

1st Meeting of RWG-M

**Scaling up Sustainable Mariculture in the YS:
Project Outcomes, Targets, Activities and Budget for
Activities in 2017**

Secretariat

Rongcheng, 26-27 October 2017

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I Project Overview


II Outcomes, Targets, Activities in relation to Sustainable Mariculture


In line with the IWC International Waters (IW) strategic priorities, GEF will assist the countries reach an agreement on ecosystem-based joint action for the sustainable management of the Yellow Sea Large Marine Ecosystem, and to catalyse institutional reforms and support the implementation of policies aimed at reducing over-fishing and benefiting communities. There are four components of the project: 1) sustainable national and regional cooperation for ecosystem based management; 2) improved Ecosystem Carrying Capacity with respect to provisioning services; 3) improved Ecosystem Carrying Capacity with respect to regulating and cultural services; 4) improved Ecosystem Carrying Capacity with respect to supporting services.

The key outcomes sought are: 1) establishment of a self-sustaining cooperative mechanism for ecosystem-based management; 2) recovery of depleted fish stocks and improved mariculture production and quality; 3) improved ecosystem health; 4) improved inter-sectoral coordination and mainstreaming of ecosystem based management principles at the national level, maintenance of habitat areas, strengthened stakeholder participation in management and improved policy making; and 4) skills and capacity significantly developed for region-wide ecosystem-based management.

Programme Period:	2014-2017	Total resources required	233,044,196
Atlas Award ID:	00074724	Total allocated resources:	233,044,196
Project ID:	00087001	GEF	7,562,430
PIMS #	4552	UNDP	1,692,000
Start date:	January 2014	Other:	
End Date:	December 2017	○ Government in cash	26,785,812
Management Arrangements : Agency execution (UNOPS)		○ Government in-kind	195,203,954
PAC Meeting Date :	TBD	○ Other	1,800,000

Agreed by (Government):  _____  2014.1.23
Date/Month/Year

Agreed by (Executing Entity/Implementing Partner): 3.7.2014 _____ 
Date/Month/Year Mimi Noel Vazquez
LPSO Director/UNOPS

Agreed by (UNDP): 11.7.2014 _____ 
Date/Month/Year

Project Snapshot

Programme Period	2014-2018 (extension anticipated)
Total allocated resources:	US\$ 233,044,196
GEF	US\$ 7,562,430
UNDP	US\$ 1,692,000
Other:	
○ Government in cash	US\$ 26,785,812
○ Government in-kind	US\$ 195,203,954
○ Other	US\$ 1,800,000
Executing Entity/Implementing Partner	UNOPS

Objectives of YSLME Phase II Project

Project Title: UNDP/GEF Implementing the Strategic Action Programme for the Yellow Sea Large Marine Ecosystem: Restoring the Ecosystem Goods and Services and Consolidation of A Long-term Regional Environmental Governance Framework

“to achieve adaptive ecosystem-based management of the Yellow Sea Large Marine Ecosystem bordered by China, RO Korea and DPR Korea by fostering long-term sustainable institutional, policy and financial arrangements in accordance with the YSLME Strategic Action Programme”

Component 1: Ensuring sustainable regional and national cooperation for ecosystem based management, based on strengthened institutional structures and improved knowledge for decision making

- Regional governance structure YSLME Commission established and functional
- Improved inter-sectoral coordination and collaboration at the national level
- Improved compliance with regional and international treaties, agreements and guidelines
- Sustainable financing for regional collaboration on ecosystem-based management
- Wider participation in SAP implementation through strengthened Yellow Sea Partnership

Component 2: Improving Ecosystem Carrying Capacity with respect to Provisioning Services

- Recovery of depleted fish stocks as shown by increasing mean trophic level
- Enhanced fish stocks through re-stocking and habitat improvement
- Enhanced and sustainable mariculture production by increasing production per unit area as means to ease pressure on capture fisheries

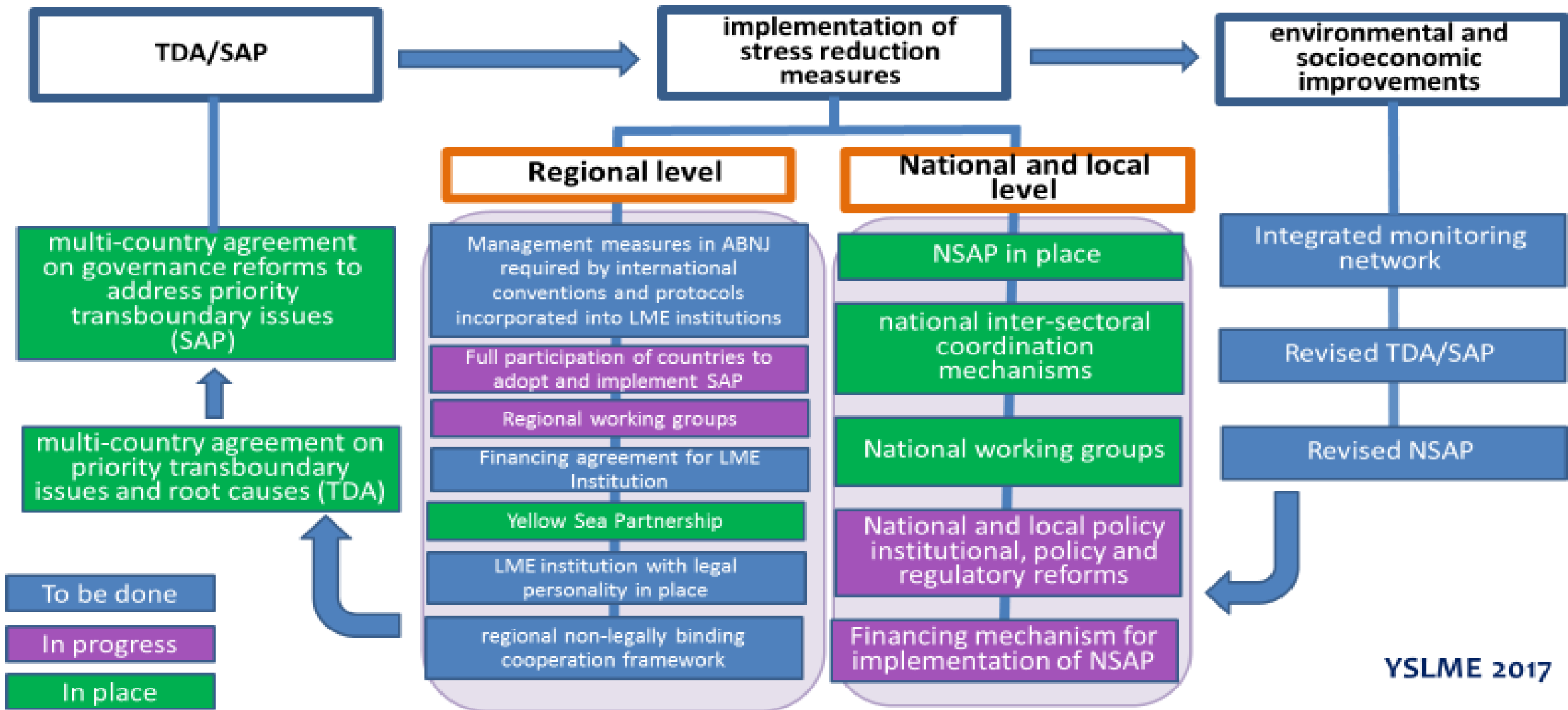
Component 3: Improving Ecosystem Carrying Capacity with respect to Regulating and Cultural Services

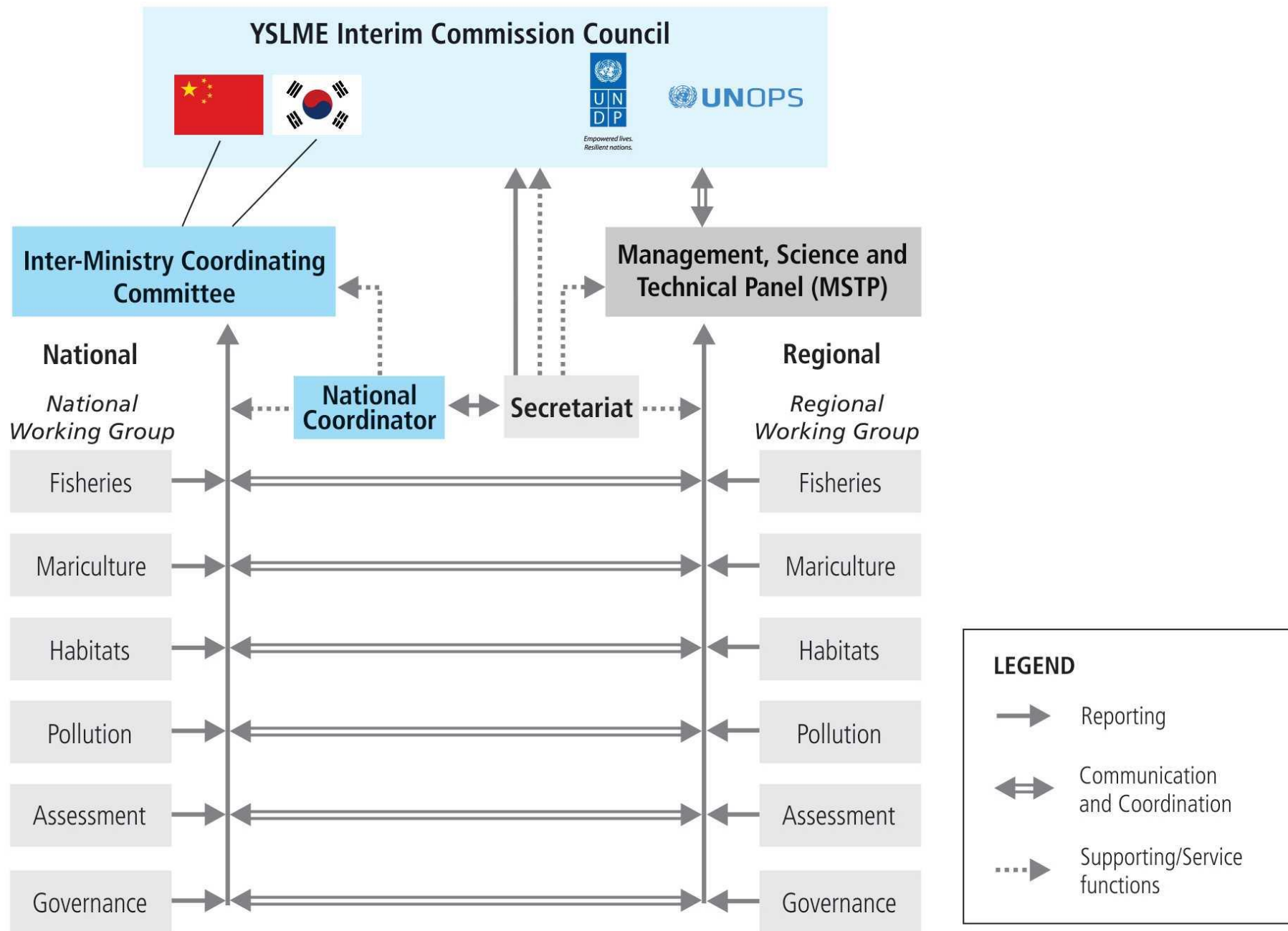
- Strengthened legal and regulatory processes to control pollution
- Ecosystem health improved through reduction in pollutant discharge from land-based sources
- Marine litter controlled at selected locations
- Demonstration of pollution-reduction techniques and replication

Component 4: Improving Ecosystem Carrying Capacity with respect to Supporting Services

- Adaptive Management mainstreamed to enhance the resilience of the YSLME and reduce the vulnerability of coastal communities to climate change impacts on ecosystem processes
- Application of Ecosystem-based Community Management (EBCM) in preparing risk management plans to address climate variability and coastal disasters
- Maintenance of current habitats and the monitoring and mitigation of the impact of reclamation
- MPA Network strengthened in the Yellow Sea

Institutional, Policy and Financing Framework of YLLME





Management Measures at Regional Level

Strategies:

1. Update of YSLME SAP
2. Regional Strategy to Use Wetland as Nutrient Sinks
3. Regional Adaptive Management Strategy to Climate Change

Standards, Criteria and Guidelines:

1. Guidelines for Strengthening Yellow Sea Partnership
2. Regional Methodologies for Assessment of Fish Stocks
3. IMTA Standards and Certification Scheme (GAP)
4. agreed pollution monitoring guideline and monitoring network and harmonized methodologies
5. Mechanisms for data and information sharing
6. Guidelines for assessing impact and effectiveness of coastal and marine ecosystem restoration projects
7. Guidelines for monitoring and evaluation of microplastics
8. Regional guidelines to implement FAO Code of Conduct for Responsible Fisheries

Program and Plans:

1. YSLME Biodiversity Conservation Plan
2. Jellyfish Monitoring Program
3. HAB Monitoring Program
4. YSLME MPA Network
5. Small Grant Program
6. Long-term YSLME Ecosystem Monitoring Program
7. Awareness Raising and Communication Plan

Fisheries and Mariculture:

1. Sustainable livelihoods development for fishermen joining fishing vessels buyback scheme
2. Seagrass and macroalgae restoration
3. **Integrated Multitropic aquaculture (Zhangzidao-Dalian, Rongcheng-Weihai and Haiyang)**

Biodiversity conservation and ecosystem assessment:

1. Expanding MPA coverage (Xiaoyangkou, Dandong, etc)
2. MPA Management effectiveness
3. Monitoring of N:P:Si rate change

Pollutions reduction:

1. TPL in hotspots areas (Rushan)
2. Sewage treatment using wetland regulatory services as nutrient sinks
3. Legislation and economic instruments to promote investment in marine litter reduction

Climate Change adaptation:

1. Development of climate change adaptation model framework plan and integration into ICM framework in two coastal cities or provinces

Modular Assessments for Sustainable Development



PRODUCTIVITY MODULE INDICATORS

Photosynthetic activity
Zooplankton biodiversity
Oceanographic variability
Zooplankton biomass
Ichthyoplankton biodiversity



POLLUTION & ECOSYSTEM HEALTH MODULE INDICATORS

Eutrophication
Biotoxins
Pathology
Emerging disease
Health indices
Multiple marine ecological disturbances



SOCIOECONOMIC MODULE INDICATORS

Integrated assessments
Human forcing
Sustainability of long-term socioeconomic benefits



FISH & FISHERIES MODULE INDICATORS

Biodiversity
Finfish
Shellfish
Demersal species
Pelagic species



GOVERNANCE MODULE INDICATORS

Stakeholder participation
Adaptive management

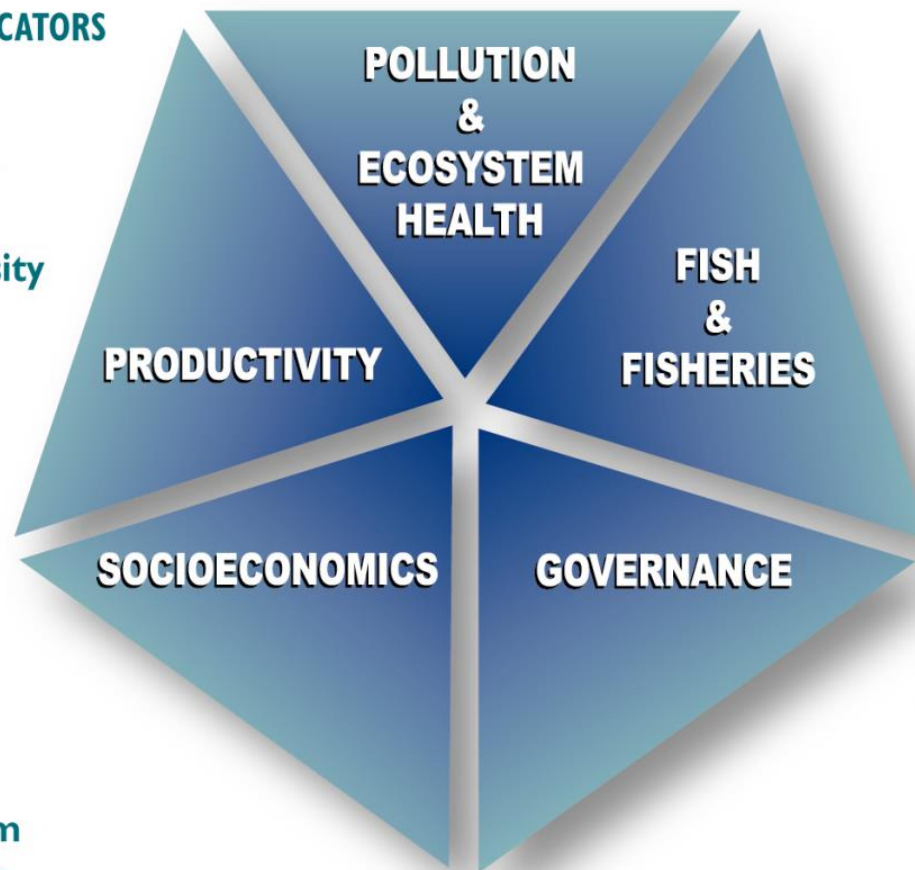


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I Project Overall Review

II Outcomes, Targets, Activities in relation to Sustainable Mariculture

Component 2: Improving Ecosystem Carrying Capacity with respect to Provisioning Services

OUTCOME 2.3: Enhanced and sustainable mariculture production, by increasing production per unit area as means to ease pressure on capture fisheries

end of project target:

- 1) 5% reduction of contaminants from mariculture in demo sites;
- 2) 10% increase in production per unit area;
- 3) 5% reduction of nutrients and other discharges from mariculture installations

2007 targets:

- 1) suitable areas for IMTA mapped and environmental and social economic benefits assessed;
- 2) IMTA training module prepared;

Component 2: Improving Ecosystem Carrying Capacity with respect to Provisioning Services

OUTCOME 2.3: Enhanced and sustainable mariculture production, by increasing production per unit area as means to ease pressure on capture fisheries

2018 targets:

- 1) regional guidelines of *sustainable mariculture* developed and adopted;
- 2) GAP for IMTA developed;
- 3) *national plan to promote IMTA* developed and adopted;
- 4) IMTA training conducted in collaboration with IW:Learn;
- 5) IMTA system in three demonstration sites constructed and monitoring equipment generate first reports;
- 6) international conference in sustainable mariculture conducted and proceeding published;

Output 2.3.1 Widespread practice of sustainable mariculture, where appropriate, increasing productivity and reducing pollution.

PLANNED ACTIVITIES	TIMEFRAME											
	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 1. Develop regional guidelines for IMTA, including nutrient reduction and disease diagnosis, prevention and warning			■	■	■	■						
Activity 2. study visit to improve capacity in disease diagnoses:				■								
Activity 3: Develop GAP for IMTA				■	■	■	■	■	■	■	■	
Activity 4: survey of coastal areas suitable for operation of IMTA, and economic analysis of benefits for replication of IMTA across YSLME and China					■	■	■					
Activity 5. Develop national plan to promote IMTA							■	■				
Activity 6. implement national strategy to increase public awareness of benefits of ecosystem-based fishery management and IMTA					■	■				■	■	

Output 2.3.2 Adoption of integrated multi-trophic aquaculture (IMTA) where appropriate

PLANNED ACTIVITIES	TIMEFRAME											
	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 1. prepare an IMTA training module		■	■	■								
Activity 2: Conduct IMTA training workshop in collaboration with IW:Learn					■	■						
Activity 3: support to demonstrate IMTA in three sites		■	■	■	■	■	■	■	■	■	■	
Activity 4. knowledge sharing on IMTA and replication elsewhere						■	■			■	■	

Yellow Sea:

- Sea of Friendship
- Sea of Peace
- Sea of Cooperation
- Sea of Prosperity

Thank you!