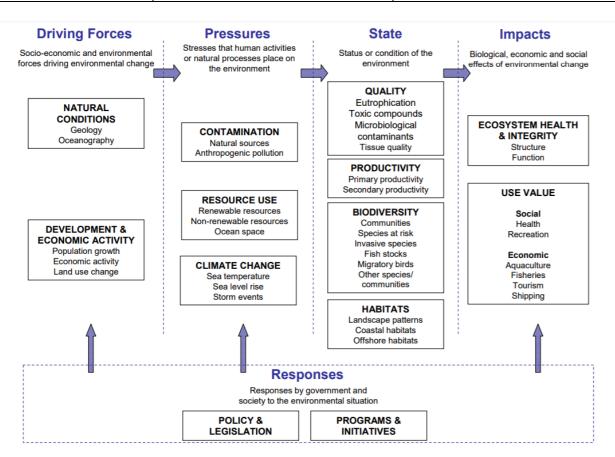
### **National SOC Report**

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
1.0 Introduction		· ·
1.1 Coverage and theme of the regional/ national SOC report		The theme of the SOC report is blue economy. The definition of blue economy is given in the Changwon Declaration 2012 <sup>1</sup> , which was adopted by the ministers of the East Asian Seas (EAS) Region. This is also in line with the SDGs, especially SDG 14.
1.2 Context and rationale of SOC report and the blue economy theme		Context: Da Nang Compact 2015, in particular Target 2. Discuss the rationale and importance of the SOC report. Discuss how the SOC report contributes to the blue economy assessment and monitoring of the implementation of the SDS-SEA, SDGs, other international agreements, and national laws and policies. Point out how the SOC report can support policy-making, and how it can be used for planning and management of the coastal and marine areas of the country, including the resources, environment, economic activities, and investments.
1.3 Concept and framework of the regional/national SOC report		Drivers-Pressures-State-Impacts-Response (DPSIR) Framework  The SOC report provides the description of the status and assessment of the following:  Driving forces: natural conditions (geology, oceanography, and other and physical and biological features); people (population, socioeconomic features, economic activities and development); underlying causes  Pressures: risks, threats and pressures from human activities, natural hazards and climate change  State and impacts:  - Ocean health: state of the coastal and marine ecosystems, resources and biodiversity; state of the marine environment: valuation of

<sup>&</sup>lt;sup>1</sup> "We understand the Blue Economy to be a practical ocean-based economic model using green infrastructure and technologies, innovative financing mechanisms, and proactive institutional arrangements for meeting the twin goals of protecting our oceans and coasts and enhancing its potential contribution to sustainable development, including improving human well-being, and reducing environmental risks and ecological scarcities." (Changwon Declaration 2012)

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
		<ul> <li>Ocean economy: outputs (revenues) and gross value added of the ocean economy, and its contribution to the GDP and employment</li> <li>Key ocean activities – fisheries and aquaculture, marine tourism; ports and shipping; offshore oil and gas: status; revenues; employment; sustainability; threats and major issues; government response; best practices</li> </ul>
		Response:  - Blue economy initiatives: examples of innovative and sustainable practices in ocean and coastal management, habitat conservation, pollution reduction, climate change response, etc. to achieve the SDG 14 targets, SDS-SEA targets, and ensure sustainable ocean economy and ocean health  - Policies and governance:  - Description of key policies, laws, international agreements adopted that would address the pressures and threats to ocean health and ocean economy.  - institutional arrangements and supporting mechanisms (budget and financing, capacity development; knowledge management; stakeholder participation; etc.) for the implementation of these policies, laws and international agreements.  - Assessment of enabling conditions that would support blue economy development.  - Gaps in policies, institutional arrangements and governance mechanisms.  - Opportunities for investments and partnerships for blue economy development and
1.4 Methodology, scope, and timeframe		achievement of the SDGs  Discuss the methodology used in the report; the scope of the report in terms of area and time; and the timeframe of the report.
		Methodology: Use of the DPSIR framework, and focus on blue economy theme; review of literature; research on existing studies; data gathering and consultations with key government agencies, academe, private sector and international organizations; analysis of changes and trends; etc.
		Scope: national; within the country's territory; with information up to the country's EEZ; with some inputs at the local level on good practices and governance; etc.

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
		Timeframe: data on demographic, economic and social indicators are for the years 2015-2016; There are time series data for some indicators.
1.5 Caveats and limitations		Discuss the limitations of the report.



Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
Part 1: State of Ocean Health		
and Ocean Economy		
2.0 The seas and people		This section provides an introduction to the seas, people, and the economy. This section also provides the socioeconomic aspects of the coasts and seas through the discussion of the ocean economy, and its contribution to the economy, employment and welfare. (More details will be presented and analyzed in the subsequent sections of the report.)
2.1 The Seas of (country)	Physical and biological features  - Location, geography  - Oceanography and geology: bathymetry, geology, geomorphology, currents, tides, and meteorology (climate, weather patterns, monsoon, rainfall), sea surface temperature, pH, salinity, density, etc.)  - water quality (dissolved oxygen, BOD, turbidity, total dissolved and suspended solids, chlorophyll, nutrients, heavy metals, POPs, PTS, etc.)  - hydrology, major rivers, tributaries - key ecological and coastal features	Description of marine water quality (additional data/analysis are to be shown in the section on risks and threats; pollution)  Brief description of coastal and ecological features (detailed data are to be shown in the section on coastal and marine ecosystems and biodiversity)
2.2 The people and economy of	Demography	
(country)	<ul> <li>Population (in 2016)</li> <li>Population growth (%, 2015-2016)</li> <li>Population growth the past 10 years (% average per annum)</li> <li>Population density</li> </ul>	
	- Age-sex structure	What is the age dependency ratio? This is used to measure the pressure on productive population. A high dependency ratio can cause serious problems for a country if a large proportion of a government's expenditure is on education, health, and social security (e.g., pension), which are most used by the youngest and the oldest in a population.  What is the gender ratio?
	- Coastal population - Coastal population density	What is the ratio of coastal population to total population? Are more people living in the coastal areas?  Is there rural to urban migration? What is the
	- Urban population	urbanization trend?

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
	- Rural population	Are the urban centers located in coastal areas?
	- Urban-rural population ratio	
		Discuss the pressures on coastal and marine
		resources that may result, including multiple
		resource use conflicts.
	Economy	
	- GDP (in US\$, in 2016, in constant	
	prices	
	- GNI (in US\$, in 2016, in constant	
	prices	
	- Real GDP growth rate (%, 2015-2016,	
	using constant prices)	
	- Real GDP per capita (in US%, in 2016)	
	- Unemployment rate in 2016 (%)	
	- Trade: major exports and imports	
	- Coastal livelihood	
	Social	IIDLie e cummon un consumo of current
	- Human development index (HDI)	HDI is a summary measure of average
	<ul><li>Poverty incidence</li><li>Coastal poor population</li></ul>	achievement in key dimensions of human development: a long and healthy life, being
	- Coastal poor population - Ethnic composition	knowledgeable and have a decent standard of
	- Language	living.
	- Religion	iiviiig.
	Health	Relate the prevalence of waterborne diseases to
	- Life expectancy – for males and	lack of access to water, sanitation, hygiene and
	females	wastewater management facilities.
	- Top 10 diseases	Is there an increase in percentage of population
	- Top 10 waterborne diseases -	with access to water, sanitation and wastewater
	morbidity and mortality cases	management facilities? Are there any studies
	- Access to improved water source or	showing outcomes of increased access?
	safe water supply	
	- Access to sanitation, and to	(Point out that more details on the pressures and
	wastewater management	threats as well as response and impacts in terms
		of governance and blue economy initiatives will
		be shown in the subsequent sections of the
		report.)
	Literacy and education	How will higher literacy rate and education
	- Literacy rate	attainment contribute to understanding of the
	- Education (% of population with	role of the oceans and coastal and marine
	college degree; % of population that	ecosystems, and importance of conserving the
	finished high school or secondary	natural capital?
	school	
	Gender:	Briefly discuss how the indicators are showing
	- child gender ratio; adult gender ratio	challenges or opportunities for women in the
	(from the age-sex structure)	ocean economy, coastal and ocean management,
	<ul> <li>Education gaps by gender;</li> </ul>	blue economy initiatives.
	participation of women in education	(Point out that more details will be shown in the
	- women employment	subsequent sections of the report.)
2.3 Ocean economy	Ocean economic activities or sectors	Discuss the following:
	fisheries and aquaculture	- % share of ocean economy to GDP
	<ul> <li>offshore oil and gas</li> </ul>	

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
3.0 Coastal and Marine Ecosystems and Biodiversity 3.1 Oceanographic features and role of ocean/seas	<ul> <li>offshore/coastal mining</li> <li>energy (ocean energy; coastal/offshore wind power and solar power)</li> <li>water (desalination)</li> <li>manufacturing: seafood processing; shipbuilding and repair; marine biotechnology and pharmaceuticals; salt</li> <li>marine construction</li> <li>ports and shipping</li> <li>marine tourism</li> <li>marine communications (submarine cables, etc.)</li> <li>government or public sector (navy, coast guard, marine environmental protection, mapping, etc.)</li> <li>maritime services (e.g., maritime insurance and finance; etc.)</li> <li>Indicators: For each ocean economic activity or sector:         <ul> <li>Outputs (in US\$, in 2015, in constant prices)</li> <li>Gross value added (GVA, in US\$, in 2015, in constant prices)</li> <li>employment</li> </ul> </li> </ul>	<ul> <li>% share of each ocean economic sector to ocean economy</li> <li>% share of each ocean economic sector to GDP</li> <li>Show the ranking of each sector.</li> <li>Which sector has the largest contribution to ocean economy, and to GDP? What are the top 3 sectors?</li> <li>% share of employment in ocean economy to total employment</li> <li>% share of employment in each ocean economic sector to total ocean economy employment</li> <li>% share of employment in each ocean economic sector to total employment</li> <li>Which sector has the largest employment? What are the top 3 sectors?</li> <li>What is the growth rate of the ocean economy? What are the changes?</li> <li>Are there any national policies and plans that promote and support the ocean economy? Is ocean economy highlighted in the medium term development plan?</li> <li>*Provide summary table for ocean economy.</li> <li>*Provide summary table for ocean economy.</li> <li>Discuss the effects of oceanographic and water quality features on ecology, ecosystem dynamics,</li> </ul>
3.2 Coastal and marine habitats	Habitats	distribution of phytoplankton and fisheries, habitats, food web, etc.  (See data presented in 2.1)  For each habitat or ecosystem, provide information on the following: • location • area; coverage (in km²) • increase? decrease? Remain the same? • Condition/quality • Excellent / Good / Poor? • Improvement? Decline? Remain the same? • Biodiversity indicators • species composition; species distribution • Improvement? Decline? Remain the same? • Change in species composition? • Uses and Nonmarket uses (ecosystem services provided by each habitat)

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
	<ul> <li>Condition/quality</li> <li>Uses and non-use</li> <li>Drivers, pressures and threats</li> <li>Response         <ul> <li>Policies, laws</li> <li>Strategies and plans</li> <li>Actions: activities, projects, best practices</li> </ul> </li> </ul>	<ul> <li>Pressures and threats</li> <li>What are the threats and major issues affecting each habitat, and overall coastal and marine ecosystems and environment?</li> <li>What are the drivers of these threats? Or what are the underlying causes?</li> <li>Check out the studies that analyze the Drivers-Pressures-State-Impact-Response</li> <li>Response</li> <li>What policies, programs and actions have been taken by the government?</li> <li>Any partnerships with communities, NGOs, donors and academe/scientists?</li> <li>Provide examples of good practices. What are the outcomes? What are the lessons learned?</li> </ul>
3.3 Rare, threatened and endangered species	<ul> <li>Coastal and marine species, including migratory wild birds</li> <li>Pressures and threats</li> <li>Response</li> </ul>	<ul> <li>List of rare, threatened and endangered marine species</li> <li>Migratory wild birds in mangroves and coastal wetlands</li> <li>Threats faced by these species</li> <li>Response: Policies, laws, plans, projects:         <ul> <li>level of protection being given? What are the outcomes? Is their status improving?</li> </ul> </li> </ul>
3.4 Ecosystem services	Valuation of coastal and marine resources / ecosystem services (in US\$)	<ul> <li>Valuation of ecosystem services         <ul> <li>(provisioning, regulating, supporting, and cultural) – refer to the uses and non-use values of the habitats</li> <li>Describe the socioeconomic benefits; and the direct and indirect contribution to the ocean economy and whole economy</li> </ul> </li> </ul>
3.4 Large marine ecosystems (LMEs)	LMEs (e.g., Arafura-Timor Seas; Sulu-Sulawesi Seas; South China Sea; Yellow Sea; East China Sea; Bay of Bengal)  - location, bordering countries  - area  - significant physical and biological features (bathymetry, distinct oceanography, hydrography, productivity, tropically dependent populations, habitats and species in each LME)  - shared resources  - major threats and transboundary issues  - hotspots with transboundary significance  - response  O Regional Strategic Action Plan or Regional Plan of Action	<ul> <li>Provide a brief description of the location, unique and significant physical and biological features, and ecological and socioeconomic value of each LME. Point out the shared resources.</li> <li>What are the major transboundary issues in each LME? (Refer to the transboundary diagnostic assessment done by UNEP Global International Waters Assessment 2004, and the Transboundary Waters Assessment Project in 2015-2016.)</li> <li>What are the impacts of the drivers, pressures and major transboundary issues on the country (on coastal communities, ecosystems, economy)?</li> <li>What are the emerging issues?</li> <li>What is the response?</li> <li>What are the Strategic Action Programs or Plan of Action made by the country in each LME? Any outcomes and benefits?</li> </ul>

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
	<ul> <li>National Plan of Action:         targets and actions</li> <li>blue economy initiatives (e.g.,         ecotourism, sustainable         fisheries, ocean energy, etc.)</li> </ul>	<ul> <li>Any collaboration or joint actions with other countries?</li> <li>Any best practices, blue economy initiatives and lessons learned?</li> </ul>
4.0 Fisheries and aquaculture	4.1 Fishery resources; fish stocks  4.2 Fisheries production (fish, crustaceans, molluscs, etc.)  - Production – quantity (in metric tons, in 2016; period 2006-2016)  - Production – value (in US\$, 2016; period 2006-2016)  - Major species  o volume of production, by species (in metric tons, in 2016)  o value of production, by species (in metric tons, in 2016)  - Exports	- Capture fisheries production - % share of marine fisheries to total fisheries - % share of marine fisheries to total marine fisheries and aquaculture - Quantity and Value: increase? decrease? Remain the same? - Is there a shift to higher valued species?
	4.3 Aquaculture (fish, crustaceans, molluscs, etc.)  - Production (quantity, in metric tons, in 2016; period 2006-2016)  - Production – value (in US\$, in 2016; period 2006-2016)  - Major species  o volume of production, by species (in metric tons, in 2016)  o value of production, by species (in metric tons, in 2016)  - Exports	Aquaculture fisheries production  - % share of marine aquaculture to total aquaculture  - % share of marine aquaculture to total marine fisheries and aquaculture  - Quantity and Value: increase? decrease? Remain the same?  - Is there a shift to higher valued species?
	4.4 Seaweeds and aquatic plants  - Wild capture:  O Production (quantity, in metric tons, in 2016; period 2006-2016)  O Production (value in US\$, in 2016; period 2006-2016)  - Aquaculture/mariculture:  O Production (quantity, in metric tons, in 2016; period 2006-2016)  O Production (value in US\$, in 2016; period 2006-2016)  - Exports in 2016 (quantity and value)	Seaweeds production  - % share of seaweeds production (wild capture and culture) to total marine fisheries and aquaculture  - Quantity and Value: increase? decrease? Remain the same?
	4.5 Contribution to income and livelihood	Discuss the following: - Revenues from fisheries and aquaculture

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
	<ul> <li>Gross revenues (in US\$, in 2016)</li> <li>GVA (in US\$, in 2016)</li> <li>Number of fishers</li> <li>Employment in fisheries and aquaculture</li> <li>Municipal or community fish landing centers</li> <li>Average income of fisherfolk (in US\$)</li> <li>Poverty incidence among fishers</li> <li>Major Issues</li> </ul>	<ul> <li>Revenues from marine fisheries and aquaculture; GVA of marine fisheries and aquaculture</li> <li>% share of revenues of marine fisheries and aquaculture to total fisheries and aquaculture</li> <li>% share of GVA of marine fisheries and aquaculture to total ocean economy</li> <li>Number of fishers</li> <li>Employment in fisheries and aquaculture</li> <li>Average income of fisherfolk</li> <li>Poverty incidence among fishers</li> <li>Issues (e.g., poverty; lack of access to markets; lack of storage facilities; inadequate support services; no alternative livelihood; etc.)</li> </ul>
	<ul> <li>4.6 Contribution to food security</li> <li>Demand for fish</li> <li>Average consumption of fish</li> <li>Fish as % of animal protein consumption</li> <li>Top species of fish consumed in the country</li> <li>Average price of top species</li> <li>Quality (fish contamination?)</li> <li>Issues (availability, affordability, sustainability, quality and safety of fish)</li> </ul>	Discuss fisheries and its contribution to food security – in terms of fish consumption, availability, affordability, and quality.
	<ul> <li>4.7 Sustainability</li> <li>Fish stocks</li> <li># of fishing vessels</li> <li>Types of fishing vessels and gears</li> <li>Trend in fish production</li> <li>Catch per unit effort (CPUE)</li> <li>Maximum sustainable yield (MSY) and marginal efficiency yield (MEY) for certain species</li> <li>Threats: causes and impacts</li> </ul>	Discuss the following:  Fish stocks: Declining? No change?  How sustainable is the fisheries sector  Threats: IUU fishing (overfishing; destructive fishing); pollution; loss of habitats; etc.  Drivers: underlying causes of these threats  Impacts: declining fish stocks, change in species composition of fish captured; change in fish size of fish captured; fish kills, harmful algal blooms, paralytic shellfish poisoning, heavy metals and microplastics in fish; etc.
	4.8 Pressures and threats  4.9 Response - Policies and laws - Action Plans - Projects; activities undertaken and on-going - Best practices; innovations	Provide a summary of threats and pressures (identified above).  Describe the response to the pressures and threats. Provide examples of good policies, action plans, programs and best practices. Discuss the impacts and benefits. What are the lessons learned?
5.0 Marine and coastal tourism	5.1 Top tourist destinations - major tourist destinations and attractions	Discuss the following:  - What are the major tourist destinations in the country?

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
	5.2 Major tourist destinations and attractions in coastal and marine areas (Provide name, location, description, unique features.)  - sites for coastal and marine recreation, sports and leisure activities  - coastal and marine national parks, and heritage, historical and cultural sites in coastal and marine areas	- Among these tourist destinations and attractions, how many and what percentage is the coastal and marine? What are these coastal and marine tourist destinations? Provide brief description of location, unique or significant features, reasons why tourists visit these places Among the coastal and marine tourist destinations, which ones have been declared as marine parks or heritage sites?  Discuss the following:
	livelihood  total number of tourists, international and local (in 2016)  tourists' average expenditures; average number of days stayed' total tourism revenues  number of tourists in coastal and marine sites (in 2016, period 2006-2016)  marine tourism revenues (in US\$, in 2016, period 2006-2016)  marine tourism revenues to total tourism revenues  GVA of marine tourism (in US\$, in 2016)  share of marine tourism to ocean economy  marine tourism to GDP  marine tourism to GDP	<ul> <li>Total number of tourists, both local and foreign</li> <li>% of foreign tourists; % of local tourists</li> <li>% of tourists going to coastal and marine areas</li> <li>increase? decrease? Remain the same?</li> <li>Marine tourism revenues and GVA</li> <li>% of marine tourism revenues to total tourism revenues: increase? decrease? Remain the same?</li> <li>GVA of marine tourism, and % share of marine tourism to ocean economy increase? decrease? Remain the same?</li> <li>How many people are employed in the tourism sector? What is the % share of marine tourism employment to total employment?</li> </ul>
	S.4 Major issues     Negative impacts of tourism     Factors that would affect tourism	Discuss the negative impacts of coastal and marine tourism (environment and social impacts).  Are there multiple resource use conflicts? What are the drivers and underlying causes?  Discuss also the threats or factors that would
	5.5 Response: - Policies, plans, programs and projects - Best and sustainable practices	affect coastal and marine tourism, and its sustainability.  Describe the response to the pressures and threats. Provide examples of good policies, action plans, programs and best practices. Discuss the impacts and benefits. What are the lessons
	Sustainable marine tourism and best practices  Examples:	learned?  Discuss the following:  - How sustainable is the tourism sector

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
	<ul> <li>Ecotourism</li> <li>Setback zoning for beach areas</li> <li>Tourism and conservation financing</li> <li>MPAs and tourism</li> <li>Sanitation, wastewater, and solid waste management facilities in tourist establishments</li> <li>Reducing water and carbon footprints in tourist establishments</li> <li>Alternative livelihood</li> <li>Other sustainable practices</li> </ul>	<ul> <li>Coastal and marine ecotourism: Provide brief description of these sites (name, location, unique or significant features, what makes them 'ecotourism')</li> <li>How many of the tourism sites and establishments have sanitation, wastewater, and solid waste management facilities or connected to such services?</li> <li>How many of the tourism sites and establishments have water and energy conservation policies and systems?</li> <li>Are there MPAs that are also sites for sustainable tourism? Where, how many, how do they contribute to both ecosystem conservation and tourism?</li> <li>Are there any examples of financing mechanisms established in coastal and marine tourism sites earmarked for conservation? (e.g., users fee, divers fee, environmental user fee, payment for ecosystem services or PES, etc.)</li> <li>What are the benefits and outcomes?</li> <li>What are the challenges and lessons learned?</li> </ul>
6.0 Ports and shipping	Navigational lanes Shipping traffic  6.2 Major Ports: 6.2.1 Name and Location; Port performance indicators in 2016  - Ship calls: domestic; foreign - Cargo throughput (metric tons)	Discuss the following:  - What are the top ports?  - Ship calls: increase? decrease? Remain the same?  - Ship turnaround time: improve? decrease? Remain the same?  - Passenger traffic: increase? decrease? Remain the same?  - Cargo and container throughput: increase? decrease? Remain the same?  - Is there an increase in investments in port development?  - Is there improvement in port operating ratio?
	6.2.2 Contribution to income and livelihood	<ul> <li>Revenues of ports and shipping - increase?</li> <li>decrease? Remain the same?</li> <li>GVA of ports and shipping - increase?</li> <li>decrease? Remain the same?</li> </ul>

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
	<ul> <li>Gross earnings or revenues (in US\$, in 2016, for the period 2006-2016)</li> <li>value of goods passing through the ports (in US\$, in 2016)</li> <li>GVA (in US\$, in 2016)</li> <li>Employment in ports and shipping (in 2016)</li> </ul>	<ul> <li>% share of ports and shipping to total economy or GDP - increase? decrease? Remain the same?</li> <li>% share of ports and shipping to ocean economy</li> <li>How many people are employed in the ports and shipping sector? What is the % share of ports and shipping employment to total employment?</li> </ul>
	6.2.3 Pressures and threats	What are the threats to ports and shipping? (e.g., accidents; natural hazards; piracy; etc.)  What are the threats to the coastal and marine environment and ecosystems from ports and shipping, and the underlying causes? (e.g., operational and accidental oil spills, shipping accidents, solid waste and water pollution in ports and from ships, transport of hazardous and toxic waste, habitat conversion due to port development; alien and invasive species, conflicts with other sectors, emissions of greenhouse gas, etc.)
	6.2.4 Response  - Policies, plans, programs  - Port safety, security, and environment protection  - Best, sustainable practices; innovations	Describe the response to the pressures and threats. Provide examples of good policies, action plans, programs and best practices. Discuss the impacts and benefits. What are the lessons learned?  Are there any of the following in place:  - International Ship and Port Facility Security Code  - Port Safety, Health, and Environmental Management system (PSHEMS) - or equivalent  - Vessel traffic management system  - Oil spill contingency plan  - Green port index - or equivalent  - Ballast water management
	- Location - Volume and value of fish landed - Fishing boats (number, size, capacity, types) - Storage facilities - Access to markets - Investments in fish ports - Employment - Major issues - Response (policies, plans, projects, innovations, best and sustainable practices)	What are the issues affecting fish ports and community fish landing centers?  Describe the response to the issues. Provide examples of good policies, action plans, programs, best practices, and innovations being applied.  Discuss the impacts and benefits. What are the lessons learned?

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
7.0 Other ocean economic	6.4 Marina / ports for recreation and tourism  - Passenger traffic	
activities (if applicable)		
7.1 Offshore oil and gas	<ul> <li>location</li> <li>Production (quantity and value)</li> <li>Contribution to the ocean economy, and to total economy</li> <li>Contribution to livelihood and employment</li> <li>Exports</li> <li>Local demand and consumption</li> <li>Threats: causes and impacts</li> <li>Response (policies, plans, projects, best practices, innovations)</li> </ul>	What is the contribution of offshore oil and gas to the economy?  What are the issues affecting offshore oil and gas? What are the impacts of offshore oil and gas – to the economy, to the environment?  Describe the response to the issues. Provide examples of good policies (e.g., oil spill and waste monitoring and mitigation), action plans, programs and best practices. Discuss the impacts and benefits. What are the lessons learned?
7.2 Ship building	<ul> <li>location of shipyards</li> <li>Production (quantity and value)</li> <li>GVA, Contribution to the ocean economy, and to total economy</li> <li>Contribution to livelihood and employment</li> <li>Threats: causes and impacts</li> <li>Response (policies, plans, projects)</li> </ul>	
7.3 Other major ocean economic activities  Maritime services (finance, insurance, etc.)	Outputs and GVA  - Contribution to the ocean economy, and to total economy  - Contribution to livelihood and employment  - Threats: causes and impacts  - Response (policies, plans, projects)	
8.0 Risks and threats		
8.1 Human activities and environmental damage	<ul> <li>Drivers/Pressures</li> <li>Urbanization and uncontrolled development in coastal and marine areas</li> <li>Conversion and destruction of habitats</li> <li>Land reclamation</li> </ul>	Identify the major risks, threats and pressures on ocean health and ocean economy. For each major threat, examine the drivers and underlying causes, and identify the impacts to the environment, to the people, and to the economy.

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
	- Biodiversity loss: impacts on marine life, fisheries, food web, ecosystem services - Coastal erosion, siltation and sedimentation: Impacts on marine life, ecosystem services, economy - Contaminated fish and seafood: impacts on human health - Declining fish stocks: impacts on food web, human health, ocean economy  • Transboundary issues (in LMEs)	Major transboundary issues in each LME
		(Refer to the reports of the UNEP Global International Waters Assessment (GIWA) in 2004- 2005; UNEP Transboundary Waters Assessment Project (TWAP) in 2015-2016; updated Transboundary Diagnostic Assessment of Sulu- Sulawesi Seas in 2014)
	Environmental costs	Provide estimates of environmental costs. Check available studies and reports.
	<ul> <li>Response</li> <li>Policies, plans and projects</li> <li>Examples of best practices, and their benefits and outcomes</li> </ul>	
8.2 Natural hazards and climate change	<ul> <li>Natural hazards: Typhoons, coastal flooding, storm surge, volcanic eruptions, earthquakes, tsunami (incidence, frequency, etc.)</li> <li>Sea level rise</li> <li>Ocean acidification</li> <li>Effects of hazards on coastal communities and coastal and marine ecosystems</li> <li>Long-term effects of climate change         <ul> <li>on coastal and marine ecosystems (e.g., coral bleaching, fisheries)</li> <li>on blue economy development</li> </ul> </li> </ul>	Provide examples and brief description of natural hazards and threats in the country.  What are the effects of natural hazards on coastal communities and coastal and marine ecosystems?  Check vulnerability assessment studies.  What are the effects of climate change?
	Role of coastal and marine ecosystems	What is the role of coastal and marine ecosystems - in maintaining the health and integrity of coastal and marine ecosystems - shoreline protection, carbon sequestration - reducing climate change threats and impacts
	Economic cost of climate change	Show the cost of climate change. (See ADB, IPCC, and TWAP studies.)
	<ul> <li>Response</li> <li>Policies, plans and projects</li> <li>Examples of best, innovative and sustainable practices</li> </ul>	

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
	<ul> <li>(habitat restoration and protection, MPAs, low impact development, climate resilient infrastructure, green technologies, renewable energy)</li> <li>Climate change mitigation and adaptation measures</li> </ul>	
Part 2. Blue Economy Development	adaptation measures	Why do we need a new model for ocean economy development? Which sectors are critical? What innovations in technologies, infrastructure, governance and practices can drive the shift from traditional ocean economy to blue economy?
9.1 Drivers of future growth, innovations and sustainability	<ul> <li>Examples</li> <li>regulations, standards, and competition;</li> <li>new patterns of global demand and trade;</li> <li>increasing pressure on water, energy and natural resources;</li> <li>supply chain trends and new technologies;</li> <li>climate change mitigation and adaptation;</li> <li>public awareness and changing consumption growth and patterns;</li> <li>capacity development – ensuring the right skills;</li> <li>role of governments, businesses and civil society, and transformational engagement with stakeholders;</li> <li>young entrepreneurs</li> <li>'green' certification</li> </ul>	Discuss those drivers of sustainable growth and innovations in the country that support blue economy development. What are the plans and projects related to the achievement of the SDGs, and SDS-SEA?
9.2 Innovative and sustainable economic activities	Examples - Sustainable tuna fisheries - Sustainable small pelagic fisheries - Climate smart aquaculture - Ecotourism - Green ports	Provide examples of blue economy initiatives. See the response and best, innovative and sustainable practices identified in the previous sections.  For each project or initiative, describe the
9.3 Addressing sustainable development aspects (SDS-SEA and SDGs)		following (1-2 pages per initiative):  - Location of project(s)  - Objectives; scope; issues being addressed;  SDG being achieved  - Major activities undertaken, best practices,
(a) ecosystem and biodiversity conservation	Examples - Mangrove reforestation; rehabilitation of seagrass beds and coral reefs, etc Marine protected areas (MPAs)*, MPA networks, MPA complex - Fish sanctuaries; - marine turtle sanctuaries; etc.	<ul> <li>and outputs produced</li> <li>Supporting policies and institutional arrangements</li> <li>Financing mechanism</li> <li>Innovative technologies applied</li> <li>Stakeholder participation</li> <li>Major outcomes</li> </ul>

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
(b) pollution reduction and	- Solid waste management facilities	- Lessons learned; opportunities for
environmental protection	<ul><li>Wastewater management facilities</li><li>Plastic waste management</li></ul>	replication and scaling up
(c) climate change mitigation	<ul> <li>Agriculture and urban runoff management</li> <li>Reuse (solid waste, wastewater, sludge, plastic)</li> <li>Drainage and stormwater</li> </ul>	*See summary table for blue economy initiatives.
and adaptation	management - Climate-resilient infrastructure - Renewable energy	
9.4 Emerging ocean industries	<ul> <li>Ocean energy (tidal, current, OTEC, etc.)</li> <li>Other marine renewable energy (e.g., coastal and offshore wind power and solar power)</li> <li>Marine biotechnology</li> <li>Desalination</li> <li>Clean Ships manufacturing</li> </ul>	
Part 3: Innovative policies, governance and investment		*For the MPAs, discuss the following (if info is available):  - % of territorial waters under MPAs  - % of target key biodiversity areas under protection  - % of MPAs with effective management  - % of coral reef within the MPAs;  - % of seagrass beds within MPAs;  - % of mangrove area within MPAs  - Increase in fish attributed to MPAs
10. Policies and governance	Policies, legal and regulatory framework (existing/in place, gaps, options) Policies and laws Concerned or mandated agencies for each national policy/law National government budget allocation to support implementation Local government budget allocation other fund sources Staff allocation — national gov't; local gov't  Sustainable development strategies and action plans (progress, gaps, options)	Existing policies and laws; and strategic action plans for:  - Sustainable coastal and ocean management - Coastal and marine ecosystems and biodiversity conservation - Sustainable fisheries - Pollution reduction (oil spills, solid waste, hazardous waste, plastic waste and wastewater management) - Climate change mitigation and adaptation - Sustainable marine tourism - Sustainable/green ports and shipping - Other emerging blue economy industries or sectors - Area-based management: Integrated coastal management (ICM); Marine spatial planning (MSP); Integrated river basin management (IRBM) and water management; MPAs and marine parks

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
		Link with the policies and response measures
		identified in the previous sections.
		*See summary table for policies and governance.
	Supporting mechanisms Research and development (R&D) linked to policy, planning, and other applications Capacity development, technology transfer and knowledge management Alternative mechanisms that create incentives Financing mechanisms and modalities Innovative tools for monitoring and enforcement Marine spatial planning; coastal use planning and zoning Participation mechanisms Public awareness: information-education-communication (IEC), social media, etc. stakeholder participation Relating stakeholders to governance for blue economy development Co-management arrangements  Meeting international commitments (e.g., SDGs, CBD and Aichi biodiversity targets, UNFCCC, Paris Climate Agreement; Ramsar Convention, CITES, IMO Conventions, Convention on the Conservation and Management of Highly Migratory Fish, Plan of Action on IUU fishing, etc.)  Partnerships in ocean stewardship ICM (responsible agency and partners; strategies, action plans and activities; progress; and impacts of implementation and scaling up) Management of LMEs (assessment of progress of Strategic Action Plans; assessment of joint management)	Discuss: International conventions and agreements adopted by the country Actions taken and progress of implementation Any outcomes, benefits? How implementation of international agreements contribute to blue economy development, and achievement of the SDGs What is happening with the ICM sites (e.g., Xiamen, Bali, Sihanoukville, Da Nang, Chonburi, Port Klang, Batangas)? ICM program: progress and impacts of implementation Are there on-going programs and projects in each LME that the country is doing? LMEs: assessment of progress of Strategies and Action Plans and recommendations; assessment of joint management
11. Investment opportunities		Investment opportunities (in fisheries, aquaculture and seaweed industry; ecotourism;
		green ports; renewable energy; solid waste and

Outline (Part/Section) / Topics	Sub-sections / Indicators	Pointers for Analysis
		wastewater management; plastic waste management; etc.).
		Given the current state of ocean health and ocean economy, what investments are needed?
		Given the ocean economy and on-going blue economy initiatives, which sector/activity shows potential for investment?
		What are the investment, business and partnership opportunities for blue economy development?
		What are the enabling conditions to support these blue economy investments?
Summary, conclusion and recommendations		
12.1 Where are we now?	Overall assessment of state of	Summary:
	<ul> <li>ocean economy and ocean health</li> <li>Ocean health index</li> <li>Gaps in policies and plans</li> </ul>	Is the ocean economy growing? Is it sustainable? What are the positive and negative impacts on the economy, ecosystems and environment, and social welfare? What are the key drivers of sustainability?
		What is the state of ocean health? What is the status of coastal and marine ecosystems and resources? What is the status of the marine environment quality? What is the ocean health index (OHI)?
		What are the major pressures and threats?
		What are the gaps in governance and plans?
12.2 Where are we headed?	Overall assessment of blue economy development     Blue economy opportunities for investments and partnerships	Summary: What are the best examples of on-going blue economy initiatives, and their impacts and benefits? What are the major policies and programs undertaken by the government? What is the support from the communities, NGOs, private sector, donors and international organizations?
		What are the investment opportunities in blue
12.3 Recommendations		economy?  Recommend ways to address gaps in policies and plans, and identify the enabling conditions to support blue economy, and the sustainable management of coasts and oceans for all.

# **SUMMARY TABLES**

## 1. OCEAN ECONOMY (US\$, in 2015, in constant prices)

Economic Activity	Outputs (US\$)	Gross Value Added (US\$)	Contribution to GDP (%)	Employment
Fisheries and Aquaculture				
Offshore Oil and Gas				
Mining and quarrying (e.g., minerals)				
Energy/electric supply (ocean energy; coastal and offshore wind energy; etc.)				
Water (desalination; seawater utilization)				
Manufacturing:      Fish and seafood processing     Ship building and repair     Marine transport equipment     Marine biotechnology,     pharmaceuticals,     chemicals     Salt				
Marine construction				
Shipping and ports (marine transportation, ports, warehouses)				
Marine tourism and recreation				
Marine communications (submarine cables)				
Public sector/Government (navy, coast guard, search and rescue, marine environmental protection, etc.)				
Marine education and research				
Marine services (mapping, monitoring, maritime insurance and finance, etc.)				
TOTAL				

#### 2. COASTAL AND MARINE ECOSYSTEMS

(cover: increasing/decreasing/no change) (quality/condition: excellent/good/poor)

Habitat	<b>Area</b> (km²)	Valuation (US\$)	Status	Threats/Issues
Mangroves				
Seagrass				
Coral reefs				
Tidal swamps and marshes				
etc.				
		TOTAL: \$		

Value of ecosystem services (US\$, in millions)	
Marine protected areas (% of territorial waters)	
ICM (% of coastline)	

#### 3. MARINE WATER QUALITY

Parameters	Rating
Dissolved oxygen (DO)	
Nitrates	
Phosphates	
Heavy metals	
Total suspended solids (TSS)	
Coliform	
POPs	

Rating of marine water bodies:

- Excellent: 98-100% of water bodies comply with the water quality criteria and standards, and fully support the intended use or classification of the water body
- **Good**: 75-97% of water bodies partially comply with the water quality standards
- **Fair**: 50-74% of water bodies partially comply with the water quality standards
- Poor: less than 50% of water bodies comply with the water quality criteria and standards, and do not support the intended use or classification of the water body

#### 4. BLUE ECONOMY INITITATIVES

Outline	content
1. Background	<ul> <li>Location</li> <li>Objectives and Rationale; issues being addressed</li> <li>Linkage to SDGs: SDGs being achieved by the project</li> </ul>
2. Brief description of project	Scope     Key activities and outputs
3. Best practices	<ul><li>Innovative and sustainable practices</li><li>New or innovative technologies</li></ul>
4. Enabling conditions	<ul> <li>Supporting policies</li> <li>Institutional arrangements and Partners</li> <li>Stakeholders involvement</li> <li>Financing mechanisms</li> </ul>
5. Conclusion	<ul> <li>Outcomes and benefits of the project</li> <li>Lessons learned</li> <li>Drivers of transformational change, innovation and sustainability</li> <li>Recommendations for replication or scaling up</li> </ul>

#### Examples of initiatives

- Mangrove reforestation
- Coral reef rehabilitation and protection
- Marine protected areas (MPA), MPA networks
- Marine pollution reduction (facilities and management of: wastewater; solid waste; plastic waste; oil spills, etc.)
- Climate change resiliency
- Sustainable fisheries; application of ecosystem approach to fisheries management (EAFM);
   climate-smart aquaculture
- Co-management systems and alternative livelihood for sustainable fisheries and ecosystem conservation
- Renewable energy (ocean energy; offshore and coastal wind power; solar energy)
- Green ports
- Sustainable marine tourism (ecotourism, Green Fins program, green hotels/zero-carbon resorts, etc.)
- Private sector participation; public-private partnerships in ocean management, waste management, etc.
- Conservation financing
- Blue Carbon market

## Example:

Pluo oconomy initiativo	Pollution reduction and wastewater management				
Blue economy initiative					
Location	Metro Manila (west zone), Philippines				
Innovations and best	Selection and application of appropriate technologies for wastewater				
practices	management based on performance indicators				
	Decentralized systems and innovative technologies applied (e.g., sequential batch)				
	reactor, moving bed biofilm reactor, STM aerator, etc.)				
	Reuse of treated wastewater, and treated sludge as soil conditioner/fertilizer				
Benefits and outcomes	Increasing coverage; Achieved cost-effective options for wastewater management resulting in lower capital, and operating and maintenance (O&M) costs				
Supporting policies and	Policies and laws: Clean Water Act; Water Code; Sanitation Code				
institutional arrangements	Institutional arrangements:				
	<ul> <li>Concession agreement: Maynilad Water Services, Inc. is tasked to provide water supply, sewerage and sanitation services in the West Zone area (western part of Metro Manila and parts of the provinces of Cavite and Bulacan).</li> <li>Metropolitan Waterworks and Sewerage System (MWSS) Regulatory Office: monitors water quality and supply; and handles the water tariffs</li> <li>Department of Environment and Natural Resources (DENR) and the Laguna Lake Development Authority (LLDA): provide wastewater standards for treatment operation and facilities.</li> <li>Financing: Water tariffs include environment charge for cost recovery of investments in sewerage and wastewater treatment systems</li> </ul>				
SDGs being achieved	SDG 6 (clean water and sanitation); SDG 12 (sustainable consumption and				
	production); SDG 14 (life under water)				

# 5. POLICIES AND GOVERNANCE (examples provided)

	Ocean and coastal management	Fisheries	Marine tourism	Ports and shipping	Emerging blue economy industries	Coastal and marine ecosystems and biodiversity conservation	Pollution reduction			Climate change adaptation and mitigation	
							Solid waste and hazardous waste	Sanitation, Wastewater & nutrients	Plastic waste	Sea-based pollution	
International agreements adopted	SDGs (SDG 14); UN Convention on the Law of the Seas (UNCLOS)	Convention on the Conservation and Management of Highly Migratory Fish     Port Measures to address IUU fishing (FAO)	•	• MARPOL • SOLAS	•	CBD and Aichi biodiversity targets Ramsar Convention CITES	Minimata     Basel	• SDGs	•	MARPOL     London     Convention     Ballast     Water     Management	<ul> <li>UNFCCC;</li> <li>Paris     Climate     Agreement</li> <li>Kyoto     Protocol</li> </ul>
National policies and laws	Ocean Policy	• Fisheries Law	•	•	•	•	Solid Waste Management Law; Toxic and Hazardous Waste Management Law	Clean Water Act; Wastewater management Law	•	•	•
Strategic Action plans	•	Plan of     Action on     IUU fishing	Ecotourism Strategy	•	•	•	Solid Waste Management Plan	Urban     Sanitation     National     wastewater     and septage     management     program	Plan of Action on Plastic Waste	•	•
Mandated gov't agencies	•	•	•	•	•	•	•	•	•	•	•
Gov't budget allocation	•	•	•	•	•	•	•	•	•	•	•

(Yes/None;											
Increasing/											
Decreasing/											
Remain the											
same)											
Other	•	•	•	•	•	•	•	•	•	•	•
funding			•	•	•	•		•	,	•	•
sources											
Staff	•	•	•	•	•	•	•	•	•	•	•
allocation											
and capacity											
dev't											
(Yes/None;											
Adequate											
training and											
support for											
capacity											
development;											
Increasing/											
Decreasing/											
Remain the											
same)											
Targeted	•	•	•	•	•	•	•	•	•	•	•
research			-	_		-					
and											
development											
Public	_	_	_	_	_		_	_	_	_	_
	•	•	•	•	•	•	•	•	•	•	•
awareness;											
Stakeholder											
participation											
Inter-agency	•	•	•	•	•	•	•	•	•	•	•
coordination											
mechanism											
Partnerships	•	•	•	•	•	•	•	•	•	•	•
(with donors,											
int'l financial											
institutions,											
NGOs, etc.)											

### **SUMMARY: State of Oceans and Coasts**

State of ocean economy Ocean economy - GVA; - contribution to GDP Fisheries and aquaculture - Output; GVA Tourism - No. of tourists - GVA Ports and shipping - Passenger volume - Cargo and container throughput volume	REASING (↑) / REASING (↓) / CHANGE (-) ↑, ↓, -	(a) key policies/laws; (b) national action plan	Provide example of best	challenges
economy Ocean economy - GVA; - contribution to GDP Fisheries and aquaculture - Output; GVA Tourism - No. of tourists - GVA Ports and shipping - Passenger volume - Cargo and container throughput volume	↑ ↓ -	·	practice or blue economy initiative	top 3 issues
Ocean economy - GVA; - contribution to GDP  Fisheries and aquaculture - Output; GVA  Tourism - No. of tourists - GVA  Ports and shipping - Passenger volume - Cargo and container throughput volume	1) 💜)			
- GVA; - contribution to GDP  Fisheries and aquaculture - Output; GVA  Tourism - No. of tourists - GVA  Ports and shipping - Passenger volume - Cargo and container throughput volume				
- Output; GVA  Tourism - No. of tourists - GVA  Ports and shipping - Passenger volume - Cargo and container throughput volume				
<ul> <li>No. of tourists</li> <li>GVA</li> <li>Ports and shipping</li> <li>Passenger volume</li> <li>Cargo and container throughput volume</li> </ul>				
<ul><li>Passenger volume</li><li>Cargo and container throughput volume</li></ul>				
- GVA				
Offshore oil and gas - Output; GVA				
Employment in ocean economy				
Mainstreaming of valuation of ecosystem services; natural capital				
accounting				
State of ocean health	↑, ↓, -			
Fish stocks				
Catch per unit effort				
Mangroves - area; cover				
- condition				
Coral reefs - area; cover - condition				
Seagrass beds - area; cover - condition				
Beach				
- area; condition - Beach forest cover				
Tidal swamps, mudflats, - area; cover - condition				
Prevention of extinction of known threatened species				

_			T
Marine water quality			
- DO			
- N			
- P			
- TSS, TDS			
- Heavy metals			
- POPs, PTS			
- microplastics			
- etc.			
Marine protected areas			
(% of territorial waters)			
Pressures and threats	↑, ↓, -		
	Ι, Ψ,		
Population growth in the			
coastal areas			
IUU fishing			
Habitat conversion and			
destruction; reclamation			
Coastal erosion and			
sedimentation			
Wastewater (untreated)			
discharge			
Solid waste generation			
and dumping			
Plastic waste generation			
and marine debris			
Oil spills			
Greenhouse gas			
emissions			
Population with access to sanitation and			
wastewater management			
systems			
Population covered by			
solid waste management			
services			
Tourist establishments			
with habitat, solid waste			
and wastewater			
management			
Ports and ships with			
environmental			
management systems			
Waste management in			
offshore oil and gas			
Natural hazards and			
climate change			
Sea level rise			
Coral bleaching			
Storms, typhoons, heavy			
rains, storm surge,			
flooding			
- 0		1	1