

# **MARITIME SECURITY SECTOR REFORM**

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## PREFACE

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The Maritime Security Sector Reform (MSSR) Guide is an analytical tool designed to map and assess the maritime sector; to assess existing maritime security sector capabilities and gaps; and/or to enable coordination and collaboration to improve maritime safety and security. It can be used to support a full-scale maritime sector assessment; to obtain a snapshot of one or more aspects of a country's maritime sector; or to facilitate discussion among national actors with maritime responsibilities. The Guide is designed to be used in conjunction with other tools, particularly when a more in-depth treatment of a function or capability may be warranted.

The MSSR Guide may be used by a wide range of maritime stakeholders. It is based on standards and best practices from a variety of sources and does not embody the practice or standards of any particular country or group of countries. United States Government agencies, however, may wish to consult with the Departments of State, Defense, Homeland Security, Transportation, or Justice, and/or the U.S. Agency for International Development (USAID) when considering programs based on an MSSR assessment.

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## Section I

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# 1.1 OVERVIEW

An expansion in the level of international trade over the last few decades has highlighted the importance of the maritime sector to the global economy. Estimates suggest that more than 90 percent of global trade is transported by sea.<sup>1</sup> Maritime activity extends beyond the international transport of goods to national revenue generating activities that include fishing and aquaculture, recreation and tourism, as well as extraction of non-renewable marine-based resources, and can be a critical source of income and food for populations at the community level.

The maritime realm—defined for these purposes as encompassing oceans, seas, lakes, rivers, coastlines and harbors—is vulnerable to a wide array of threats, including illegal, unreported, and unregulated fishing; environmental degradation; smuggling; trafficking in persons; narcotics trafficking; piracy; proliferation of weapons of mass destruction; and aggressive actions, including terrorism. These maritime threats all have significant land-based dimensions, whether related to the origin of the threat, the locus of its effects, or the land-based capabilities required for preventive or enforcement interventions. As a result, land-based actors and capabilities are as important to maritime security as the specialized maritime capabilities usually associated with maritime activities and institutions.

The characteristics of a nation’s maritime sector can be seen as a microcosm of that nation. If the national characteristics include a lack of political and/or public consensus over governance, insufficient political competition, capability deficits, or deficient public administration, the maritime sector will likely share these characteristics. By the same token, improvements to maritime governance, law enforcement, and safety may have a positive impact on citizens far beyond the maritime sector, through enhanced livelihoods and food security, improved access to goods and services, or freedom from fear.

Recent work on security sector reform (SSR) has identified the interdependent nature of the security sector<sup>2</sup> and the critical need for coordination and cooperation among security-related and civil institutions.<sup>3</sup> The Maritime Security Sector Reform (MSSR) Guide is designed to apply these concepts to the maritime domain by providing a systemic overview of maritime security that includes regulatory, operational, institutional, policy, and human resource components.

The MSSR Guide is not a strategy; rather, it is a practical tool that can be used in a variety of ways: to map and analyze the maritime sector as a whole; to assess existing maritime security sector capabilities and gaps; and/or to further coordination and collaboration to improve maritime safety and security. Further detail on the uses of the MSSR Guide can be found in Section 1.3.

## STRUCTURE OF THE MARITIME SECURITY SECTOR REFORM GUIDE

The MSSR Guide (Section II) divides and organizes elements of maritime security into three levels: *Functions*, *Sub-functions*, and *Capabilities*. *Functions* are used to describe key areas of activity required for a stable, safe, and prosperous maritime sector. The Guide outlines six *Functions*:

- Maritime Governance
- Maritime Civil and Criminal Authority

<sup>1</sup> The International Maritime Organization Maritime Knowledge Centre: International Shipping and World Trade, Facts and Figures, October 2009.

<sup>2</sup> Key actors and institutions engaged in security sector activities may include armed and public security forces (the military, police, and intelligence agencies), civil management and oversight bodies (the justice system, legislatures, local governments), the private sector and civil society (media, academia).

<sup>3</sup> Additional information on SSR can be found in “The OECD DAC Handbook on Security System Reform” (<http://www.oecd.org/dataoecd/43/25/38406485.pdf>).

- Maritime Defense
- Maritime Safety
- Maritime Response and Recovery
- Maritime Economy

*Functions* group together related activities but do not correspond to particular actors or institutions, as these roles and responsibilities vary across national contexts.

Each *Function* is further delineated into one or more *Sub-functions*, as indicated in the chart below. *Sub-functions* are not mutually exclusive. Aspects of certain *Sub-functions*—particularly those pertaining to maritime governance—are integral to multiple functional areas.

FUNCTIONS	Maritime Governance	Maritime Civil and Criminal Authority	Maritime Defense	Maritime Safety	Maritime Response and Recovery	Maritime Economy
SUB - FUNCTIONS	Maritime Mission	Enforcement of Civil and Criminal Laws	Maritime Defense Administration	Maritime Safety Administration	Emergency Response Administration	Economic Activity Regulation and Management
	Maritime Agency Organization	Integrated Border Management	Maritime Defense Forces	Flag State Control	Incident Management	Commercial Ports
	Maritime Law and Policy	Judicial Sector Support	Maritime Situational Awareness/ Maritime Domain Awareness	Port State Control	Search and Rescue	Transport
	Diplomatic and Foreign Affairs Support	Port Security		Fishing and Small Vessel Safety and Operations Management	Fire	Market Conditions
	Maritime Programs	Vessel Security			Environmental	
	Maritime Professionals	Supply Chain Security		Maritime Facility Safety Management	Maritime Defense Assistance to Civil Authorities	
	Maritime Agency Outreach and Stakeholder Coordination	Maritime Environmental Enforcement		Mariner Licensing Administration	Investigation and After-action Analysis	
	Accountability and Oversight			Aids to Navigation Infrastructure, Equipment and Maintenance		

Finally, a series of core *Capabilities* is identified for each *Sub-function*. These are the capabilities necessary to set and accomplish national maritime goals and to fulfill national and international legal obligations.

The identification of core capabilities provides an analytical basis for determining the adequacy of existing maritime-related capabilities through the use of two indicators: *Approach Measurement Indicators* and *Delivery Measurement Indicators*. *Approach* indicators assess the extent to which plans, processes, programs, or other efforts have been identified to develop or support a particular capability. *Delivery* indicators assess whether and to what extent that approach is being implemented to achieve desired objectives.

The purpose of distinguishing between a capability’s *Approach* and *Delivery* is to enable greater diagnostic insight. For example, a well-conceived maritime security strategy (*Approach*) will be ineffective if not

implemented. Conversely, significant training efforts (*Delivery*) may have minimal sustainable impact if adequate training materials have not been developed to guide training in a consistent manner.<sup>4</sup>

The MSSR Guide is designed to be used in a variety of ways, with each user selecting the aspects of the Guide that will serve particular needs, goals, or programs. The Guide provides two methodologies (one qualitative, the other quantitative) to record levels of capability, when a determination of such levels is deemed useful. In certain cases, numerical scores may be beneficial. When progress in a certain area is to be measured over time, numerical scores often provide more specificity, more granularity, and a better overall indication of the iterative nature of progress. In both cases, textual background should be included to explain the selection of one level over another. A summary is provided in the chart below.

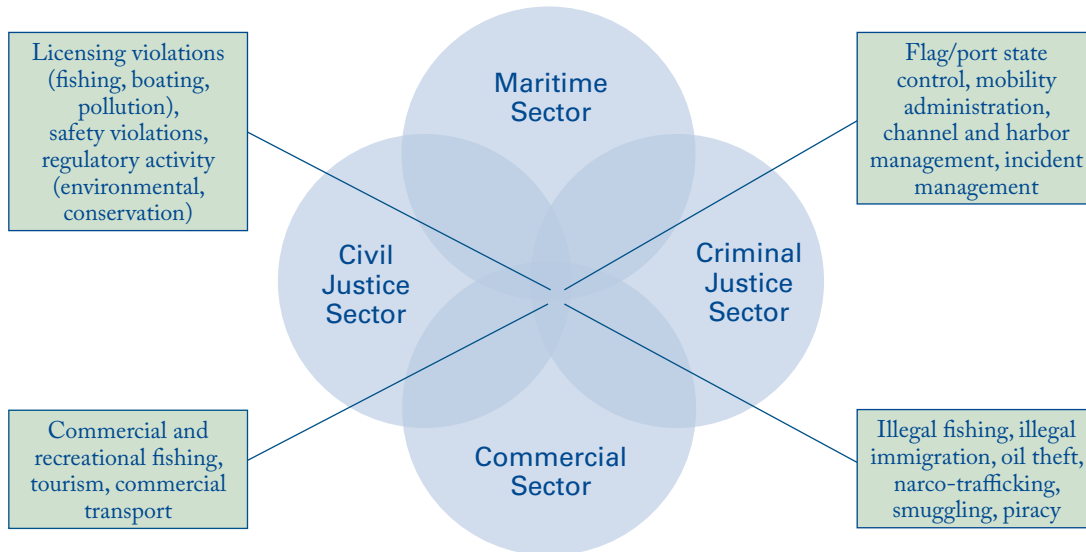
Qualitative Indicator Range	Quantitative Indicator Range	Approach Indicator Definition	Delivery Indicator Definition	Comments and Remarks
NOMINAL	0 – 2	Some activity may exist evidencing the capability measured, but such activities are not part of formal plans, policies, processes, or programs that would enable the capability to exist on a reliable and reproducible basis.	The capability is infrequently employed (0-30% of the time) and its contribution to positive outcomes is minimal.	Recognizes the existence of some effort or activity, even though it may not stem from formalized plans, policies, processes, or programs. Also recognizes scattered or disconnected efforts (often at the individual or local level).
MODEST	3 – 5	Organized, if basic, approaches to the capability exist, and efforts are in place to address weaknesses.	The capability is not consistently employed (30-60% of the time) and outcomes are erratic or unpredictable.	Recognizes that there may not be consistency of effort but that various levels of organization exist.
MODERATE	6 – 8	Organized activities supporting the capability are professional, formalized, and supported by adequate budget levels.	The capability is mostly employed (60-90% of the time) and produces adequate outcomes.	Shows sophistication and organization towards achieving a stated goal or objective. Even if capabilities are not consistently used or do not exist across the entirety of the maritime domain, outcomes are adequate.
SIGNIFICANT	9 – 10	Activities are formalized, planned, funded, assessed and adjusted on a continual basis, evidencing a significant level of capability in this area.	The capability is consistently employed (90% of the time or higher) and produces effective and efficient outcomes. Capability reviews ensure the capability is upgraded if/as circumstances require.	More robust capacity exists and is being sustained. Efforts are made continually to improve capacities across the maritime domain.

<sup>4</sup> The distinction between Approach and Delivery indicators derives from the 2009-2010 Criteria for Performance Excellence, the Baldrige National Quality Program at the National Institute of Standards and Technology. Available at [http://www.baldrige.nist.gov/PDF\\_files/2009\\_2010\\_Business\\_Nonprofit\\_Criteria.pdf](http://www.baldrige.nist.gov/PDF_files/2009_2010_Business_Nonprofit_Criteria.pdf)

# 1.2 MARITIME SECURITY SECTOR REFORM: FUNCTIONAL AREAS

The maritime sector is fundamental, directly or indirectly, to the national defense, law enforcement, social, and economic goals and objectives of nearly every country. It is a crucial source of livelihood for many in developing nations, a platform for trade (including for landlocked countries), and a theater for potential conflict or crime. The Functions of the MSSR Guide aggregate and organize the myriad actors and jurisdictions that co-exist in the maritime sector, illustrated below. The Functions enable identification and assessment of the variety of maritime security stakeholders and highlight the role the private sector and civil society play in the maritime arena.

Given the transnational aspect of oceans, as well as many rivers, coastlines, and estuaries, governments do not operate, regulate, and police the maritime domain alone. For example, most ports are public-private partnerships and in some jurisdictions, coastal lands may be privately owned. Shipping and transport companies play major roles in maritime commerce, and maritime law enforcement can be a cooperative endeavor between national, regional, sub-national, and private agencies and actors.



In an environment as complex and diverse as the maritime realm it is sometimes tempting for institutions and governments to view a particular problem as outside their jurisdiction. Often, many institutions with an important stake in maritime matters (such as the civil or criminal justice sector) do not consider themselves maritime institutions. The too-frequent and unfortunate result is a lack of coherence in a nation’s approach to its maritime sector and related reform efforts. It is critical to recognize that the Functions are complementary and inter-dependent; gaps in one area may have a significant impact on outcomes in another.

Each Function is described briefly below. They illustrate that in operation or in reform, work in the maritime arena extends across government agencies; between levels of government; and outside national governments, including regional and international neighbors.

## MARITIME GOVERNANCE

Effective governance attracts capital, encourages growth, and helps states improve the conditions that contribute to their citizens’ quality of life. The Maritime Governance Function encompasses the broad

range of public administrative activities that maritime agencies must perform to accomplish their missions. It also highlights the importance of accountability and oversight at a variety of levels of operation. It notes some of the supportive and connective roles of “non-maritime” actors whose jurisdictions overlap with the maritime sector.

Improving maritime sector governance requires more than enacting regulations or legislation; it involves a wide range of activities that enhance the effectiveness, efficiency, and transparency of specific maritime, commercial, regulatory, and/or criminal justice institutions. These institutions are not always national or unitary. Thus, the Maritime Governance Function is designed to be applicable at every level of government, from local to national, with appropriate adjustments in perspective. In addition, some governance matters, such as accountability and oversight or the development and management of maritime professionals, apply widely across and in support of the other functions.

Maritime Governance illustrates in broad terms the core responsibilities of national public institutions that affect maritime security, including the need to enforce international law and comply with United Nations Security Council resolutions. It is crucial to recognize that there is no one-size-fits-all approach to the many aspects of public administration. Without good maritime governance capacity and activity, achieving other maritime functions may be impossible. Thus, the Maritime Governance Function should be incorporated into all uses of the MSSR Guide, regardless of the objective.

The MSSR Guide identifies eight Maritime Governance Sub-functions:

**Maritime mission:** The tasks required to ensure an appropriate balance among safety and security measures, facilitation of lawful trade, freedom of navigation, protection of the marine environment, personal rights, and the livelihoods of stakeholders and the public.

**Maritime agency organization:** The tasks required to delineate agency roles and responsibilities (including sub-national agencies) within the national maritime sector and ensure interagency and intergovernmental coordination in support of national strategy.

**Maritime law and policy:** The tasks required to develop, assess, refine, and promulgate maritime law, policy, and regulations.

**Diplomatic and foreign affairs support:** The tasks required to coordinate between civil and criminal law enforcement and foreign affairs entities to ensure effective attainment of national maritime goals.

**Maritime programs:** The tasks required to develop and enforce regulations and standards in support of national strategies and goals.

**Maritime professionals:** The tasks required to recruit, educate, train, and retain maritime personnel across the full spectrum of maritime safety and security. Includes both public and private sector and related support personnel.

**Maritime agency outreach and stakeholder coordination:** The tasks required to ensure appropriate input and coordination for policy decisions from a wide range of maritime security stakeholders and dissemination of information to those affected by maritime security issues.

**Accountability and oversight:** The tasks required to ensure policy development and implementation is conducted in a transparent, accountable, and acceptable manner.

## MARITIME CIVIL AND CRIMINAL AUTHORITY

Maritime Civil and Criminal Authority includes the broad array of civil and criminal justice-related activities required to support rule of law in the maritime domain. This Function in particular highlights that maritime security does not simply result from naval or coast guard capabilities, but adequate capacity across all elements of civil and criminal authority. From nonproliferation efforts that target weapons of



mass destruction and other dual-use and munitions goods, to licensing, inspection, and enforcement efforts, maritime criminal and civil authorities exercise a broad range of authorities reflective of the nature of the area of their jurisdiction.

Separating the various responsibilities of maritime civil and criminal authorities is not an easy task. Though maritime authorities may act as police on and near the water, at other times they may perform functions more closely related to customs and border control. Maritime authorities have readily identifiable responsibilities, such as the prevention, detection and interdiction of maritime crime, or terrorist attacks on or via a state's coastal waters or to its maritime infrastructure. But they also can enforce national and local laws (and sometimes promulgate regulations) that protect against other threats, such as threats to the maritime environment—the viability and sustainability of which can have profound effects on national economies, quality of life, and public health. Sound management of these resources includes the full range of regulatory activities—prevention, preservation, protection, response, mitigation, and restoration—whether related to pollution, illegal removal of environmental resources, damage, misuse, or overuse. Effective civil and criminal authorities can ensure natural resource sustainability for a country's future generations.

Institutions enforcing maritime civil and criminal authority must be able to cooperate effectively with other government structures. For example, after the exercise of enforcement, citation, or arrest authorities, enforcement actors must transfer suspected offenders to appropriate judicial structures. Strong linkages to prosecutorial, judicial, and corrections authorities are thus important, because the maritime authority is likely the key investigative authority as well as the arresting authority. Formalized interagency cooperation is also necessary to manage a strategic trade control system, and identify and stop illegal transshipment activities.

The Guide identifies seven Maritime Civil and Criminal Authority Sub-functions:

**Enforcement of civil and criminal laws:** The tasks required to ensure effective implementation and enforcement of all applicable treaties, laws, and regulations in a transparent and ethical manner.

**Integrated border management:** The tasks required to provide proper border oversight to ensure legitimate trade duties and tariffs are collected and illegal movement of goods and people is prevented.

**Judicial sector support:** The tasks required to adjudicate maritime-related cases within an open legal system with an understanding of the unique aspects of the maritime operating environment.

**Port security:** The tasks required to ensure maritime ports and the marine transportation system are protected, and that the ability to use or exploit them as a means of attack on domestic territory, population, vessels, and infrastructure is denied.

**Vessel security:** The tasks required to ensure vessels are protected from access or exposure to unauthorized cargo, people, tracking, or monitoring, and from being used or exploited as a means of attack.

**Supply chain security:** The tasks required to ensure components or elements that support or contribute to the maritime supply chain, including but not limited to cargo, containers, fuel, equipment, parts, shore side facilities, manufacturers, seafarers, longshoremen, stevedores, and laborers are protected from unauthorized access, use, or exploitation as a means of attack.

**Maritime environmental enforcement:** The tasks required to ensure effective enforcement of all applicable laws to protect the marine environment, consistent with international law.

## MARITIME DEFENSE

The maritime realm is often a national border as well as a national resource. As such, it needs to be defended from threats originating abroad or at home. The Maritime Defense Function groups together

capabilities for the effective detection, deterrence, and interdiction of aggressive acts against a state's sovereignty, assets, and infrastructure within or adjacent to its coastal waters and to effective participation in international maritime partnerships.

When a naval or a coast guard maritime force performs maritime defense functions, these forces utilize capabilities, personnel, and equipment to achieve a mission distinct from the law enforcement or revenue functions associated with the Civil and Criminal Authority Function. With proper protections, information sharing between defense and transport/law enforcement can assist those responsible for such functions. This ensures efficient use of national resources across multiple necessary and overlapping missions, whether these functions and missions are spread across multiple organizations or are performed by the same organization.

Organizations dedicated to maritime defense, whether navies or coast guards, are often the agencies called upon by government to mobilize in response to natural disasters, humanitarian crises, or other national emergencies. This capability is crucial and immediate in the maritime sphere, where many types of natural disasters - hurricanes, typhoons, storms, tsunamis - affect coastal residents and property disproportionately.

However, by its very size and power, a maritime defense organization may also bring challenges to the maritime arena. It may influence or compete with other maritime security institutions for resources, jurisdiction, and personnel.

National security institutions are one of the most immediate and powerful tools to effectuate political aims. In some developing countries the security sector may have been inappropriately used and may well be feared by citizens. Thus, a truly sustainable program must advance transparency, civilian oversight and control, and human rights protections.

The guide identifies three Maritime Defense Sub-functions:

**Maritime defense administration:** The tasks required to clarify roles and responsibilities within and among national maritime agencies with defense roles, at the national and sub-national level, and to coordinate in support of national strategy.

**Maritime defense forces:** The tasks required to ensure naval assets and agencies with defense roles are able to protect the national maritime domain from threats or losses from illegal acts or aggression that could have security, safety, economic, or environmental impacts.

**Maritime situational awareness (MSA)/maritime domain awareness (MDA):** The tasks required to effectively understand anything associated with the global and regional maritime domain that could have security, safety, economic, or environmental impacts.

## MARITIME SAFETY

The maritime realm can be a dangerous place. In addition to natural hazards posed by weather, icebergs, and reefs, additional potential dangers arise from unregulated or illegal activity and unsafe practices. Thus, it is crucial that one or more authorities hold clear responsibility for ensuring maritime safety. The Maritime Safety Function represents those actions a government can and should take to prevent or mitigate the possibility of dangerous maritime incidents. Because not every incident can be prevented, investigative and regulatory powers are essential for authorities to review incidents, determine responsibility, and ascertain what corrective actions can prevent future mishaps. Authority to require compensation in the case of culpable actions may also be needed.

Effective maritime safety relies on skilled personnel capably complying with and enforcing applicable promulgated standards. Navigational routes within channels, harbors, deltas, rivers, lakes, estuaries, and

canals should all be clear of obstructions and other hazards, and charted, marked, and posted to protect maritime commerce, tourism, and recreation. Administrations need to compile and maintain records of licensed mariners and port workers with authorization to access restricted areas and issue them secure credentials that provide reliable confirmation of the holder's identity. The institutions exercising this function should link with those overseeing a state's surface and air transportation network to ensure that goods and people travel efficiently and safely. If possible, they should also link with other administrations in the region to develop common protocols to ease the transition of users from one jurisdiction to the next.

A key component of maritime safety is exercise of administrative examination, licensing, inspection, and administrative judicial powers. In addition, maritime safety authorities are responsible for risk evaluation and mitigation related to foreign vessels operating in coastal waters. Thus, the Maritime Safety Function encompasses registration, licensing, and monitoring capabilities for vessels (including commercial fishing craft and recreational vessels), worker facilities, and cargo. Consistent exercise of inspection authority is critical to the maintenance of appropriate levels of safety.

The Maritime Safety Sub-functions include:

**Maritime safety administration:** The tasks required to manage the qualifications and suitability of maritime professionals and other users of the maritime domain.

**Flag state control:** The tasks required to manage national flag vessels. This includes adequate working conditions and safety and environmental protection requirements, regardless of vessel size or location.

**Port state control:** The tasks required to inspect foreign ships in national ports to verify that the conditions of the ship and its equipment comply with the requirements of international regulations and that the ship is manned and operated in compliance with these rules.

**Fishing and small vessel safety and operations management:** The tasks required to manage licensing, safety, and fish sustainability as related to fishing and small vessels.

**Maritime facility safety management:** The tasks required to manage onshore maritime terminals and offshore extraction-related terminals and industrial sites.

**Mariner licensing administration:** The tasks required to ensure that commercial vessels are operated by trained inland waterway personnel and that shipboard personnel have appropriate credentials.

**Aids to navigation infrastructure, equipment and maintenance:** The tasks required to provide and maintain lights, hazard warnings, channel markings, communications, and vessel traffic controls.

**Channel and harbor management:** The tasks required to promote efficient trade and transport, public health, and sound environmental protection, such as navigational safety, dredging and wreck removal, and bridge management over navigable waterways.

**Maritime safety interagency coordination:** The tasks required to manage multiple agency roles and functions.

## MARITIME RESPONSE AND RECOVERY

Maritime Response and Recovery encompasses the capabilities required to respond to, mitigate, and later investigate hazards and emergency incidents. The maritime realm is simultaneously an ecosystem operating in delicate balance and an area for private, commercial, and government activities. Maritime response and recovery entities protect economic interests, natural resources, and critical national infrastructure from maritime-related incidents and hazards. Whether in relation to a ship in distress, oil spill, piracy, or inclement weather, these responses often require special equipment, training, and powers; some incidents will necessitate mobilizing diverse and significant national and/or transnational resources. One of the key aspects of any response will be speed, as the ability to restore continuity of operations rapidly provides confidence in government and reduces economic risks.

Incident management is not limited to the actions taken during a crisis. It also includes prevention, investigation, and cleanup responsibilities. These might include leading after-action incident analyses; the adjustment of regulations, based on lessons learned from the incident; and restoration of commercial, transport, and other maritime activities.

The seven Sub-functions of Maritime Response and Recovery are:

**Emergency response administration:** The tasks required to support, coordinate, and improve planning, preparation, response, and recovery to mitigate maritime all-hazards.

**Incident management:** The tasks required to prepare for, respond to, and manage all types of incidents, including search-and-rescue, migration, fire, and environmental incidents occurring in on- or off- shore facilities, harbors, channels, and vessels; or offshore.

**Search and rescue:** The tasks required to manage operational plans and special equipment to search for and rescue persons in distress.

**Fire:** The tasks required to manage operational plans and special equipment to respond to maritime-related fires on vessels or at facilities.

**Environmental:** The tasks required to manage contingency plans and special equipment to combat spills from vessels and facilities (onshore and offshore) and air discharges in the marine domain and to protect affected individuals from pollution.

**Maritime defense assistance to civil authorities:** The tasks required to authorize interagency activities by agencies with defense roles through appropriate law and policy and to organize interagency cooperation at the national and sub-national level in response to emergency incidents.

**Investigation and after-action analysis:** The tasks required to conduct an official inquiry into the causes of an incident, to work with responsible parties to undertake mitigation, and to identify measures to prevent repetition of similar incidents.

## MARITIME ECONOMY

Maintaining a vibrant national economy requires attention to the maritime economy, as even landlocked countries depend on the maritime access of their neighbors for their own economies. Thus, a state's ability to guarantee safe and secure maritime conditions is important to the health of its overall economy as well as that of the region.

Nevertheless, it would be difficult to impossible to identify all the elements of a national economy that have maritime characteristics or are influenced by developments in the maritime sector. Accordingly, the Maritime Economy Function seeks to identify key, central areas of maritime economic activity that utilize or depend on the maritime domain. These areas of activity include a multitude of stakeholders and represent a range of responsibilities that are important to any conception of maritime security. In addition, the Maritime Economy Function includes reference to economic conditions that may have a significant impact on the efficacy of the maritime economy.

The Guide identifies four Maritime Economy Sub-functions:

**Economic activity regulation and management:** The tasks required to ensure a comprehensive maritime economic and regulatory environment contributes to the sustainable commercial development of a nation, through the promotion of safety of passage, compliance with international obligations, and improvement in levels of competence, resulting in increased competitiveness of goods and services.

**Commercial ports:** The tasks required to ensure a competitive position in the global economic marketplace through the movement of imported and exported goods, both cost effectively and efficiently. Ports and associated waterways are maintained in navigable condition, are accessible and secure, have properly maintained facilities, and are supported by necessary infrastructure.

**Transport:** The tasks required to promote the development of efficient, integrated maritime supply chains, with a combination of personnel and equipment able to support broad national maritime goals, development programs, and initiatives.

**Market conditions:** The tasks required to encourage markets to function efficiently and to prevent (including through the establishment of incentive structures and enforcement mechanisms) their exploitation.

# 1.3 APPLICATIONS OF THE MARITIME SECURITY SECTOR REFORM GUIDE

The MSSR Guide in Section II has been designed to support three primary uses: *Maritime Sector Mapping, Assessments, and Coordination and Collaboration*. Some may want to use the Guide for a full-scope maritime sector assessment, perhaps as a prelude to developing an assistance strategy or in order to coordinate projects. Others may want to use the Guide regularly to obtain a snapshot of one or more aspects of a country's maritime sector, or to identify and facilitate discussion among national actors with maritime responsibilities.

Although the MSSR Guide outlines maritime functions and capabilities from a national perspective, it can also be used to analyze those same functions and capabilities at sub-national or local levels of government, or across multiple countries. It is intended to be flexible and for that purpose is organized at a level of generality to enable its use for multiple goals in a variety of circumstances and contexts. The Guide is designed to be used in conjunction with other tools, particularly when more in depth treatment of a function or capability may be warranted. Below is a summary chart of possible actors and uses of the Guide.

Typology	Actor	Responsibility	Possible Use
NATIONAL OR SUB-NATIONAL GOVERNMENTS	National-level leaders and senior policy makers	Establish national and strategic policy across all maritime functions	To provide an analytical basis for the development of national maritime strategies and national maritime goal setting, including reform efforts
	Individual agencies; cross-agency bodies	Perform designated maritime roles and responsibilities; coordinate maritime agencies	To facilitate interagency coordination and collaboration; to identify or clarify respective roles and missions; to develop joint strategies and monitor performance
	National or sub-national maritime officials and organizations	Establish localized polices and manage sub-national organizations and personnel	To identify requirements, set organizational goals, and assess performance
REGIONAL ORGANIZATIONS	Regional bodies and staff, including national representatives to regional organizations	Coordinate regional actors and others in support of national and regional strategies and programs	To support regional strategy development and implementation; to identify areas and capabilities where cooperative regional programs may be preferable to stand-alone national capabilities; to coordinate cross-boundary issues; to coordinate needs assessments and donor support
GLOBAL MULTILATERAL ORGANIZATIONS	Multilateral bodies and staff, including national representatives to multilateral organizations	Coordinate global actors in support of common objectives	To provide an analytical basis for needs assessment and donor coordination; to establish sectoral coordination and collaboration mechanisms
BILATERAL PARTNERS	Mission-based country representatives located in host nations (political, military, economic and development officers and technical staff and advisors)	Engage with partner country counterparts, including security forces and law enforcement institutions; coordinate, assess, plan, develop, and review technical and assistance programs	To support development and management of in-country programs; to collaborate with partner country counterparts across the maritime sector; to coordinate with other national representatives
	Diplomatic, defense and development staff and advisors based in national capitals	Coordinate, assess, plan, develop, and review technical and assistance programs and support the development of strategic guidance and priority setting	To provide an analytical and integrative basis for strategy and programs; to identify gaps; to support missions in the field; to manage assistance programs and coordination for effective outcomes



## MARITIME SECTOR MAPPING

The MSSR Guide can be used to create a diagram of the relevant constituencies, interests, private groups, government institutions, and individuals that together define the community of maritime stakeholders. Mapping both the intended and actual regulatory and enforcement agencies with a role in the maritime domain is an excellent initial step of background research. Used in this manner, the Guide provides a common reference for identification of a wide variety of maritime security stakeholders who may not previously have had opportunities to consider their work in a broader context.

The Guide can help facilitators avoid lengthy efforts to identify common terms or define particular capabilities by bridging different organizational cultures. It also provides a frame of reference for organizing the input, observations, and recommendations collected in any mapping process. The Functions, Sub-functions, and Capabilities of the Guide also can be used without reference to the indicators as a means of initiating a dialogue on maritime issues with a diverse range of stakeholders. Illustrative venues for such a dialogue include discussion among public officials within a national government, a broad exchange of ideas among the variety of stakeholders in the maritime realm, or a targeted discourse with select persons related to an identified maritime challenge.

## ASSESSMENTS

The MSSR Guide may also be used to support national self-assessments or collaborative, multi-national assessments to develop a broad understanding of a national maritime sector and how its interrelated components interact—particularly elements of the sector that may have been overlooked in traditional assessments of maritime security. Insights from this use can confirm or challenge assumptions about appropriate actions for strategy, policy, and program development and inform reform initiatives.

When used with the Approach and Delivery indicator model outlined on page 3, the Guide can serve as a measurement tool to assess the range of maritime sector capabilities. If used periodically and in conjunction with third-party data sets kept by multilateral organizations, non-governmental organizations, and academia, such assessments can generate a valuable data set for comparative analysis to determine policy and program effectiveness.

**Assembling an Assessment Team.** The MSSR Guide assumes a certain level of knowledge of the maritime sector and its relevant institutions and activities. As maritime security has a broad reach, any individual assessor will not likely have expertise in all subject matter areas being evaluated. A team with a variety of experience and expertise is ideal for undertaking an assessment.

The assessment team could include experts in international maritime and environmental law, maritime law enforcement, justice, public administration, revenue collection, ports, trade, multi-modal transportation, critical incident response, and maritime defense. The team should also include or consult with experts on specific issues of concern. For example, if trafficking in persons or goods is a priority, border control and gender specialists might be useful team members. It is highly recommended that gender specialists be consulted, if not included in assessment teams, to improve understanding of relevant gender issues across the maritime sector. Such consultations should also occur with local populations in maritime areas, including marginalized groups.

The value of a multi-disciplinary assessment team cannot be overstated; indeed, the MSSR Guide was designed to facilitate multi-disciplinary approaches. Partner-donor or multi-donor government teams may be useful. When appropriate, private sector, academic, or non-governmental organization participation may also enhance assessment teams. Discussions among a core team should assist in the identification of the full slate of team members with the knowledge and expertise to best explore the relevant range of capabilities. Interagency and/or private workshops can be useful for ensuring the team understands the full range of issues relevant to its work.

**Preparing for an Assessment.** An MSSR assessment should compile information obtained from research, observation, and interviews. This information should include national participation in relevant international treaties and regional agreements. Before embarking on an assessment, members of the assessment team should conduct basic research to become familiar with laws, regulations, policy documents, strategies and plans that provide a profile of the uses, security, regulation, and maintenance of maritime resources, including infrastructure. If applicable, a pre-departure dialogue between the assessment team and on-the-ground diplomatic representatives related to current political and economic realities, pressures, and events is essential. During the initial planning of an assessment, the team should determine the form and distribution of any reports or other assessment documents.

**General Approach.** The recommended approach to conducting an assessment using the MSSR Guide is one of open discussion with a broad representation of key individuals. Engaging in dialogue with former and current stakeholders regarding existing and planned maritime programs and their implementation can reveal the strengths of such programs as well as current and anticipated challenges, particularly in light of threat assessments. The assessment team should identify and meet with representatives of national and sub-national agencies with maritime responsibilities, key private stakeholders in the maritime sector (such as shipping companies, fishing associations, individual or sole proprietors) and other civil society organizations (journalists, think tank experts, university lecturers, nonprofit advocates). Follow-up interviews may be useful to answer questions that arise over the course of the assessment or upon review of documents and notes.

Whether nationally led or led by partners, assessments may benefit from a series of structured and/or facilitated discussions. Such discussions may include representatives from a cross-section of maritime security experts, officials regulating maritime use (such as fishing, tourism, non-renewable resources), police, border officials, diplomatic representatives, economists, lawyers, judges, leaders of non-governmental organizations, journalists, and industry representatives—from individual fishermen to exporters to global resource extraction companies. Interviews with stakeholders can often yield useful recommendations of other relevant parties to interview.

**Organizing Information.** Team members will gather a large amount of information, and a continuing analysis of facts and perceptions that emerge will aid in identifying themes and lines of inquiry that can be verified or challenged throughout the assessment. The assessment team should remain objective, nonjudgmental, organized, and curious. Preliminary observations and conclusions can mask different underlying problems and causes, and the assessment team must guard against seeking to validate a previous or early hypothesis. Other assessment tools, such as those relating to rule of law, administrative agency capacity, corruption, or natural resource management may help elicit further detail as needed.

**Other Considerations.** The MSSR Guide is based on standards and best practices from a variety of sources and does not embody the practice or standards of any particular country or group of countries except to recognize internationally accepted standards where such exist, e.g., the International Convention for the Safety of Life At Sea. National cultures, practices, laws, institutions, and processes diverge significantly around the globe. These differences in structures, roles, and missions of national maritime agencies and actors should not be an obstacle to the use of the Guide as it was designed to recognize and accommodate such differences while maintaining a focus on desired outcomes.

## COORDINATION AND COLLABORATION

The MSSR Guide can also be used to enhance bilateral and multilateral coordination and collaboration among partners. Maritime security is a system; as a result, approaches to maritime security will likely need to be comprehensive to be effective, yet partners may not always dedicate sufficient time and effort to coordinate efforts among themselves or work collaboratively with national counterparts to support the full spectrum of sustainable capabilities required. For example, unit-level training enhancements



for maritime military or law enforcement forces may need to be supported with public administration enhancements, such as those related to human capital management and budget planning. A systematic, organized approach will be more likely to achieve and maintain sustainable progress than well-intentioned but sporadic efforts.

The mapping and assessment uses described above provide a common starting point and terminology to craft collaborative assistance programs. The Functions, Sub-functions, and Capabilities set forth in the Guide offer a systematic means for multiple stakeholders within a state or multiple states to delineate and better understand their respective efforts in support of one or more maritime objectives. The structure of the MSSR Guide may also be useful for representing in a common document various bilateral and/or multilateral assistance efforts. Countries seeking to coordinate partner assistance may also find the structure of the Guide useful for organizing requests from the international community, as in the notional example below.

Function	Sub-Function	Capability	Support Activities Of Country #1	Support Activities Of Country #2	Support Activities Of Country #3
Maritime Safety	Aids to navigation infrastructure, equipment, and maintenance	Ability to ensure safe navigation through suitable hazard warnings and channel markings	Construction of lighthouse at point x	Provision of radio communication systems	Maintenance support

## CONCLUSION

Section I and Section II of this document may be revised on a periodic basis to implement recommendations for improvement and to enhance the utility of the tool to the maritime community. Readers and users of the MSSR Guide are encouraged to provide comments on the document.

# 1.4 ACRONYMS AND DEFINITIONS

<b>AToN</b>	<b>Aid to navigation:</b> Any device external to a vessel or aircraft intended to assist a navigator to determine position or safe course, or to warn of dangers or obstructions to navigation. By contrast, navigational equipment is the term used to describe navigational aids carried on a vessel.
<b>COP</b>	<b>Common operational picture:</b> The consolidated operational display of information facilitating collaborative planning to achieve enhanced situational awareness.
<b>IALA</b>	<b>International Association of Marine Aids to Navigation and Lighthouse Authorities:</b> The non-governmental international technical association established to harmonize aids to navigation worldwide and to ensure that the movements of vessels are safe, expeditious, cost effective, and harmless to the environment.
<b>IHO</b>	<b>International Hydrographic Organization:</b> The intergovernmental consultative and technical organization established to support safety of navigation and the protection of the marine environment.
<b>ILO</b>	<b>International Labor Organization:</b> The tripartite United Nations agency that brings together governments, employers, and workers of its member states in common action to promote decent work conditions throughout the world.
<b>IMO</b>	<b>International Maritime Organization:</b> The specialized United Nations agency whose primary purpose is to develop and maintain a comprehensive regulatory framework for shipping including safety, environmental concerns, legal matters, technical cooperation, maritime security, and the efficiency of shipping.
<b>ISM</b>	<b>International Safety Management Code:</b> The code incorporated into SOLAS with the purpose of providing an international standard for the safe management and operation of ships and for pollution prevention.
<b>ISPS</b>	<b>International Ship and Port Facility Security Code:</b> A comprehensive set of measures to enhance the security of ships and port facilities, implemented through SOLAS.
<b>MARPOL</b>	<b>International Convention for the Prevention of Pollution from Ships:</b> An international marine environmental convention designed to preserve the marine environment through the prevention of pollution from oil and other harmful substances.
<b>MSA/MDA</b>	<b>Maritime situational awareness/ maritime domain awareness:</b> The effective understanding of any factor associated with the global maritime environment that could impact the security, safety, economy, or environment of a country.
<b>MTS</b>	<b>Marine transportation system:</b> Those waterways, ports and intermodal landside connections that allow the various modes of transportation to move people and goods to, from, and on the water.
<b>SAFE</b>	<b>Framework of Standards to Secure and Facilitate Global Trade:</b> The World Customs Organization regime designed to enhance the security and facilitation of international trade.

<b>SOLAS</b>	<b>International Convention for the Safety of Life At Sea:</b> SOLAS is an international treaty concerning the safety of merchant ships and persons at sea. The main objective of SOLAS is to specify minimum standards for the construction, equipment, and operation of ships, compatible with their safety.
<b>SOP</b>	<b>Standard operating procedure:</b> A procedure or set of procedures designed to perform a given operation, evolution, or reaction to a given event.
<b>SORM</b>	<b>Standard organization and regulations manual:</b> A publication detailing the regulations and guidance governing the conduct of all members of a maritime agency or military force.
<b>TTP</b>	<b>Tactics, techniques, and procedures:</b> The specific methods employed to implement discrete aspects of maritime security.
<b>VTS</b>	<b>Vessel traffic service:</b> Vessel traffic services are shore-side systems which range from the provision of simple information messages to ships, such as position of other traffic or meteorological hazard warnings, to extensive management of traffic within a port or waterway.
<b>WCO</b>	<b>World Customs Organization:</b> The intergovernmental organization that develops standards and provides technical support for the harmonization of procedures governing the movement of people and commodities.

# Maritime Security Sector Reform Guide

## 1. Maritime Governance

The exercise of government authority and responsibilities to define policy objectives and to establish and implement laws, policies, regulations, plans, and governmental infrastructure to achieve national maritime security objectives. Includes negotiation of and compliance with international obligations, regulation of the use of the maritime realm by competing interests, maritime training and education, stakeholder and inter-governmental coordination and communication, agency capabilities, and accountability under laws and ethical standards.

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>a. Maritime mission</b> The tasks required to ensure an appropriate balance among safety and security measures, facilitation of lawful trade, freedom of navigation, protection of the marine environment, personal rights, and the livelihoods of stakeholders and the public.</p>	<p>1. Ability to develop comprehensive national maritime security goals, strategic plans and related implementation plans. Components:</p> <ul style="list-style-type: none"> <li>• Interagency coordination, consultation, decision making, and plans</li> <li>• Implementation progress reporting</li> <li>• Schedule for periodic revisions of strategic and implementation plans</li> <li>• Executive and legislative oversight of plans and processes</li> </ul>		
<p><b>b. Maritime agency organization</b> The tasks required to delineate agency roles and responsibilities (including sub-national agencies) within the national maritime sector and ensure interagency and intergovernmental coordination in support of national strategy.</p>	<p>1. Ability to organize maritime agencies to maximize effective implementation of roles and responsibilities, including for maritime strategy implementation. Components:</p> <ul style="list-style-type: none"> <li>• Includes senior levels of government</li> <li>• Ensures that responsibilities are consolidated and delegated appropriately</li> <li>• Avoids duplication of roles/responsibilities</li> <li>• Is appropriately financed</li> <li>• Promotes organized command and control functions</li> <li>• Contains robust enforcement capacity and authority</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>2. Ability to coordinate intra-governmental (interagency and national/sub-national) maritime processes. Components:</p> <ul style="list-style-type: none"> <li>• Communication on the development and enforcement of maritime security programs</li> <li>• Appropriate sharing of existing (including joint) resources</li> <li>• Appropriate delegations of authority</li> </ul>		
<p><b>c. Maritime law and policy</b> The tasks required to develop, assess, refine, and promulgate maritime law, policy, and regulations.</p>	<p>1. Ability to enter into international maritime agreements. Components:</p> <ul style="list-style-type: none"> <li>• Diplomatic interaction with international maritime security organizations—e.g., IMO, WCO, ILO, IHO, IALA</li> <li>• Experience interacting with private international maritime organizations (e.g., insurance cooperatives)</li> <li>• Diplomatic and other regional interaction on issues of common concern</li> <li>• Interagency consultation and collaboration</li> </ul> <p>2. Ability to develop and promulgate national maritime security law and regulations through appropriate policy and governance infrastructure. Components:</p> <ul style="list-style-type: none"> <li>• Appropriate legislation, decrees and/or administrative orders</li> <li>• Implementing regulations</li> <li>• National conformance with international codes, including ISM and ISPS</li> </ul> <p>3. Ability to produce national maritime administrative regimes. Components:</p> <ul style="list-style-type: none"> <li>• Appropriate licensing, zoning, and/or permitting processes for maritime activities, use and development, and revenue management, linked to overall maritime strategic objectives</li> <li>• Solicitation and consideration of stakeholder inputs</li> <li>• Development of targeted and specific enforcement capacities</li> <li>• Development of an organized, legitimate, and transparent dispute resolution process</li> <li>• Promulgation of specific and timely public information</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>4. Ability to develop maritime policy on an ongoing basis. Components:</p> <ul style="list-style-type: none"> <li>• Monitoring and evaluation for policy assessment</li> <li>• Regular policy reviews</li> <li>• Appropriate research and analysis</li> <li>• Appropriate planning data</li> <li>• Interagency, legal, and legislative reviews appropriate to policy development</li> <li>• Transparent budgeting and oversight planning frameworks</li> </ul>		
<p><b>d. Diplomatic and foreign affairs support</b> The tasks required to coordinate between civil and criminal law enforcement and foreign affairs entities to ensure effective attainment of national maritime goals.</p>	<p>1. Ability to participate in international and multilateral administrative bodies (maritime and non-maritime). Component:</p> <ul style="list-style-type: none"> <li>• Recruitment and maintenance of professional staff with requisite expertise</li> </ul> <p>2. Ability to negotiate and implement appropriate treaties relating to maritime matters such as piracy, trade, flag state control, extradition, renewable industries, refugees, migration, and trafficking in persons. Components:</p> <ul style="list-style-type: none"> <li>• Recruitment and maintenance of professional staff with requisite expertise</li> <li>• Processes for public consultation and comment</li> </ul> <p>3. Ability to deploy knowledgeable diplomatic personnel in support of maritime-related interagency activities. Components:</p> <ul style="list-style-type: none"> <li>• Professional staff with requisite interagency expertise</li> </ul>		
<p><b>e. Maritime programs</b> The tasks required to develop and enforce regulations and standards in support of national strategies and goals.</p>	<p>1. Ability to encompass the complete value chain of regulatory activity. Components:</p> <ul style="list-style-type: none"> <li>• Prevention, through creation and promulgation of standards and rules</li> <li>• Protection, through the use of inspection and enforcement authorities</li> <li>• Response, through the use of investigation and enforcement authorities</li> <li>• Mitigation</li> <li>• Restoration</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>f. Maritime professionals</b> The tasks required to recruit, educate, train, and retain maritime personnel across the full spectrum of maritime safety and security. Includes both public and private sector and related support personnel.</p>	<ol style="list-style-type: none"> <li>1. Ability to strategically manage maritime human capital. Components:                             <ul style="list-style-type: none"> <li>• Needs analyses for public sector requirements</li> <li>• Needs analyses for private sector requirements</li> <li>• Planning for and implementation of recruitment programs designed to provide sufficient numbers of personnel with appropriate skill sets</li> <li>• Planning for and implementation of adequate/timely compensation and pension systems</li> </ul> </li> <li>2. Ability to qualify, professionally develop, and provide continuing education and training to personnel. Components:                             <ul style="list-style-type: none"> <li>• Development of qualifications and standards, including adherence to rule of law</li> <li>• Appropriate application/acceptance procedures</li> <li>• Appropriate (and transparently promulgated and published) licensing and testing requirements</li> <li>• Inspection and investigation capacities</li> <li>• Appropriate continuing education requirements</li> <li>• Ethics and oversight mechanisms</li> </ul> </li> <li>3. Ability to train and educate maritime professionals adequately through programs and facilities (such as maritime, coast guard, or naval academies) to support public and private sector personnel needs. Components:                             <ul style="list-style-type: none"> <li>• Organization</li> <li>• Funding (public and private)</li> <li>• Staffing</li> <li>• Curricula</li> <li>• Equipment</li> </ul> </li> </ol>		



SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>g. Maritime agency outreach and stakeholder coordination</b></p> <p>The tasks required to ensure appropriate input and coordination for policy decisions from a wide range of maritime security stakeholders and dissemination of information to those affected by maritime security issues.</p>	<ol style="list-style-type: none"> <li>1. Ability to coordinate with stakeholders through a formal process. Components:                             <ul style="list-style-type: none"> <li>• Regularized dissemination of maritime information to mariners</li> <li>• Communication on regulations and policies</li> <li>• Notification during incidents</li> <li>• Information data sharing (e.g., criminal background, threat or risk analyses, exercise or drill after action reports)</li> </ul> </li> <li>2. Ability to communicate with the public on maritime issues. Components:                             <ul style="list-style-type: none"> <li>• Safety education</li> <li>• Solicitation of notice and comment on policy and regulation</li> <li>• Advance publication of planned regulations</li> <li>• Planned enforcement activities, as appropriate</li> <li>• Exchange of information on best practices with private sector stakeholders</li> </ul> </li> </ol>		
<p><b>h. Accountability and oversight</b></p> <p>The tasks required to ensure policy development and implementation is conducted in a transparent, accountable, and acceptable manner.</p>	<ol style="list-style-type: none"> <li>1. Ability to oversee maritime security programs. Components:                             <ul style="list-style-type: none"> <li>• Fidelity to a comprehensive and appropriate ethics regime</li> <li>• Development and use of appropriate inspector general functions</li> <li>• Use of innovative anti-corruption programs</li> <li>• Establishment and implementation of effective programs to protect human rights</li> <li>• Performance measurement systems, as appropriate</li> </ul> </li> </ol>		

## 2. Maritime Civil and Criminal Authority

The exercise of authorities and responsibilities to secure the maritime realm from illegal activities such as intentional damage to maritime interests through sabotage, subversion, terrorism, or criminal acts; border exploitation; and illegal damage or removal of marine resources.

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>a. Enforcement of civil and criminal laws</b> The tasks required to ensure effective implementation and enforcement of all applicable treaties, laws, and regulations in a transparent and ethical manner.</p>	<ol style="list-style-type: none"> <li>1. Ability to provide trained and qualified law enforcement personnel. Components:                             <ul style="list-style-type: none"> <li>• Appropriate recruiting and training programs to field an effective law enforcement force</li> <li>• Appropriate ongoing and specialized training programs for unique maritime challenges and environments</li> <li>• Complaint and investigative capacity</li> <li>• Administrative enforcement of professional standards</li> </ul> </li> <li>2. Ability to enforce laws utilizing interagency and international coordination and cooperation. Components:                             <ul style="list-style-type: none"> <li>• Compliance with international obligations</li> <li>• Commercial and trade concerns</li> <li>• Environmental and public health programs</li> <li>• Security and investigative protections</li> <li>• Appropriate sharing of intelligence and threat analyses, financial data, law enforcement data and joint training results</li> <li>• Ability to share information internationally, as appropriate, and request/provide mutual legal assistance</li> </ul> </li> <li>3. Ability to hold personnel administratively, criminally, and professionally accountable to a defined set of ethical standards to maintain public integrity and combat corruption; and to hold private sector and other organizations responsible, as appropriate. Components:                             <ul style="list-style-type: none"> <li>• Testing, licensing and continuing education for law enforcement personnel on legal, operational and strategic skills and knowledge</li> <li>• Inspector general oversight power (including referral) and capacity</li> <li>• Establishment and management of appropriate expertise to ensure adequate oversight</li> </ul> </li> </ol>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>4. Ability to conduct operations, including joint operations. Components:</p> <ul style="list-style-type: none"> <li>• Routine patrols</li> <li>• Inspection, boarding, and detection/search/seizure enforcement processes</li> <li>• Investigation, chain of custody, and prosecutorial liaison</li> <li>• Non-permissive/non-compliant boarding capability</li> <li>• Specialized security activities, including SWAT, VIP security, crowd control, anti-terrorism/critical maritime infrastructure protection, and all-hazard responses</li> <li>• Threat detection</li> <li>• Information coordination and sharing</li> <li>• Joint integrated operations by maritime and other agencies and departments to interdict criminal activities</li> </ul>		
<p><b>b. Integrated border management</b> The tasks required to provide proper border oversight to ensure legitimate trade duties and tariffs are collected and illegal movement of goods and people is prevented.</p>	<p>1. Ability to execute customs laws, regulations, and policies. Components:</p> <ul style="list-style-type: none"> <li>• Adherence to WCO SAFE Framework of Standards and/or other international and regional agreements</li> <li>• Laws and policies appropriate to address standards and procedures</li> <li>• Customs processes to improve security and border integrity while facilitating the flow of commerce</li> </ul> <p>2. Ability to execute customs operations. Components:</p> <ul style="list-style-type: none"> <li>• Sufficient numbers of trained and supervised personnel to patrol, staff, and oversee customs operations at all ports of entry</li> <li>• Lawful implementation of pre-shipment and reception inspection standards and operations</li> </ul> <p>3. Ability to execute customs import/export duties. Components:</p> <ul style="list-style-type: none"> <li>• A system for the collection of excise, trade duties and maritime tonnage taxes</li> <li>• Interagency coordination and legislative liaison to connect revenues to national transportation infrastructure improvement, maritime asset acquisition and maintenance, and port and harbors development and improvement</li> <li>• Appropriate balance between duty collection and competitive markets</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>4. Ability to control ports of entry. Components:</p> <ul style="list-style-type: none"> <li>• Existence of identified borders and formally designated ports of entry</li> <li>• Appropriately staffed security, inspection, immigration, monitoring, intelligence collection, and threat abatement entities</li> <li>• Appropriate immigration/border control functions, including visa issuance and passport control, as well as access to foreign ministry records</li> <li>• Legally established command and control implemented by professionals, including appropriate interagency partners as necessary</li> </ul> <p>5. Ability to conduct border surveillance. Components:</p> <ul style="list-style-type: none"> <li>• Border checkpoints at other major crossings</li> <li>• Air, land, and on-water patrol capability</li> <li>• Intelligence collection and threat assessment</li> <li>• Interagency coordination to manage overlapping and complementary responsibilities</li> </ul>		
<p><b>c. Judicial sector support</b> The tasks required to adjudicate maritime-related cases within an open legal system with an understanding of the unique aspects of the maritime operating environment.</p>	<p>1. Ability to provide a capable judiciary and judicial support process. Components:</p> <ul style="list-style-type: none"> <li>• Knowledgeable and continually educated judiciary</li> <li>• Infrastructure and facilities to adjudicate maritime and applicable non-maritime (e.g., immigration) cases</li> </ul> <p>2. Ability to provide capable prosecutorial service for maritime-related offense adjudication. Components:</p> <ul style="list-style-type: none"> <li>• Knowledgeable and continually educated prosecutorial professionals</li> <li>• Infrastructure and facilities to prosecute maritime, as well as applicable non-maritime (e.g., immigration) cases</li> <li>• Investigative experience, capacity, and authority</li> <li>• Discretion to prosecute</li> </ul>		

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>3. Ability to maintain a corrections infrastructure and system. Components:</p> <ul style="list-style-type: none"> <li>Professional, trained, equipped and accountable corrections personnel</li> <li>Infrastructure and facilities necessary to detain persons on pending charges and imprison those convicted of maritime crimes, including those committed on the high seas</li> <li>Efficient administrative procedures for tracking and monitoring detained and convicted inmates</li> <li>Investigation and prosecution of abuses of persons in custody</li> </ul>		
<p><b>d. Port security</b> The tasks required to ensure maritime ports and the marine transportation system are protected, and that the ability to use or exploit them as a means of attack on domestic territory, population, vessels, and infrastructure is denied.</p>	<p>1. Ability to identify threat conditions and to set appropriate security levels to address the threat on a sustainable basis. Components:</p> <ul style="list-style-type: none"> <li>Linkages with intelligence sources</li> <li>Communication mechanisms to pass threat information as appropriate</li> </ul> <p>2. Ability to control access of both personnel and materials; to conduct appropriate screenings of the workforce and workforce applicants; and to detect and appropriately respond to threats. Components:</p> <ul style="list-style-type: none"> <li>Effective oversight by the appropriate maritime administrations</li> <li>Effective training, drills and exercises conducted in the port</li> </ul>		
<p><b>e. Vessel security</b> The tasks required to ensure vessels are protected from access or exposure to unauthorized cargo, people, tracking, or monitoring, and from being used or exploited as a means of attack.</p>	<p>1. Ability to control access; to conduct appropriate screenings of the workforce and workforce applicants; to detect and appropriately respond to threats; to counter-detect unauthorized monitoring and tracking; and to counter threats with appropriate use of force. Components:</p> <ul style="list-style-type: none"> <li>Effective oversight by the appropriate maritime administrations</li> <li>Effective training, drills and exercises conducted on vessels</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>f. Supply chain security</b> The tasks required to ensure components or elements that support or contribute to the maritime supply chain, including but not limited to cargo, containers, fuel, equipment, parts, shore side facilities, manufacturers, seafarers, longshoremen, stevedores, and laborers are protected from unauthorized access, use, or exploitation as a means of attack.</p>	<p>1. Ability to control access; to conduct appropriate screenings of the workforce and workforce applicants; to detect and appropriately respond to threats; to detect fraudulent IDs or attempted unlawful access; and to counter threats with appropriate use of force. Components:</p> <ul style="list-style-type: none"> <li>• Outreach and coordination with the private sector</li> <li>• Training and equipment to assist in fraud detection</li> </ul>		
<p><b>g. Maritime environmental enforcement</b> The tasks required to ensure effective enforcement of all applicable laws to protect the marine environment, consistent with international law.</p>	<p>1. Ability to manage maritime species and habitats. Components:</p> <ul style="list-style-type: none"> <li>• Laws and regulations that prescribe standards and prohibitions relating to invasive and endangered species, habitats, and biodiversity management</li> <li>• Enforcement of licensing and permitting regimes and supporting investigation capacity</li> <li>• Prosecutorial and judicial capacity for administrative, civil, and criminal enforcement</li> <li>• Maritime personnel who are trained, assigned, and supervised to enforce laws and regulations relating to species and habitat protection</li> <li>• Public and private partnerships and education to address species and habitat preservation, mitigation, and restoration</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>2. Ability to control systematically pollution in the marine environment. Components:</p> <ul style="list-style-type: none"> <li>• Effective ongoing participation in discussions at multilateral organizations on international standards</li> <li>• Laws and regulations consistent with international law that prescribe standards and prohibitions for dumping, discharges from ships, and other maritime pollution management across all media</li> <li>• Enforcement of licensing and permitting regimes, with investigation capacity</li> <li>• Prosecutorial and judicial capacity for administrative, civil, and criminal enforcement</li> <li>• Training, assignment, and supervision of maritime personnel to undertake enforcement actions</li> </ul>		

### 3. Maritime Defense

The exercise of defensive authorities and responsibilities to deter, detect, and interdict unlawful acts against the infrastructure, assets, and interests of a country’s maritime domain, stakeholders, and users.

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>a. Maritime defense administration</b> The tasks required to clarify roles and responsibilities within and among national maritime agencies with defense roles, at the national and sub-national level, and to coordinate in support of national strategy.</p>	<ol style="list-style-type: none"> <li>1. Ability to facilitate interagency coordination and cooperation. Components:                             <ul style="list-style-type: none"> <li>• Compliance with international obligations</li> <li>• Environmental and public health programs</li> <li>• Security and investigative protections</li> </ul> </li> <li>2. Ability of national defense forces to work collaboratively with foreign ministry and other diplomats on maritime defense issues. Components:                             <ul style="list-style-type: none"> <li>• Interagency collaboration and approval processes, including for joint planning</li> <li>• Personnel exchanges</li> <li>• Information sharing protocols</li> </ul> </li> <li>3. Ability to manage maritime defense personnel. Components:                             <ul style="list-style-type: none"> <li>• Recruitment and vetting programs</li> <li>• Organized, coordinated training programs overseen by competent officers and Non-Commissioned Officer (NCO) corps</li> </ul> </li> <li>4. Ability to administer a maritime, military, civil, criminal, and administrative justice system. Components:                             <ul style="list-style-type: none"> <li>• Appropriate legal basis</li> <li>• Complaint and investigative capacity</li> <li>• Adjudication capacity</li> <li>• Records and information management systems</li> <li>• Coordination and liaison with other law enforcement personnel</li> </ul> </li> </ol>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>5. Ability to manage systematically maritime defense procurement. Components:</p> <ul style="list-style-type: none"> <li>• Transparent, public processes</li> <li>• Complaint and investigation capacity</li> <li>• Adequate project management</li> <li>• Appropriate anti-corruption, conflict of interest, and ethical guidelines and enforcement</li> </ul> <p>6. Ability to manage maritime defense financial management processes. Components:</p> <ul style="list-style-type: none"> <li>• Transparent budgeting</li> <li>• Executive and legislative oversight</li> <li>• Internal inspector general controls</li> </ul>		
<p><b>b. Maritime defense forces</b></p> <p>The tasks required to ensure naval assets and agencies with defense roles are able to protect the national maritime domain from threats or losses from illegal acts or aggression that could have security, safety, economic, or environmental impacts.</p>	<p>1. Ability to exert appropriate command and control of naval and supporting forces for maritime operations effectively. Components:</p> <ul style="list-style-type: none"> <li>• Military command structures subordinate to, and in support of, appropriate civilian authorities</li> <li>• Inter-service liaison and coordination</li> <li>• Regional and international cooperation</li> </ul> <p>2. Ability to fulfill specified operational missions, such as those to detect, deter, and interdict threats against the national infrastructure, assets, and interests of national maritime domain stakeholders and users. Components:</p> <ul style="list-style-type: none"> <li>• Policies and plans</li> <li>• Standard operating procedures</li> <li>• Standard organization regulations manuals</li> <li>• Tactics, techniques, and procedures</li> <li>• Ongoing operational training</li> </ul>		

Continued on next page.

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>3. Ability to deploy and sustain a maritime defense fleet. Components:</p> <ul style="list-style-type: none"> <li>• Vessels, aircraft, and supporting equipment</li> <li>• Adequate levels of equipment maintenance</li> <li>• Stores, fuels, and supplies to ensure open sea lines of communication and the safe transit of maritime commerce</li> </ul> <p>4. Ability to collect, secure, process, analyze, integrate, and interpret on a systematic basis available information/intelligence concerning external threats to the maritime domain. Components:</p> <ul style="list-style-type: none"> <li>• Threat detection</li> <li>• Investigative capacity</li> <li>• Information coordination and sharing</li> <li>• MSA/MDA coordination</li> </ul> <p>5. Ability to plan for maritime defense contingencies. Components:</p> <ul style="list-style-type: none"> <li>• Training</li> <li>• Joint exercises</li> <li>• International interoperability</li> </ul>		
<p><b>c. Maritime situational awareness (MSA)/ maritime domain awareness (MDA)</b>                      The tasks required to effectively understand anything associated with the global and regional maritime domain that could have security, safety, economic, or environmental impacts.</p>	<p>1. Ability to perform persistent monitoring of vessels, cargo and crews through development of a national maritime common operational picture (COP). Component:</p> <ul style="list-style-type: none"> <li>• Accessibility and maintenance of data on air and sea vessels, including people, organizations, and cargo, and/or critical maritime infrastructure</li> </ul> <p>2. Ability to operate effectively one or more inter-agency maritime operations/fusion centers. Components:</p> <ul style="list-style-type: none"> <li>• Common operational pictures</li> <li>• Fused air/sea/land information streams</li> <li>• Intelligence collection and analysis</li> <li>• Threat detection from sea, air, and land</li> <li>• Investigative capacity</li> </ul>		

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>3. Ability to coordinate, share, and disseminate information. Components:</p> <ul style="list-style-type: none"> <li>• Multi-agency/stakeholder information sharing</li> <li>• Information coordination and sharing from all domains and regional partners</li> <li>• Dissemination channels</li> </ul>		

## 4. Maritime Safety

The exercise of safety authorities and responsibilities to ensure personnel, vessel, and facility safety. Includes domestic and foreign flag vessels, onshore and offshore facilities, and the ability to provide oversight and enforcement of standards; investigate accidents and misconduct; and improve standards and policies.

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>a. Maritime safety administration</b> The tasks required to manage the qualifications and suitability of maritime professionals and other users of the maritime domain.</p>	<p>1. Ability to ensure safety, professionalism, transparency, and anti-corruption protections for maritime professionals, including harbor masters, pilots, merchant mariners, and commercial fishermen. Components:</p> <ul style="list-style-type: none"> <li>• Administrative licensing and documentation processes and capacity</li> <li>• Testing/licensing/re-testing for inland waterway maritime professionals</li> <li>• Complaint and investigative capacity of accidents, abuse, misconduct and negligence, including illegal use of child labor and other labor abuses</li> <li>• Administrative judicial enforcement</li> <li>• Interagency coordination and information sharing (e.g., criminal background checking)</li> <li>• Physical requirement investigations, such as for drug testing</li> <li>• Continuing education</li> </ul>		
<p><b>b. Flag state control</b> The tasks required to manage national flag vessels. This includes adequate working conditions and safety and environmental protection requirements, regardless of vessel size or location.</p>	<p>1. Ability to implement SOLAS/MARPOL obligations through law and regulations. Components:</p> <ul style="list-style-type: none"> <li>• Vessel registration, licensing, permissions, inspection, and documentation monitoring systems</li> <li>• Vessel construction and operations safety and environmental regulation/inspection systems</li> <li>• Trained corps of vessel inspectors and/or procedures for reviewing qualifications and selecting competent, recognized organizations authorized to carry out statutory functions, in conformity with international law</li> <li>• Laws and/or implementing regulations for domestic vessels not covered by SOLAS/MARPOL</li> </ul>		

Continued on next page.

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>c. Port state control</b> The tasks required to inspect foreign ships in national ports to verify that the conditions of the ship and its equipment comply with the requirements of international regulations and that the ship is manned and operated in compliance with these rules.</p>	<p>1. Ability to participate in and implement relevant international port state control conventions. Components:</p> <ul style="list-style-type: none"> <li>• Port state risk evaluation system, including advance notice of arrival</li> <li>• Port state vessel monitoring, including MSA/MDA linkages</li> <li>• Inspection personnel and equipment, both at sea and onshore, for inspection and continuous monitoring of vessel movements and status</li> </ul>		
<p><b>d. Fishing and small vessel safety and operations management</b> The tasks required to manage licensing, safety, and fish sustainability as related to fishing and small vessels.</p>	<p>1. Ability to register, license, permit, inspect, document, and monitor fishing and small vessels. Components:</p> <ul style="list-style-type: none"> <li>• Vessel construction and operations safety and environmental regulation/inspection systems</li> <li>• Fishing grounds, catch, and gear restrictions</li> <li>• Detection, patrol, boarding, search/seizure, and enforcement processes for illegal, unreported, or under-reported catch</li> </ul>		
<p><b>e. Maritime facility safety management</b> The tasks required to manage onshore maritime terminals and offshore extraction-related terminals and industrial sites.</p>	<p>1. Ability to operate and manage maritime facilities (including extraction industries) and their cargo safely. Components:</p> <ul style="list-style-type: none"> <li>• Facility construction, operations safety, and environmental protection regulation and inspection systems</li> <li>• Inspection, visitation, search/seizure, and related enforcement processes</li> </ul>		

Continued on next page.

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>f. Mariner licensing administration</b></p> <p>The tasks required to ensure that commercial vessels are operated by trained inland waterway personnel and that shipboard personnel have appropriate credentials.</p>	<p>1. Ability to ensure safety, professionalism, transparency, and anti-corruption protections for qualification and credentialing of seafarers. Components:</p> <ul style="list-style-type: none"> <li>• Administrative licensing and documentation processes and capacity</li> <li>• Complaint and investigative capacity of accidents, abuse, misconduct, negligence, etc.</li> <li>• Testing/licensing/re-testing for pilots and other professionals</li> <li>• Inspector general oversight, powers, and capacity</li> <li>• Interagency coordination and information sharing (e.g., criminal background checking)</li> <li>• Databases of licensed mariners and/or vessel operators</li> <li>• Secure identity credentials</li> <li>• Continuing education</li> </ul>		
<p><b>g. Aids to navigation infrastructure, equipment and maintenance</b></p> <p>The tasks required to provide and maintain lights, hazard warnings, channel markings, communications and vessel traffic controls.</p>	<p>1. Ability to ensure safe navigation through suitable hazard warnings and channel markings. Components:</p> <ul style="list-style-type: none"> <li>• Buoys, lighthouses, etc.</li> <li>• Radio communication systems</li> <li>• Vessel traffic information systems</li> <li>• Aids to navigation installation and maintenance equipment</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>h. Channel and harbor management</b></p> <p>The tasks required to promote efficient trade and transport, public health, and sound environmental protection, such as navigational safety; dredging and wreck removal; and bridge management over navigable waterways.</p>	<p>1. Ability to ensure adequate harbor and channel viability through interagency coordination, equipment capacity, and regulatory enforcement. Components:</p> <ul style="list-style-type: none"> <li>• Dredging capability</li> <li>• Wreck removal</li> <li>• Bridge construction and management</li> <li>• Operational management of vessel movements, including enforcement</li> </ul>		
<p><b>i. Maritime safety interagency coordination</b></p> <p>The tasks required to manage multiple agency roles and functions.</p>	<p>1. Ability to coordinate and cooperate on an interagency basis to ensure compliance. Components:</p> <ul style="list-style-type: none"> <li>• International obligations</li> <li>• Commercial and trade concerns</li> <li>• Environmental and public health programs</li> <li>• Security and investigative protections</li> </ul>		

## 5. Maritime Response and Recovery

The exercise of specialized response and recovery authorities and responsibilities to react to maritime-related incidents and to recover rapidly from those incidents.

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>a. Emergency response administration</b></p> <p>The tasks required to support, coordinate, and improve planning, preparation, response, and recovery to mitigate maritime all-hazards.</p>	<p>1. Ability to plan appropriately for national and sub-national maritime emergencies.</p> <p>Components:</p> <ul style="list-style-type: none"> <li>• Appropriate organizational structures and oversight (separate agencies, councils, etc.)</li> <li>• Command and control capabilities</li> <li>• Interagency communication and coordination</li> <li>• Compliance with international agreements and requests for assistance</li> <li>• Investigative, administrative, civil, and criminal prosecutorial capacities</li> <li>• Financial recovery plans, bonding requirements, civil penalties, and national emergency response accounts</li> <li>• Public procurement processes and oversight</li> </ul>		
<p><b>b. Incident management</b></p> <p>The tasks required to prepare for, respond to, and manage all types of incidents, including search-and-rescue, migration, fire, and environmental incidents occurring in on- or off-shore facilities, harbors, channels, and vessels; or offshore.</p>	<p>1. Ability to manage an operational system of incident command and control.</p> <p>Components:</p> <ul style="list-style-type: none"> <li>• Incident response oversight for safety, health, and human rights protections for individuals rescued/intercepted at sea and for interagency responsibilities</li> <li>• Operations centers infrastructure</li> <li>• Resource and responsibility coordination plans</li> <li>• Incident response plans, drills, and exercises</li> <li>• Recovery and mitigation plans, drills and exercises</li> <li>• Interagency plans, including coordination and deployment of military and sub-national resources</li> <li>• Linkage of necessary incident resources and MSA/MDA</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>c. Search and rescue</b> The tasks required to manage operational plans and special equipment to search for and rescue persons in distress.</p>	<p>1. Ability to manage on a systemic basis maritime search and rescue operations, including monitoring of distress situations and communication with rescue assets. Components:</p> <ul style="list-style-type: none"> <li>• Search and rescue plans</li> <li>• Readily available personnel and equipment, including air, land and marine vessels; drift models; and updated charts.</li> <li>• MSA/MDA</li> </ul>		
<p><b>d. Fire</b> The tasks required to manage operational plans and special equipment to respond to maritime-related fires on vessels or at facilities.</p>	<p>1. Ability to manage operational maritime firefighting. Components:</p> <ul style="list-style-type: none"> <li>• Fire prevention and response plans</li> <li>• Readily available personnel and equipment, including air, land, and marine vessels; foam/extinguishing agents; and personal protection gear</li> </ul>		
<p><b>e. Environmental</b> The tasks required to manage contingency plans and special equipment to combat spills from vessels and facilities (onshore and offshore) and air discharges in the marine domain and to protect affected individuals from pollution.</p>	<p>1. Ability to manage marine environmental spill response. Components:</p> <ul style="list-style-type: none"> <li>• Contingency plans</li> <li>• Readily available personnel and equipment, including air, land, and marine vessels; and toxic material containment and mitigation equipment</li> <li>• Personal protective equipment for responders</li> <li>• Protection of affected persons</li> </ul>		

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>f. Maritime defense assistance to civil authorities</b></p> <p>The tasks required to authorize interagency activities by agencies with defense roles through appropriate law and policy and to organize interagency cooperation at the national and sub-national level in response to emergency incidents.</p>	<p>1. Ability to utilize maritime defense forces in support of national all-hazards emergencies, including security, environmental, and piracy incidents; and accidents at sea. Components:</p> <ul style="list-style-type: none"> <li>• Appropriate laws and policies</li> <li>• Interagency coordination protocols</li> <li>• Communication and coordination with private sector stakeholders and the public</li> </ul>		
<p><b>g. Investigation and after-action analysis:</b></p> <p>The tasks required to conduct an official inquiry into the causes of an incident, to work with responsible parties to undertake mitigation, and to identify measures to prevent repetition of similar incidents.</p>	<p>1. Ability to determine the causes of maritime incidents and to identify measures to prevent a recurrence. Components:</p> <ul style="list-style-type: none"> <li>• Subject matter experts</li> <li>• Procedures for inquiries and interviews with persons involved</li> </ul>		

## 6. Maritime Economy

The exercise of economic authorities and responsibilities to promote prosperity within and related to the maritime realm. Includes facilitation of infrastructure development to support sustainable economic capacity building for, and management of, maritime revenue streams from tourism, fishing, resource extraction, commercial shipping, and port operations.

SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>a. Economic activity regulation and management</b></p> <p>The tasks required to ensure a comprehensive maritime economic and regulatory environment contributes to the sustainable commercial development of a nation, through the promotion of safety of passage, compliance with international obligations, and improvement in levels of competence, resulting in increased competitiveness of goods and services.</p>	<p>1. Ability to manage non-renewable maritime resource extraction for natural resources such as oil, gas, and minerals. Components:</p> <ul style="list-style-type: none"> <li>• Sustainable, balanced economic development plans</li> <li>• Impact assessments</li> <li>• Laws and regulations that prescribe standards and prohibitions for management of nonrenewable maritime resources (including oil, gas, and mineral extraction)</li> <li>• Enforcement of licensing and permitting regimes, with supporting investigation capacity</li> <li>• Prosecutorial and judicial capacity for administrative, civil, and criminal enforcement</li> <li>• Training, assignment, and supervision of maritime personnel to undertake enforcement</li> <li>• Public and private partnerships and education to address preservation, mitigation, and restoration of renewable resources affected by nonrenewable resource extraction</li> <li>• Qualified personnel with expertise for oversight</li> <li>• Anti-corruption programs</li> <li>• Public stakeholder communication processes</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>2. Ability to manage renewable maritime resource extraction for fishing, aquaculture, marine and coastal tourism, and recreation. Components:</p> <ul style="list-style-type: none"> <li>• Sustainable, balanced economic development plans</li> <li>• Impact assessments</li> <li>• Laws and regulations that prescribe standards and prohibitions for management of renewable maritime resources (including fishing, aquaculture, recreation, and tourism)</li> <li>• Enforcement of licensing and permitting regimes, with investigation capacity</li> <li>• Prosecutorial and judicial capacity for administrative, civil, and criminal enforcement</li> <li>• Training, assignment and supervision of maritime personnel to undertake enforcement</li> <li>• Public and private partnerships and education to address preservation, mitigation, and restoration of renewable resources</li> <li>• Qualified personnel with requisite expertise for oversight</li> <li>• Anti-corruption programs</li> <li>• Public stakeholder communication processes</li> </ul> <p>3. Ability to facilitate maritime trade. Components:</p> <ul style="list-style-type: none"> <li>• Bilateral and multilateral diplomatic engagement</li> <li>• Vessel management</li> <li>• Well-defined and accepted terms of trade, taxation regimes, and bilateral customs agreements</li> <li>• Interagency coordination of trade and revenue activities</li> </ul> <p>4. Ability to regulate trade of sensitive and dual use items through establishment and maintenance of strategic trade controls that ensure export licenses support foreign policy objectives and national security priorities. Components:</p> <ul style="list-style-type: none"> <li>• Regulations for restricted and dual use goods</li> <li>• Interagency cooperation</li> <li>• Outreach to business communities</li> </ul>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
<p><b>b. Commercial ports</b></p> <p>The tasks required to ensure a competitive position in the global economic marketplace through the movement of imported and exported goods, both cost effectively and efficiently. Ports and associated waterways are maintained in navigable condition, are accessible and secure, have properly maintained facilities and are supported by necessary infrastructure.</p>	<ol style="list-style-type: none"> <li>1. Ability to support robust maritime port commerce with adequate infrastructure and efficient operations of port facilities. Components: <ul style="list-style-type: none"> <li>• Public-private partnership program framework</li> <li>• Negotiation of public/private financing</li> <li>• Transparent and nondiscriminatory procedures for soliciting bids and granting concessions to operate port facilities</li> <li>• Container/break-bulk cargo terminals, including infrastructure, warehousing, and storage yards</li> <li>• Bulk wet and dry cargo terminals, including supporting infrastructure, warehousing, and storage yards</li> <li>• Passenger terminals for ferries and cruise ships</li> </ul> </li> <li>2. Ability to manage and oversee the ownership, licensure, income, and operations of maritime trade enterprises. Components: <ul style="list-style-type: none"> <li>• Nondiscriminatory regulatory framework consistent with international trade principles</li> <li>• Revenue generation/collection</li> </ul> </li> </ol>		
<p><b>c. Transport</b></p> <p>The tasks required to promote the development of efficient, integrated maritime supply chains, with a combination of personnel and equipment able to support broad national maritime goals, development programs, and initiatives.</p>	<ol style="list-style-type: none"> <li>1. Ability to manage and oversee the ownership, licensure, income, and operations of maritime-related transportation. Components: <ul style="list-style-type: none"> <li>• Nondiscriminatory regulatory framework consistent with international trade principles</li> <li>• Nondiscriminatory revenue generation and collection</li> </ul> </li> </ol>		

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SUB-FUNCTIONS	CAPABILITIES	Approach Measurement	Delivery Measurement
		Please refer to the Approach and Delivery Indicator Measurement Chart on Page 3 and Appendix I on Page 44.	
	<p>2. Ability to support maritime commerce through maritime transportation, integration of non-maritime transportation modes, and infrastructure across relevant environments. Components:</p> <ul style="list-style-type: none"> <li>• Plans (national and multi-national)</li> <li>• Urban planning expertise</li> <li>• Public land management</li> <li>• Appropriate use of eminent domain</li> <li>• Negotiation of public/private financing</li> <li>• Integration of multiple transportation modes and ports supporting maritime commerce</li> </ul>		
<p><b>d. Market conditions</b> The tasks required to encourage markets to function efficiently and to prevent (including through the establishment of incentive structures and enforcement mechanisms) their exploitation.</p>	<p>1. Ability to ameliorate market imbalances that might have a negative effect on the efficiency of maritime commerce, such as monopolies; monopsonies; cartels or oligopolies; corruption; and misuse of financial and non-financial sectors for laundering of illicit gains and/or market abuse in support of terrorism or other illegal activities. Components:</p> <ul style="list-style-type: none"> <li>• Regulatory frameworks</li> <li>• Diplomacy</li> <li>• Public-private partnerships</li> </ul> <p>2. Ability to ameliorate information deficits that might disadvantage maritime commerce. Components:</p> <ul style="list-style-type: none"> <li>• Public access to information, as appropriate</li> <li>• Information technology/management</li> </ul>		

# APPENDIX: Approach And Delivery Measurement

As indicated on page 3 and as reproduced at the end of this appendix, a capability’s approach and delivery may be measured in more than one way. Explanatory text should accompany any use of the qualitative and/or quantitative indicators provided in this Guide. Such text should clarify areas of strength or weakness in order to assist others to validate the findings, and where appropriate, direct responses to such findings through policy or program initiatives. The text may include other relevant details, such as the institution(s) responsible for the particular capability.

Organizing findings in a table may be useful for ease of reference. A notional example is provided below.

## EXAMPLE: APPROACH AND DELIVERY MEASUREMENT TABLE

MSSR Function	MSSR Sub-function	MSSR Capability	Approach Measurement		Delivery Measurement		Explanatory Notes
			Qualitative Indicator	Quantitative Indicator	Qualitative Indicator	Quantitative Indicator	
1	a	1	Modest	4	Nominal	1	Although initial efforts have been made to develop a national maritime strategy, no strategy has been finalized to date. As a result, no overarching strategic guidance has been provided to national maritime organizations and national budgeting does not adequately support maritime missions.
1	b	1	Nominal	2	Modest	3	Maritime roles and responsibilities have not been clarified in national legislation. Although agencies are performing many standard maritime roles, this lack of clarity has impeded coordination and cooperation between the national navy and the national coast guard.
1	b	2	Moderate	8	Moderate	6	A national maritime coordinating committee has been established and is generally effective at coordinating responses to complex maritime issues. However, the lack of clearly defined maritime roles and responsibilities noted above has limited the ability of the committee to coordinate key issues. Operational levels of coordination (common procedures, etc.) have also been less effective than they should be as a result.

## SUMMARY CHART: APPROACH AND DELIVERY INDICATORS AND DEFINITIONS

Qualitative Indicator Range	Quantitative Indicator Range	Approach Indicator Definition	Delivery Indicator Definition	Comments and Remarks
NOMINAL	0 – 2	Some activity may exist evidencing the capability measured, but such activities are not part of formal plans, policies, processes, or programs that would enable the capability to exist on a reliable and reproducible basis.	The capability is infrequently employed (0-30% of the time) and its contribution to positive outcomes is minimal.	Recognizes the existence of some effort or activity, even though it may not stem from formalized plans, policies, processes, or programs. Also recognizes scattered or disconnected efforts (often at the individual or local level).
MODEST	3 – 5	Organized, if basic, approaches to the capability exist, and efforts are in place to address weaknesses.	The capability is not consistently employed (30-60% of the time) and outcomes are erratic or unpredictable.	Recognizes that there may not be consistency of effort but that various levels of organization exist.
MODERATE	6 – 8	Organized activities supporting the capability are professional, formalized, and supported by adequate budget levels.	The capability is mostly employed (60-90% of the time) and produces adequate outcomes.	Shows sophistication and organization towards achieving a stated goal or objective. Even if capabilities are not consistently used or do not exist across the entirety of the maritime domain, outcomes are adequate.
SIGNIFICANT	9 – 10	Activities are formalized, planned, funded, assessed and adjusted on a continual basis, evidencing a significant level of capability in this area.	The capability is consistently employed (90% of the time or higher) and produces effective and efficient outcomes. Capability reviews ensure the capability is upgraded if/as circumstances require.	More robust capacity exists and is being sustained. Efforts are made continually to improve capacities across the maritime domain.





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