uses and interests, achieving conservation goals under this model may be more difficult, especially if you assume that existing multi-use frameworks are ineffective at realizing objectives.⁵⁰ Similarly, relying on the development of a comprehensive management plan that pre-designates specific areas for all existing and anticipated uses may be unworkable in light of scientific uncertainty and the multiplicity of possible uses.⁵¹

v. Other Considerations of Governance

Regardless of the governance model chosen, a marine planning and zoning framework should provide for extensive public input, monitoring, and enforcement. Each of these features is examined more closely below.

a. Monitoring

“Monitoring and evaluation provide the link that enables planners and managers to learn from experience and helps governments and funding agencies at all levels to monitor the effectiveness of marine spatial management performance.”⁵² Clear management objectives give monitoring meaning. These objectives should be identified in the mandate authorizing the framework or in management plans. In the land use planning context, monitoring data are used in the periodic adaptation and review of land use plans. Review promotes dynamism and continuity. Similar provision should be made in marine zoning laws.

There are two types of monitoring.⁵³ One type assesses the state of the biodiversity within a management area.⁵⁴ The other assesses the performance of management systems and measures.⁵⁵ Monitoring of the first order may include a range of activities, such as modeling, laboratory and field

⁴⁶ *Id.*

⁴⁷ *Id.* at 155.

⁴⁸ *Id.* at 159.

⁴⁹ Sanchirico, *supra* note 6, at 9.

⁵⁰ Eagle, *supra* note 5, at 147.

⁵¹ Sivas, *supra* note 6, at 256.

⁵² UNESCO Intergovernmental Oceanographic Commission [IOC], *Marine spatial planning: A step-by-step approach toward ecosystem-based management*, at 87, IOC Manual and Guides, No. 53, ICAM Dossier No. 6 (2009).

⁵³ *Id.* at 86.

⁵⁴ *Id.*

⁵⁵ *Id.*

research, time-series measurements in the field, quality assurance, and data analysis, synthesis, and interpretation.⁵⁶ Both types of monitoring are critical to system effectiveness.

b. Enforcement and Compliance

“Mechanisms to ensure public accountability should . . . occupy a central place in any ocean governance reform plan.”⁵⁷

Voluntary compliance with the framework and its outputs can be promoted through education, agreements with stakeholders, technical assistance, self-regulation of stakeholder groups, and effective physical demarcation (such as buoys or landmarks demonstrating restricted or important areas).⁵⁸ The use of recognizable shapes in marine zoning maps can also promote compliance.⁵⁹

Government enforcement can take the form of inspections, negotiations with non-compliant persons, and legal action.⁶⁰ Inspection can draw on high-resolution photography, vessel monitoring systems, transponders, night vision equipment, and global positioning systems. Clear zoning regulations and permitting and licensing requirements will also optimize compliance.⁶¹

Accountability can be created both through institutional structure design (e.g. transparent decision processes, administrative appeal systems, etc.) and by ensuring that the judiciary maintains its traditional role as the ultimate backstop for the protection of public trust resources.

Australia’s Great Barrier Reef Marine Park Act has an elaborate enforcement and liability regime. Inspectors appointed by the Authority are empowered to enforce its civil and criminal provisions.⁶² The law enumerates offenses, including unpermitted fishing or mining, operation of a vessel causing damage in the marine park, unauthorized discharge of waste, and others.⁶³ Zoning plans themselves may also specify certain prohibited conduct and provide civil and criminal penalties.⁶⁴

The Great Barrier Reef Marine Park Act makes a number of remedies available to the government. They include undertakings,⁶⁵ enforceable Directions,⁶⁶ emergency directions,⁶⁷ remediation orders,⁶⁸ vessel monitoring directions,⁶⁹ directions limiting access to the marine park,⁷⁰ and injunctions.⁷¹

⁵⁶ *Id.* at 87.

⁵⁷ Sivas, *supra* note 6, at 252.

⁵⁸ UNESCO, *supra* note 46, at 85.

⁵⁹ McGrath, *supra* note 5 at 217.

⁶⁰ UNESCO, *supra* note 51, at 84.

⁶¹ *Id.*

⁶² Great Barrier Reef, *supra* note 25, at art. 43 (Austl.).

⁶³ *See generally id.* at art. 38.

⁶⁴ *Id.* at art. 38BA.

⁶⁵ If a person is thought to have contravened a civil penalty provision then he may give a written undertaking in which he commits to take specified actions to prevent, repair or mitigate harm of a specified kind in the park; not to engage in offensive conduct; or to pay a fee to prevent or mitigate harm. Breach of an undertaking permits the Ministry to apply to the federal court for an order directing compliance.

⁶⁶ Great Barrier Reef, *supra* note 25, at art. 61ADA.

c. Public Participation

Whichever governance model is chosen, public participation in the process is critical to ensuring transparency and viability of a marine planning and zoning system. Where and when it will occur will depend on the instrument and the governance model policymakers ultimately select.

Part II. Legal and Policy Context in St. Kitts and Nevis

Implementation of a comprehensive marine zoning framework will require due recognition and consideration of the authorities, obligations, and institutions currently in place in St. Kitts and Nevis that govern marine and coastal planning and resource management. The source of obligations and authorities may be statutes, treaties, or policies. This section surveys domestic and international laws in force in St. Kitts and Nevis that govern or relate to marine and coastal resources management and maritime affairs. It also surveys important national policies. Part III then analyzes the laws and policies that might support the development and implementation of a marine and coastal planning and zoning framework.

i. Regional and Extra-regional Obligations

The Federation's accession to international treaties and its membership in regional institutions such as the Caribbean Community (CARICOM) and the Organization of Eastern Caribbean States (OECS) has given rise to obligations in various sectors of relevance to marine and coastal planning and zoning, including pollution control, fisheries management and conservation, and protection of endangered species and their habitats. Because the prescriptions of regional and extra-regional obligations would drive and inform target and goal setting, a marine and coastal planning and zoning framework would promote compliance with regional and extra-regional obligations.

The following section surveys a handful of the most important obligations, emphasizing those that may be of direct relevance to marine and coastal planning and zoning.

a. Regional – CARICOM

- Caribbean Regional Fisheries Mechanism (CRFM). Member countries signed the Agreement Establishing the CRFM on February 4, 2002 to promote and facilitate “the responsible utilization of the region’s fisheries and other aquatic resources for the

⁶⁷ *Id.* at art. 61ACA.

⁶⁸ *Id.* at art. 61AHA.

⁶⁹ *Id.* at art. 61AAA.

⁷⁰ *Id.* at art. 61AEA.

⁷¹ *Id.* at art. 61AGA.

economic and social benefits of the current and future population of the region.”⁷² Conservation and protection of fish stocks and ecosystems is a priority objective of the CRFM. Strategic, Medium-Term, and Annual work plans guide activities of participating countries. These targets could inform the goals of a zoning system.

b. Regional – OECS

- St. George’s Declaration. The St. George’s Declaration (2000) is the benchmark environmental management framework in the Organization of Eastern Caribbean States (OECS) region. It is structured around twenty one principles. The St. George’s Declaration is implemented by OECS member countries at the national level through the National Environmental Management Strategy (NEMS). For more information on specific principles, refer to the section below treating the St. Kitts and Nevis NEMS.

c. Extra-regional – UN Convention on Law of the Sea

Under the United Nations Convention on the Law of the Sea (UNCLOS), coastal states have obligations to conserve marine living resources and protect and preserve the marine environment.⁷³ The Convention does not qualify this obligation.⁷⁴ It requires coastal states to take all measures necessary to prevent, reduce and control pollution from any source, as well as to protect and preserve rare or fragile ecosystems, the habitats of depleted, threatened or endangered species, and other forms of marine life.⁷⁵

The obligation to conserve marine living resources applies within each coastal state’s territorial sea, its exclusive economic zone (EEZ), and on the high seas (where all states must cooperate in conserving and managing living resources).⁷⁶

d. Extra-regional – Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena de Indias (Colombia), 1983)

The Cartagena Convention is “a comprehensive, umbrella agreement for the protection and development of the marine environment” providing the “legal framework for cooperative regional and national actions” in the wider Caribbean region.⁷⁷

⁷² See <http://www.caricom-fisheries.com/WhatisCRFM/AboutCRFM/tabid/56/Default.aspx> (last visited October, 26, 2010).

⁷³ United Nations Convention on the Law of the Sea (UNCLOS), arts. 246, 252, December 10, 1982, 1833 U.N.T.S. 397.

⁷⁴ Lee A. Kimball, *International Ocean Governance: Using International Law and Organizations to Manage Marine Resources Sustainably*, at 10, IUCN, Gland, Switzerland and Cambridge, UK. xii + 124 pp (2001).

⁷⁵ UNCLOS, *supra* note 72 at art. 194.

⁷⁶ Kimball, *supra* note 73 at 25.

⁷⁷ <http://www.cep.unep.org/cartagena-convention>.

The Convention requires the adoption of measures aimed at preventing and controlling pollution from ships and from seabed activities.⁷⁸ It also requires parties to take appropriate measures to protect and preserve fragile ecosystems.⁷⁹ In fulfilling their obligations, participating countries must “ensure sound environmental management, using for this purpose the best practicable means at their disposal . . . in accordance with their capabilities.”⁸⁰

e. Extra-regional – Convention on Biological Diversity and the Jakarta Mandate on Marine and Coastal Biological Diversity

The Convention, signed in 1992 by 150 countries, commits member nations to protect and maintain the earth’s “ecological underpinnings as we go about the business of economic development.”⁸¹ The three objectives of the Convention are: “the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.”⁸²

The conservation of marine and coastal biodiversity was an early priority of the Conference of the Parties (COP).⁸³ At the second COP in November 1995, the parties adopted a new global consensus on coastal and marine conservation which would become known as the Jakarta Mandate.⁸⁴ The mandate is an agreement on a plan of action for implementing the Convention.⁸⁵ Its five principal themes or focal areas – integrated marine and coastal area management, marine and coastal living resources, marine and coastal protected areas, mariculture, and alien species – are reflected in the program of work that the COP adopted in 1998 and the updated program elaborated in the annex to Decision VII/5.⁸⁶ The program of work sets goals and objectives for marine and coastal conservation, and identifies activities that will aid in their achievement.⁸⁷ Primary implementation responsibility for these activities rests with national governments, with the assistance of regional and international bodies, where appropriate.⁸⁸

Objectives of specific relevance to marine zoning include:

1. Encouraging the “application of the ecosystem approach, promot[ing] integrated multidisciplinary and multi-sectoral coastal and ocean management at the national level, and

⁷⁸ *Id.*

⁷⁹ Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, art. 10, March 24, 1983, 1506 U.N.T.S. 157.

⁸⁰ *Id.* at art. 4.

⁸¹ See <https://www.cbd.int/convention/guide/> (last visited October 26, 2010).

⁸² Convention on Biological Diversity, art. 1, December 29, 1993, 1760 U.N.T.S. 79.

⁸³ See <https://www.cbd.int/marine/pow.shtml> (last visited October 26, 2010).

⁸⁴ See <https://www.cbd.int/marine/pow.shtml> (last visited October 26, 2010).

⁸⁵ See www.biodiv.org/jm.html (last visited October 26, 2010); see also http://www.un.org/Depts/los/general_assembly/contributions_texts/scbd.pdf (last visited October 26, 2010).

⁸⁶ <https://www.cbd.int/marine/resources.shtml> (last visited October 26, 2010)

⁸⁷ Convention on Biological Diversity, Conference of the Parties Decision VII/5 at 10.

⁸⁸ *Id.*

encourag[ing] States in developing ocean policies and mechanisms on integrated coastal management.⁸⁹

2. The establishment and strengthening of “national and regional systems of marine and coastal protected areas integrated into a global network and as a contribution to globally agreed goals.”⁹⁰

ii. Domestic Laws and Policies

a. Policies

The goals of a marine and coastal planning and zoning framework are consistent with a range of existing national policies. Like treaty obligations, national policies may inform priority- and target-setting. This subsection explores the policies in place in St. Kitts and Nevis that might inform the goals and objectives of a marine zoning framework.

1. National Environmental Management Strategy and Action Plan (2005 – 2009)

The St. Kitts National Environmental Management Strategy (2005 – 2009) (NEMS) sets out actions and strategies to guide agencies in implementing the principles of the St. George’s Declaration (2000), the benchmark environmental management framework in the Organization of Eastern Caribbean States region. The NEMS sets out 48 environmental management strategies arranged in sections corresponding to seventeen of the Declaration’s twenty one principles, as well as specific activities that support these strategies and the agencies responsible for implementing them. The NEMS is intended to “guide programmes in environmental management over the long term.”⁹¹ At the end of its five-year period of applicability, agencies are expected to review progress on implementation and plan for another five-year cycle.⁹²

Objectives of relevance to marine zoning include:

1. Integration of environmental considerations into national development policies, plans and programs,⁹³ specifically:
 - a. Pursuit of “sustainable development policies aimed at . . . the conservation of biological diversity, the mitigation of adverse effects of climate change and the maintenance of essential ecological processes and life support systems.”⁹⁴
2. Improvement of legal and institutional frameworks,⁹⁵ specifically:

⁸⁹ *Id.* at 11.

⁹⁰ *Id.* at 15.

⁹¹ St. Kitts and Nevis National Environmental Management Strategy and Action Plan 2005 – 2009, *supra* note 3, at 5.

⁹² *Id.* at 6.

⁹³ *Id.* Principle 2 at 8.

⁹⁴ *Id.* Principle 2, Strategy 2 at 8.

⁹⁵ *Id.* Principle 3 at 9.

- a. The clarification and rationalization of regional and national environmental agencies – and the creation of new agencies where necessary – to maximize efficiency and accountability in management of the environment and natural resources;⁹⁶ and
 - b. The development, integration, strengthening, and enforcement of environmental legislation to implement the Principles of the St. George Declaration.⁹⁷
3. Protection of cultural and natural heritage⁹⁸, specifically:
- a. The institution of “appropriate measures, including legislation, to provide for the researching, documenting, protecting, conserving, rehabilitating and management of . . . areas of outstanding scientific, cultural, spiritual, [and] ecological significance.”⁹⁹

2. Medium Term Economic Strategy

The Medium-Term Economic Strategy Paper (MTESP) sets out policies and approaches which the Government of St. Kitts and Nevis will pursue to sustain growth and development. The plan identifies tourism as the “main engine of economic growth.”^{100,101} It also notes that the government is wholly committed to sustainable development and that there is a need for legislation that will address coastal zone and watershed management.¹⁰²

Medium Term Objectives of relevance to marine zoning:

- Promotion of sound environmental practices through enforcement,¹⁰³
- Adherence to all international environmental conventions;¹⁰⁴
- The institutionalization of greater capacities at the Department of the Environment;¹⁰⁵
- With regard to fisheries, the development of an effective monitoring, surveillance, and enforcement programme;¹⁰⁶ and
- Also with regard to fisheries, the promotion of scientific research.¹⁰⁷

3. The National Biodiversity Strategy and Action Plan

The National Biodiversity Strategy and Action Plan identifies gaps in information about ocean organisms as an issue requiring attention in St. Kitts and Nevis.¹⁰⁸ It also identifies a gap in conservation policies

⁹⁶ *Id.* Principle 3, Strategies 6, 7 at 9.

⁹⁷ *Id.* Principle 3, Strategy 9 at 10.

⁹⁸ *Id.* Principle 12 at 20.

⁹⁹ *Id.* Principle 12, Strategy 37 at 20.

¹⁰⁰ St. Kitts and Nevis Medium-Term Economic Strategy Paper 2003 – 2005, at 38.

¹⁰¹ Marine reserves and protected areas provide stable foundations for nature-based recreation and tourism activities. Because a marine zoning framework would likely promote the designation of marine reserves and other classes of marine protected areas, it likely would promote the interests of tourism and tourism-related sectors.

¹⁰² *Id.*

¹⁰³ *Id.* at 40.

¹⁰⁴ *Id.* at 41.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 32.

¹⁰⁷ *Id.*

aimed at marine life preservation and a lack of enforcement legislation.¹⁰⁹ A marine planning and zoning framework would address these gaps.

b. Federal Coastal Zone Management Laws

This section identifies existing federal laws that govern the various marine sectors, among them coastal planning and management, marine protected areas, fisheries, transit, and pollution control. Together these laws permit the government to regulate meaningfully activities in the sea and coastal zones and to declare marine protected areas.

1. Maritime Areas Act (1984)

The Maritime Areas Act (1984) defines the inland waters, territorial sea, contiguous zone, and exclusive economic zone (EEZ) of St. Kitts and Nevis and sets out the various rights and responsibilities of the government with respect to these areas. The act asserts the government's sovereign rights in the territorial sea and the sovereign right to conserve and manage resources in the EEZ.¹¹⁰ The government also has jurisdiction to protect and preserve the marine environment within the EEZ.¹¹¹

The Maritime Areas Act authorizes the Minister of Foreign Affairs to enact regulations¹¹² for the protection and preservation of the marine environment of both the territorial sea¹¹³ and the EEZ,¹¹⁴ and for the exploration and exploitation of the EEZ for economic purposes.¹¹⁵

2. National Conservation and Environmental Protection Act (NCEPA)(1987)

The National Conservation and Environmental Protection Act (NCEPA) is a comprehensive environmental statute providing for, *inter alia*, 1) the establishment and management of protected areas; 2) preparation of coastal zone management plans; 3) forestry, soil, and water conservation; and 4) the protection of wild animals.¹¹⁶ A 1996 Amendment provides for the entry into force of various international agreements and conventions.¹¹⁷ Those of potential relevance to marine zoning are the Convention on International Trade in Endangered Species of Fauna and Flora, the UN Convention on Climate Change, the UN Convention on Biological Diversity, and the Basel Convention on the control of Trans-boundary Movement of Hazardous Waste.

¹⁰⁸ National Biodiversity Strategy and Action Plan for St. Kitts and Nevis (2004) at 79.

¹⁰⁹ *Id.* at 81.

¹¹⁰ The Maritime Areas Act, 1984, No. 3 of 1984 (St. Kitts and Nevis) (August 30, 1984) at Part III, §12.

¹¹¹ *Id.*

¹¹² *Id.* at Part VII, §29.

¹¹³ *Id.* at Part VII, §29(2)(b).

¹¹⁴ *Id.* at Part VII, §29(3)(b).

¹¹⁵ *Id.* at Part VII, §29(3)(d).

¹¹⁶ See generally The National Conservation and Environment Protection Act, 1987, No. 5 of 1987 (St. Kitts and Nevis) (April 27, 1987).

¹¹⁷ The National Conservation and Environment Protection (Amendment) Act, 1996, No. 12 of 1996 (St. Kitts and Nevis) (April 9, 1996).

The NCEPA mandates the preparation of a coastal zone management plan and regulations to control development in the coastal zone.¹¹⁸ Administrative responsibility for the act lies with the Minister responsible for the Environment, in consultation with the Conservation Commission.¹¹⁹

Under the act, the coastal zone extends two kilometers seaward of the mean low water mark, and includes the foreshore and floor of the sea.¹²⁰ The coastal zone management plan may declare protected beaches and, within areas covered by the declaration, prohibit fishing, anchoring of boats and docking of cruise ships, disposal of waste, water skiing, sand mining or dredging, or removal of “treasure or artifact” from the sea.¹²¹ It is noteworthy that Section 33 preserves any “vested rights enjoyed by fisherman engaged in fishing as a trade in or over any beach.”¹²²

3. Development Control and Planning Act (2000)

The purpose of the Development Control and Planning Act (DCPA) is to assist in the orderly, efficient, and equitable planning, allocation and development of the resources of St. Christopher.^{123,124} The DCPA’s definition of land includes submerged land extending to seaward limit of territorial sea, which the Maritime Areas Act sets at 12 miles seaward of a landward baseline.¹²⁵ Thus, development occurring thereon may only proceed with permission of the Development Control and Planning Board created by the Act.¹²⁶

The Development Control and Planning Board is also responsible for preparing development plans.¹²⁷ Development plans may provide for zoning,¹²⁸ allocate land for the protection of marine life,¹²⁹ and/or protect the coastal zone¹³⁰ (defined as extending to seaward limit of the territorial sea).

In carrying out its duties (i.e. producing development plans), the Board may designate comprehensive planning areas for conservation and other purposes¹³¹ and may designate environmental protection

¹¹⁸ National Conservation and Environment Protection Act, *supra* note 115, at Part VI, §25.

¹¹⁹ It is uncertain whether a Conservation Commission was ever convened.

¹²⁰ *Id.* at Part I, §2.

¹²¹ *Id.* at Part VI, §31.

¹²² *Id.* at Part VI, §33.

¹²³ The Development Control and Planning Act, 2000, No. 14 of 2000 (St. Kitts and Nevis) at Part I, §4(d).

¹²⁴ The Constitution of St. Kitts and Nevis reserves to the Nevis Island Administration responsibility for land use planning. However, it does not address the Nevis Island Administration’s responsibility for marine or coastal zone planning.

¹²⁵ *Id.* at Part I, §2.

¹²⁶ *Id.* at Part IV, §20.

¹²⁷ *Id.* at Part II, §6(3)(c).

¹²⁸ *Id.* at Schedule 2, Part III.

¹²⁹ *Id.* at Schedule 2, Part IV.

¹³⁰ *Id.*

¹³¹ *Id.* at Part III, §11(5)(e).

areas.¹³² For both, in consultation with Minister Responsible for NCEPA, the Board is responsible for developing management plans.¹³³

Management plans may contain special resource and use areas in which the Minister (in consultation with the minister responsible for NCEPA) may permit and prohibit certain activities, such as designating protected swimming and surfing areas; designating anchoring, mooring, and beaching areas; and designating where water-skiing, wind surfing, or other water sports may occur.¹³⁴ Management plans may also arrange for protection of marine flora and fauna, and specifically provide for the regulation of hunting and fishing to achieve this purpose.¹³⁵

4. National Conservation and Environmental Management Act (NCEMA) (not yet enacted)

The NCEMA would update and modify the NCEPA. Among other things it provides for the development of coastal zone management plans. Section 38 of the NCEMA requires the department responsible for the environment to prepare a coastal zone management plan which “indicat[es] the strategy which the Department proposes to adopt for the management of land and marine areas within the coastal zone.”¹³⁶

The coastal zone includes any area of land less than 15 meters above mean sea level within a limit of one kilometer landward of the mean high water mark, and the foreshore and the seabed with a limit of two kilometers seawards of the mean low water mark.”¹³⁷

Coastal zone management plans, the Act specifies, should illustrate the coastal zone management strategy,¹³⁸ and allocate land or marine areas or combination thereof as protected areas.¹³⁹

Within the coastal zone, activities may be prohibited or regulated, including the capture or killing of marine plants or animals, including fish; drainage of wetlands; removal of vegetation from a beach; removal of sea barriers; sand mining or dredging; anchoring of pleasure boats and other vessels, including cruise ships; water skiing; the driving of all-terrain vehicles; and the disposal of waste matter.¹⁴⁰

¹³² *Id.* at Part III, §12(1).

¹³³ *Id.* at Part III, §13(1).

¹³⁴ *Id.* at Part III, §13(3).

¹³⁵ *Id.* at Part III, §13(2)(a).

¹³⁶ The National Conservation and Environment Management Act, No. ___ of 2009, (St. Kitts and Nevis) (not yet enacted) at Part IX, §38(1).

¹³⁷ *Id.* at Part I, §2.

¹³⁸ *Id.* at Part IX, §38(3).

¹³⁹ *Id.* at Part IX, §38(3)(a).

¹⁴⁰ *Id.* at Part IX, §38(5).

c. Federal Marine Protected Areas Laws

1. NCEPA (1987)

The NCEPA allows the Minister responsible for Environment to designate marine areas as a) national parks, b) nature reserves, c) botanic gardens, d) marine reserves, e) historic sites, or f) scenic sites in order to, inter alia:

- Sustain natural areas important for the protection and maintenance of life-support systems and basic ecological processes;
- Preserve biological diversity that may be of special concern and the land and marine habitants upon which survival of species depends; and
- Protect selected natural sites of special scientific or ecological value.¹⁴¹

Management and administration of declared MPAs is the responsibility of the Minister (along with the Conservation Commission).¹⁴² The Conservation Commission must develop management plans for protected areas and may prescribe certain activities within protected areas.¹⁴³ Plans require the approval of Minister and must be revisited at least every five years to account for new information.¹⁴⁴ Regulations may set out prohibited activities and prescribe the manner of protected area operation.¹⁴⁵

2. Fisheries Act (1984)

The Fisheries Act authorizes the Minister to declare, by order, marine reserves and fishing priority areas in any area of fishery waters (the entire extent of EEZ, territorial waters, and internal waters).¹⁴⁶

Fishing priority areas are places where the Minister feels special measures are necessary to ensure that authorized fishing is not impeded.¹⁴⁷

Marine reserves are areas where the Minister feels that special measures are necessary to protect the flora and fauna of the designated areas; preserve breeding grounds and habitat; allow for natural regeneration of life; promote scientific research; or to preserve and enhance natural beauty.¹⁴⁸ Within these areas, it is illegal to take fish, destroy flora and fauna other than fish, dredge, pollute, or build without prior authorization.¹⁴⁹

¹⁴¹ National Conservation and Environment Protection Act, *supra* note 115, at Part II, §4.

¹⁴² *Id.* at Part III, §7.

¹⁴³ *Id.* at Part III, §13.

¹⁴⁴ *Id.*

¹⁴⁵ *Id.* at Part X, §56.

¹⁴⁶ The Fisheries Act, 1984, No. 4 of 1984 (St. Kitts and Nevis), Part III.

¹⁴⁷ *Id.* at Part III, §21.

¹⁴⁸ *Id.* at Part III, §23.

¹⁴⁹ *Id.* at Part III, §§23(2),(3).

Regulations can set out rules for the management and protection of marine reserves and fishing priority areas.¹⁵⁰

3. NCEMA (not yet enacted)

The NCEMA would update the NCEPA. It allows the Minister responsible for the Environment, in consultation with the Conservation Commission, to designate protected areas.¹⁵¹ Schedule 1 lays out the various classes of protected areas and their purposes. Part IV sets out requirements for management of protected areas.

The Commission would assist in the selection of protected areas and the maintenance and development of the national parks in St. Kitts and Nevis.¹⁵²

The Act also calls for the Department of the Environment's collaboration with the Department of Physical Planning and Development Control to develop strategies to promote environmentally sound and sustainable development in areas adjacent to protected areas.¹⁵³

d. Federal Laws, Other Sectors

If implemented, a marine and coastal zoning and planning framework may affect management of resources and activities governed by other statutes, e.g. placement of navigational aids, shipping lanes, undersea telecommunications and electricity cables, etc. This section identifies several important statutes and authorities that a marine zoning plan likely will implicate.

1. Merchant Shipping Act, 2002

Of particular relevance to marine zoning, the Act provides for registration of vessels;¹⁵⁴ prevention of collisions and safety of navigation;¹⁵⁵ the establishment and management of aids to navigation;¹⁵⁶ and prevention of pollution from ships¹⁵⁷.

2. Fisheries Act, 1984

The Fisheries Act of 1984 aims to provide an institutional framework for the "management, planning, development, and conservation of fishery resources."¹⁵⁸ Administration of the Act is the responsibility of the Chief Fisheries Officer, and if one is not appointed, then the Chief Agricultural Officer.¹⁵⁹ Section

¹⁵⁰ *Id.* at Part V, §40(2)(p).

¹⁵¹ The National Conservation and Environment Management Act, *supra* note 135, at Part II, §3.

¹⁵² *Id.* at Part III, §4(3).

¹⁵³ *Id.* at Part VIII, §31.

¹⁵⁴ The Merchant Shipping Act, 2002, No. 24 of 2002, (St. Kitts and Nevis) at Part I, §6.

¹⁵⁵ *Id.* at Part VI.

¹⁵⁶ *Id.* at Part VI, §162.

¹⁵⁷ *Id.* at Part VII, §169.

¹⁵⁸ The Fisheries Act, *supra* note 145, Preamble.

¹⁵⁹ *Id.* at Part II, §§3(1)-(3).

4 requires the Chief Fisheries Officer to “prepare and keep under review a plan for the management and development of fisheries in the fishery waters.”¹⁶⁰

The Act allows for and anticipates regional cooperation in the regulation of fisheries, e.g. the Caribbean Regional Fisheries Mechanism. It allows the responsible Minister to enter into agreements with other countries or organizations in the region to collaborate in developing a uniform licensing system, enforcement mechanisms, and other fisheries management systems.¹⁶¹ Any agreement entered into should be published as an order in the Gazette and then approved by Parliament.¹⁶²

Section 25 lists prohibited fishing methods.¹⁶³ Section 40 authorizes the Minister to make regulations for the management, development, and conservation of fisheries.¹⁶⁴

The Act also lists offenses, including prohibited fishing methods, and associated punishments. In order to enforce the provisions of the Act, the Minister can designate any persons to enforce the Act. This may include “members of the enforcement authority of any country or of any regional or sub-regional marine enforcement entity.”¹⁶⁵

3. Fisheries Regulations, 1995

The Regulations contain conservation measures for lobster, turtles, conch, coral, sponges, marine algae, sea stars, and aquarium fish.¹⁶⁶ The regulations also affirm that in fishery waters, no person or company may introduce pollutants, poisons, or other harmful substances.¹⁶⁷

4. The Port Authority Act, 1981

The Port Authority Act creates the Saint Christopher and Nevis Port Authority,¹⁶⁸ which is responsible for developing an integrated system of lighthouses, ports, and port services, and regulating navigation to the ports.¹⁶⁹

The Port Authority, with the approval of the Minister of Finance, has the authority to make regulations concerning the

[. . .] (c) controls and prohibitions on the doing or omission of any thing or class of things within the limits of any port; (d) the regulation, restriction and control (without prejudice to the conduct of navigation) of the depositing of any substance, solid matter,

¹⁶⁰ *Id.* at Part II, §4.

¹⁶¹ *Id.* at Part II, §§6(1)(a)-(g).

¹⁶² *Id.* at Part II, §6(2).

¹⁶³ *Id.* at Part III, §25.

¹⁶⁴ *Id.* at Part V, §40.

¹⁶⁵ *Id.* at Part III, §27.

¹⁶⁶ The Fisheries Regulations, 1995, No. 11 of 1995 (St. Kitts and Nevis) at Part VI, §§18-22.

¹⁶⁷ *Id.* at Part VII, §38.

¹⁶⁸ The Port Authority Act, 1981, No. 8 of 1981 (St. Kitts and Nevis) at Part 1, §3(1).

¹⁶⁹ *Id.* at Part II, §§17(1),(3).

article or thing polluting or likely to cause pollution of the waters of any port; and (e) the regulation of traffic and navigation of ships within the limits and approaches to a port and all matters relating to the protection of life and property.¹⁷⁰

5. The Maritime Areas (Establishment of Safety Zones Around Installations) Regulations, 1995

These regulations prohibit ships and other vessels from anchoring in the safety zone around Skantel submarine cables.¹⁷¹

e. Nevisian Laws

The 1983 Constitution of the Federation of St. Kitts and Nevis reserves certain powers to the Nevis Island Administration.¹⁷² Of relevance to marine zoning is the power to regulate fisheries.¹⁷³ The following ordinances appear to reflect this power and are also relevant.

1. The Nevis Coastal Protection Levy Ordinance

The Nevis Coastal Protection Levy Ordinance¹⁷⁴ allows the member of the Administration responsible for the Environment to appoint an Advisory Committee to inform him or her on:

- Measures for protecting Coastal Areas against the ravages and any other natural or man-made disasters;
- Protection and preservation of the marine environment; and
- The causes, nature, extent and prevention of damage to the Coastal Area.¹⁷⁵

2. Zoning Ordinance (1991)

The Nevis Zoning Ordinance provides for the establishment of marine parks in Nevis.¹⁷⁶

3. Nevis Fisheries Law

The Nevis Island Administration's Fisheries Department operates using the federal Fisheries Act of 1984. Nevis does not have a separate fisheries ordinance.

¹⁷⁰ *Id.* at Part VI, §59(1).

¹⁷¹ The Maritime Areas (Establishment of Safety Zones Around Installations) Regulations, 1995, No. 13 of 1995 (St. Kitts and Nevis) at §2.

¹⁷² FED. OF ST. KITTS AND NEVIS CONST., ch. X, §106(1)

¹⁷³ *Id.* at §106(1)(d).

¹⁷⁴ The Nevis Island Coastal Protection Levy Ordinance, 2002, No. 3 of 2002 (Nevis Island).

¹⁷⁵ *Id.* at §4.

¹⁷⁶ See <http://www.fao.org/fi/oldsite/FCP/en/KNA/profile.htm>.

Part III. Analysis and Recommendations

Sufficient authority exists in St. Kitts and Nevis to regulate meaningfully activities occurring in the coastal zone and to declare marine protected areas. Until a comprehensive marine and coastal planning and zoning framework is in place, policymakers in St. Kitts and Nevis can utilize these legislative tools to protect the most sensitive coastal and marine areas.

Some have referred to this as the “building block” approach to comprehensive marine and coastal planning. Of the legislative tools available for the interim protection and management of the coastal zone, the clearest authority exists in the NCEPA (mandating coastal zone management plans and permitting declaration of various classes of MPAs); the Fisheries Act (authorizing declaration of marine reserves); and the DCPA (authorizing the Planning Board to develop management plans for environmental protection areas which can designate protected swimming and surfing areas; anchoring, mooring, and beaching areas; and where water-skiing, wind surfing, or other water sports may occur).¹⁷⁷ The broadest authority rests in the Ministry of Foreign Affairs under the Maritime Areas Act, which authorizes the Minister to enact regulations for the protection and preservation of the marine environment of the territorial sea and EEZ, though this authority is largely dormant.

Furthermore, existing laws could support many of the specific prescriptions of the marine zoning plan contemplated by Component 1 of the BioTA project. For example, the plan targets anchoring, jet-skiing, kite boarding, siting of marinas, mooring, SCUBA diving, surfing and wind-surfing, swimming, and snorkeling, *inter alia*. Within environmental protection areas the DCPA may permit or prohibit anchoring, mooring, and beaching of boats, as well as water-skiing, wind surfing, or other water sports. Similarly, under NCEPA coastal zone management plans may identify protected beaches and prohibit the anchoring of boats and docking of cruise ships, water skiing, and sand mining or dredging in these areas. Annex 1 identifies how various other prescriptions could be given immediate effect under existing laws.

While these management tools are both useful and powerful, alone they provide insufficient foundation for a dynamic marine and coastal planning and zoning framework. For example, current laws do not provide an infrastructure for coordinating interagency decision-making across sectors or provide a set of ecosystem-based principles to guide agency actions. Nor do they provide for comprehensive, science-based marine planning, the yield of which may be a zoning plan. These gaps are characteristic of the “hodgepodge of individual laws” implemented by “sector based” agencies that results in piecemeal management of ocean resources and the inability to respond to complex marine management challenges.

A marine and coastal planning and zoning framework is consonant with the stated policies of the government of St. Kitts and Nevis. A marine and coastal planning and zoning framework would promote “the conservation of biological diversity, the mitigation of adverse effects of climate change and the maintenance of essential ecological processes and life support systems.” It would also help to clarify

¹⁷⁷ There is notable overlap of authority in several areas under the existing legal framework. A marine zoning framework would rationalize existing laws and clearly define agency responsibilities.

and rationalize national environmental agencies to maximize efficiency and accountability in management of the environment and natural resources and help to protect the cultural and natural heritage of St. Kitts and Nevis.

Government officials discussing the best way to develop and implement a zoning and planning framework at a workshop at Basseterre on July 19 and 20, 2010, concluded that only new or amended legislation would generate the clout a new system would require to function. It was unclear whether participants believed a “networking” approach would supply sufficient clout, though “networking” too should be considered as a way of conferring legal force. The preference of those attending the workshop was to amend the Fisheries Act or the National Conservation and Environmental Management Act (NCEMA) (currently under review in parliament) to allow for a marine and coastal planning and zoning framework that would be implemented in a decentralized fashion by multiple agencies. Amending the DCPA was not fully discussed at the workshop, but it too merits consideration. Participants definitively ruled out the “Integrated Agency” model due to its lack of political viability.

The analysis below explores four options for implementing a new marine and coastal resources management framework.

i. Amending DCPA to Allow for Marine Planning and Zoning

The DCPA defines “land” as the submerged land extending to seaward limit of territorial sea (12 nautical miles), and it permits the development of management plans for environmental protection areas. Within these areas the planning board may set out where water-skiing, wind surfing, or other water sports, swimming, surfing, anchoring, mooring, and beaching may occur. The Board may also plan for the protection of marine flora and fauna, and regulate hunting and fishing in order to accomplish this. The act thus allows for small-scale marine and coastal planning. Despite the apparent usefulness of this tool, officials in the Department of Physical Planning have suggested the DCPA is principally a land-use management statute, and that the Department has always viewed the high-water mark as the limit of the Board’s jurisdiction.

a. Planning

To implement a marine planning and zoning framework under this approach, an amendment would expand the Planning Board’s existing authority to include the creation of marine management and zoning plans. The Planning Board would have sole lead responsibility for developing zoning plans, though the amendment would provide explicitly for the participation of other interested agencies and the public through committee meetings, public hearings, and opportunities for public comment at important points in the process. This approach capitalizes on existing planning infrastructure and institutional knowledge.

The DCPA creates a strong terrestrial planning infrastructure. It creates the Development Control and Planning Board responsible for preparing and periodically reviewing and amending development plans. The Board and agency house institutional knowledge and experience of developing terrestrial zoning

plans. The marine planning process would be similar in important respects and this knowledge and experience would be of great value.

b. Conferring Legal Force

The amendment would need to set out how plans would bind agencies and users. Zoning plans would ideally be legislative instruments carrying the force of law. If not, plans could acquire the force of law through the regulatory process. In the latter case, each agency with responsibility for regulated activities would pass regulations to implement the marine and coastal zoning plans developed by the DCPA.

c. Implementation

As noted, implementation would occur at the agency level. An amendment would authorize the Planning Board to comprehensively plan marine space. Agencies would implement and enforce the plans by incorporating the objectives and principles of the plan into their decision-making processes consistent with their existing statutory and regulatory authorities.

d. Miscellaneous

If this approach were taken, there would need to be an increase in the budget allocation to the Planning Board for new staff, resources, and equipment.

ii. Convening an Ocean Planning and Management Council Responsible for Ocean Management Planning by Networking Existing Legislation

Under this model, the authorizing mandate (issued by the Prime Minister or the Cabinet) would set out ecosystem based priorities for management of ocean resources, identifying zoning plans as a means of accomplishing these priorities. It would require agencies with regulatory responsibility for ocean resources and activities to realize priorities identified in the instrument by complying with zoning plans produced by a Planning Council.

a. Planning

A Planning Council comprised of representatives from various agencies with marine resource management portfolios would develop zoning plans. While the Planning Council would have sole lead responsibility for developing zoning plans, the authorizing instrument would provide explicitly for the participation of the public through committee meetings, public hearings, and opportunities for public comment at important points in the process.

b. Conferring Legal Force

Under this model, the executive would issue a policy statement to bind the actions of line ministries. Workshop attendees noted that in St. Kitts and Nevis a Cabinet Decision would be the appropriate tool. In the United States the analogous tool is the Executive Order.

The policy statement would bind agencies to do as directed. In this case, the executive would direct them to develop a marine zoning management plan and to coordinate their activities to ensure that it was implemented faithfully. To realize the objectives and goals of the plans, agencies would ensure that their prospective actions and activities are compatible with the plan. This may require the drafting of new regulations. For example, if the plan were to identify a need to curb or ease fishing in a particularly sensitive spawning area, and existing rules permitted uncontrolled fishing in the area, the agency would be required to issue a regulation to ban or control fishing in the area identified to achieve the purposes of the plan.

While a mandate housed in a policy statement offers a quicker route to implementation, it may subject the framework to changing political circumstances. Also, it does not provide the same clarity of authority that new legislation would.

c. Implementation

Under this arrangement, agencies or ministries would retain their traditional authorities but exercise them consistent with the agreed-upon plan. In addition to the standard compliment of management tools (i.e. enforcement and monitoring infrastructure), the legal instrument would need to provide for 1) an inter-agency coordination mechanism, 2) a conflict resolution process, 3) an information sharing framework, 4) a lead agency, and 5) public participation.

d. Miscellaneous

Users would ultimately be bound by regulations implementing the management or zoning plans.

Also note that a similar framework could be implemented legislatively.

iii. Amending NCEMA to Allow for Marine Planning and Zoning

Marine zoning and the NCEMA share a number of goals. For example, the NCEMA aims to assign administrative responsibility for environmental management within the Federation, and

“[to] conserve[e] and [ensure the] sustainable use of the natural heritage of Saint Christopher and Nevis, including the conservation of biological diversity, the protection of threatened and endangered species and their habitats, [. . .] and the conservation of significant terrestrial and marine ecosystems[. . .].”¹⁷⁸

¹⁷⁸ The National Conservation and Environment Management Act, *supra* note 135, at Part I, §3.

Furthermore, participants at the July 20 workshop recommended implementing a marine zoning framework by “piggy-backing” on the NCEMA law currently before parliament; expanding the powers delegated in the Act to the Conservation Commission to include marine planning. This approach has several advantages. Principal among them is its procedural convenience.

Compared to the Planning Board, however, the Conservation Commission would not have the institutional knowledge or experience of planning or leading a comprehensive planning effort, making this option relatively less appealing than amending the DCPA.

a. Planning

The NCEMA would establish a twelve-member National Conservation Commission¹⁷⁹ responsible for advising the Department of the Environment on the selection of protected areas, and the control, maintenance and development of the national parks, botanical gardens, and beaches of Saint Kitts and Nevis. An amendment could broaden the scope of the Commission’s duties to include the development of marine zoning plans. The Commission could also coordinate implementation. Thus the Conservation Commission could assume a lead agency role or function as a Secretariat for the marine planning and zoning framework. Alternatively, rather than the Conservation Commission, the amendment could authorize the Ministry of Marine Resources to undertake these functions.

While the Conservation Commission would surely represent a diverse range of interests and a good deal of knowledge and expertise, as NCEMA is written, it is not composed entirely of government representatives. While public participation in the marine planning process is critical, the initial development of marine zoning plans by a group comprised of government and civil society stakeholders would be inefficient and unproductive. Essential planning functions are traditionally the province of government agencies. The Conservation Commission could be convened to serve an advisory function after plans are developed.

b. Conferring Legal Force

The amendment would need to set out how plans would bind agencies and users. Zoning plans would ideally be legislative instruments carrying the force of law. If not, plans could acquire the force of law through the regulatory process. In the latter case, each agency with responsibility for regulated activities would pass regulations to implement plans.

¹⁷⁹ See *id.* at sch. 9, §2(3)(The Director of Physical Planning; the Director of Environment; one representative of non-governmental organizations operating in St. Kitts and one from Nevis; one representative from the Water Department; three representatives from the business community with interests in recreational or tourism activity in connection with the country’s parks and protected areas, including but not limited to the marine, hotel, restaurant, taxi, travel, fishing, and dive industries; and four people knowledgeable or experienced in one or more of the fields of environmental management, ecology, environmental health, engineering, natural resources economics, and law.)

c. Implementation

Individual agencies would implement the plan according to their historic authorities. Agencies would conform their actions and activities to the rules elaborated in plans.

d. Miscellaneous

New or amended legislation would establish the required planning and zoning infrastructure and include mechanisms for monitoring, evaluation, inter-agency coordination, inter-agency conflict resolution, public and inter-agency participation, and enforcement.

iv. Amending NCEPA or NCEMA¹⁸⁰ to Permit Multi-Use Zoning of Marine Protected Areas

The NCEPA currently provides for the declaration and administration of various classes of marine protected areas. The NCEPA explicitly requires the Conservation Commission to develop management plans for areas so declared. One way to implement the zoning plans contemplated by Component 1 of the BioTA project may be to amend the NCEPA (or NCEMA, currently under consideration in parliament) to authorize multi-use zoning within protected areas. The amendment might also amplify the purposes for which a marine protected area can be declared to include, for example, ecosystem-based management and conservation of marine resources, as well as widen inter-agency and stakeholder participation in the MPA selection and planning process. The amendment would also need to provide for periodic system-wide reviews by a central body. The result is something more akin to a marine protected area network than a comprehensive marine planning and zoning framework.

Proceeding in this way would provide sufficient authority to implement marine zoning plans, as those produced by the science team and partners under Component 1 of the BioTA project.

This model would likely require all of the effort typically associated with amending existing legislation and yield a sub-optimal framework because it favors area-by-area regulation of marine space and complicates the implementation and compliance picture. Agencies and stakeholders alike would need to be mindful of several plans.

a. Planning

This model would rely on an expanded version of NCEPA's existing planning framework, which is designed to assist in the selection and designation of marine protected areas rather than to comprehensively plan the entire extent of federal waters. Once a protected area is declared, the amendment would provide that a zoning plan would have to be developed within a certain timeframe. The current NCEPA planning framework gives the Conservation Commission (comprised of government and civil society stakeholders) a consultative role in the selection and administration of marine reserves.

¹⁸⁰ The NCEPA and NCEMA do not differ materially in their coverage or treatment of marine protected areas declaration, administration, or management.

The amendment would need to widen inter-agency and stakeholder participation in the planning process. Planning would be most simply conducted by a central authority with input from agencies with marine interests and stakeholders.

b. Conferring Legal Force

The amendment would need to set out how plans would bind agencies and users. Zoning plans would ideally be legislative instruments carrying the force of law.

c. Implementation

Implementation would occur at the agency level consistent with marine zoning plans developed by a central planning authority. Agencies would implement and enforce the plans by incorporating the objectives and principles of the plan into their decision-making processes, consistent with existing statutory and regulatory authorities.

v. A Note on Federalism

Because marine resources and maritime management is largely a federal prerogative, in most material respects a marine zoning framework as elaborated above would not derogate the powers reserved to the Nevis Island Administration or present significant federalism or jurisdictional issues. One important area, however, requires consideration. §106(1) of the 1993 Constitution of the Federation of St. Kitts and Nevis vests the power to regulate Nevis Island fisheries in the Nevis Island Administration. Because a federal marine zoning plan would likely make some provision for how fisheries are managed in Nevis, and because of the above-noted reservation of power to the Nevis Island Administration, a federal mandate alone is insufficient to bind the Administration's actions as they relate to fisheries.

Importantly, if a marine zoning framework were implemented, the Nevis Island Fisheries department would retain most of its jurisdiction. The models described above contemplate decentralized implementation of a centrally-developed zoning plan. If adopted, the Nevis Island fisheries authority would surrender some planning control to the central planning entity, but would retain its historic authority to implement the new plans. There would be no effect on the Nevis Island Fisheries Authority's actions in areas not covered by the plan.

A possible solution to this quandary would be for the Nevis Island Administration and/or Fisheries Department to contract with the federal government. The agreement would need to explicitly require compliance with plans.

Part IV. Conclusions

Marine zoning is consistent with the policies of the government of St. Kitts and Nevis.

Implementation of a comprehensive marine and coastal planning and zoning framework likely will require the enactment of new legislation or amendment of existing legislation. New or amended legislation would establish the required planning and zoning infrastructure and include mechanisms for planning, monitoring, evaluation, inter-agency coordination, inter-agency conflict resolution, and enforcement. The new framework would ultimately enhance responsiveness to pressing marine issues and improve the government of St. Kitts and Nevis' ability to respond to complex challenges to the integrity of marine ecosystems.

Short of enacting new legislation, there are things that government and policymakers could do to improve marine management. The Government should consider immediately adopting a coastal zone management plan under either the NCEPA or the DCPA that reflects, to the extent possible, the zoning plan contemplated by Component 1 of the BioTA project. Similarly, the Government should consider immediately designating marine reserves or protected areas to preserve highly sensitive areas under either the NCEPA or the Fisheries Act reflecting, to the extent possible, the zoning plan contemplated by Component 1.

Annex 1

St. Kitts and Nevis Marine Planning and Zoning Framework

Existing Regulatory Authorities

Target	Law(s)	Specific Provision
<i>Tourism-Related</i>		
Anchoring, mooring	DCPA, NCEPA, Port Authority Act	<p>Management plans for special use areas may specify anchoring, mooring, and beaching areas. DCPA §13(3).</p> <p>Coastal zone management plans may prohibit anchoring of boats and docking of cruise ships in certain areas. NCEPA §31.</p> <p>PAA §59A(1)(f) permits the Port Authority to regulate the mode and place of mooring, anchoring, and berthing of ships.</p> <p>The Fisheries Regulations of 1995 Part VII, §37(2) forbids anchorage in fisheries priorities areas, except in cases of emergency.</p>
Water Sports (Jet-Skiing, kite boarding, e.g.)	DCPA, NCEPA	<p>Management plans may contain special resource and use areas where water-skiing, wind surfing, or other water sports may occur. DCPA §13(3)</p> <p>Coastal zone management plans may declare protected beaches and, within areas covered by the declaration, prohibit water skiing, <i>inter alia</i>. NCEPA §31.</p>
SCUBA diving	Fisheries Act, Fisheries Regulations	The Minister responsible for fisheries may regulate the use of SCUBA gear. Fisheries Act

		§40(2)(g)
		The use of SCUBA or HOOKAH gear for fishing without the written approval of the Chief Fisheries Officer is prohibited. Fisheries Act (Regulations, 1995) §26.
Swimming, snorkeling	DCPA	Within environmental protection areas, the Planning Board may designate swimming areas. DCPA §13(3)(a).
Siting of marinas	DCPA	Construction of marinas implicates the DCPA like any other building or development project.
<i>Fishing-Related</i>		
Coastal Pelagics	Fisheries Act	
Coastal Demersals	Fisheries Act	
Deep Slope/Shelf Demersals	Fisheries Act	
Lobster	Fisheries Act (Regulations)	Section 18 prohibits the taking of undersized, moulting, and egg-carrying lobsters. It also prescribes acceptable and unacceptable methods of capture. Fisheries Act (Regulations, 1995) §18.
Conch	Fisheries Act (Regulations)	The taking, sale, or purchase of immature conch is prohibited. Fisheries Act (1995 Regulations) §20.
Bait fish	Fisheries Act	Among the aims of the Fisheries Act is the “management, planning, development, and conservation of fishery resources.” (Preamble to Fisheries Act 1984) Section 40 authorizes the Minister to make regulations generally for the management and development of fisheries. Action has not yet been taken under this authority to regulate bait fisheries.
<i>Transportation/Industrial</i>		
Geothermal energy production	DCPA	Construction of geothermal energy production facilities implicates the DCPA like any other building or development

		project. It is unknown whether additional laws govern energy production, specifically.
Port siting	Port Authority Act	The Port Authority Act vests in the Port Authority the power to develop a coordinated and integrated system of ports, lighthouses and port services. Port Authority Act §17(1).
Sand mining	NCEPA, Fisheries Act	Coastal zone management plans may declare protected beaches and, within areas covered by the declaration, prohibit sand mining or dredging. NCEPA §31. A permit must be obtained prior to taking or mining of sand within marine reserves. Fisheries Act §27.
Cruise ship areas	NCEPA, Port Authority Act	Coastal zone management plans may declare protected beaches and, within areas covered, prohibit anchoring of boats and docking of cruise ships, <i>inter alia</i> . NCEPA §31 The Port Manager may direct where any ship shall be berthed, moored or anchored and the method of anchoring within the port. He or she may also regulate the moving of ships within the port and the approaches. PAA §52
Ferry routes	Port Authority Act	The Port Authority Act at §59(1) authorizes the regulation of traffic and navigation of ships within the limits and approaches to a port.
Conservation-Related		
Coastal Lagoons	NCEPA	
Coral Reefs	DCEPA, Fisheries Act (Regulations)	Management plans may provide for protection of marine flora and fauna. DCEPA §13(3). §40(2)(p) of the Fisheries Act

		authorizes regulation of taking of coral and shells. Fisheries Act §40(2)(p).
		Regulations prohibit collection and possession of coral, sponge, and sea stars without the written permission of the Chief Fisheries Officer. Fisheries Act (Regulations, 1995) §21
Mangroves	DCPA, Fisheries Act	<p>Management plans may provide for the protection of marine flora and fauna. DCPA §13(3).</p> <p>Marine reserves are areas where the Minister feels that special measures are necessary to protect the flora and fauna of the designated areas; and to preserve breeding grounds and habitat. Fisheries Act §23. Without prior authorization, it is illegal to . . . destroy flora. Fisheries Act §23 (2),(3).</p>
Sandy Bottoms	Unknown.	Unknown.
Dense Sea Grass	DCPA, Fisheries Act	<p>Management for special use areas plans may provide for protection of marine flora and fauna. DCPA §13(3)</p> <p>Marine reserves are areas where the Minister feels that special measures are necessary to protect the flora and fauna of the designated areas; and to preserve breeding grounds and habitat. Fisheries Act §23. Without prior authorization, it is illegal to . . . destroy flora. Fisheries Act §23 (2),(3).</p>
Sparse Seagrass	DCPA, Fisheries Act	<p>Management for special use areas plans may provide for protection of marine flora and fauna. DCPA §13(3)</p> <p>Marine reserves are areas where the Minister feels that special measures are necessary to</p>

		protect the flora and fauna of the designated areas; and to preserve breeding grounds and habitat. Fisheries Act §23. Without prior authorization, it is illegal to . . . destroy flora. Fisheries Act §23 (2),(3).
Turtle Nesting, Nursery Areas	Fisheries Act (Regulations)	Taking of turtle eggs and undersized turtles. It also prohibits interference with nests or nesting turtles. Fisheries Act (Regulations, 1995) §19.
