Introduction of the experience from YSLME on marine litter management

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4 June 2018
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
Project Component and Outcomes

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

TDA/SAP
- Multi-country agreement on governance reforms to address priority transboundary issues (SAP)
- Multi-country agreement on priority transboundary issues and root causes (TDA)

Implementation of stress reduction measures
- Regional level
  - Management measures in ABNJ required by international conventions and protocols incorporated into LME institutions
  - Full participation of countries to adopt and implement SAP
  - Regional working groups
  - Financing agreement for LME Institution
  - Yellow Sea Partnership
  - LME institution with legal personality in place
  - Regional non-legally binding cooperation framework

- National and local level
  - NSAP in place
  - National inter-sectoral coordination mechanisms
  - National working groups
  - National and local policy institutional, policy and regulatory reforms
  - Financing mechanism for implementation of NSAP

Enforcement and socioeconomic improvements
- Integrated monitoring network
- Revised TDA/SAP
- Revised NSAP
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:
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
Opportunities for Convergence in Demonstration and Assessments

Fisheries and Mariculture:

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

Pollutions reduction:

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

Biodiversity conservation and ecosystem assessment:

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

Climate Change adaptation:

1. Development of climate change adaptation model framework plan and integration into ICM framework in two coastal cities or provinces
EASC 6: Workshop on Achieving SDG 14

Supports and advances the implementation of SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 Pollution reduction
14.2 Areas under ecosystem-based approach
14.3 Ocean acidification (blue carbon)
14.4 Sustainable fisheries/end IUU
14.5 Marine Protected Areas
14.a Increase scientific knowledge
14.c Implement international ocean law

The project also contributes to the achievements of other SDGs:
Component 3: Improving Ecosystem Carrying Capacity with respect to Regulating and Cultural Services

OUTCOME 3.1 Ecosystem health improved through a reduction in pollutant discharge (e.g. nutrients) from land-based sources

End of Project Target:

1) agreed pollution monitoring guideline and monitoring network and harmonized methodologies;
2) agreement on data and information sharing mechanisms between China and RO Korea, and between YSLME Project and other organizations
3) investment secured for demonstration in reduction of inorganic nitrogen, phosphate, faecal substances, heavy metals and POPs from investment projects (2 in China and 2 in RO Korea);
4) 10% reduction in N discharge during project cycle (2014-2019)
Component 3: Improving Ecosystem Carrying Capacity with respect to Regulating and Cultural Services

OUTCOME 3.1 Ecosystem health improved through a reduction in pollutant discharge (e.g. nutrients) from land-based sources

targets:
1) loading reports of two demo sites
2) review report of nutrient reduction technologies and investment modalities
3) agreement on sharing of data and information on atm-based, sea-based and agriculture-based pollutants

targets:
1) conduct of a training workshop to improve knowledge of PPP as a performance-based partnership framework by stakeholders of demo sites
2) at least one PPP project is at the stage of bidding by pilot local government
3) economic analysis of pollution reduction is used by pilot local governments in investment decision making
Component 3: Improving Ecosystem Carrying Capacity with respect to Regulating and Cultural Services

OUTCOME 3.2 Wider application of pollution-reduction techniques piloted at demonstration sites

End of project target:
1) 3 nutrient reduction demonstration projects invested by 3 local governments using wetland regulating services;

Target:
1) MOU signed between UNOPS and three cities/sites
2) Synthesis report of good practices of using wetland regulating services to rehabilitate river basin and coastal environments
3) Increased knowledge in use of regulating services of wetland habitats by planners and investors in demonstration sites;
OUTCOME 3.2 Wider application of pollution-reduction techniques piloted at demonstration sites

targets:
1) regional strategy for using wetlands as nutrient sinks, wildlife habitat and adaptation measures to climate change impact;
2) one study visit facilitated for increased knowledge in use of regulating services of wetland habitats by planners and investors in demonstration sites;
3) construction of wetland habitat in one demonstration site completed and initiated in two replication sites.
OUTCOME 3.3 Strengthened legal and regulatory processes to control pollution

End of project target:
1) agreed guidelines for microplastics monitoring and assessment by China and RO Korea;
2) new financial and economic incentives and regulatory measures adopted in coastal cities in support of recycling economy
3) number of new provincial regulations to improve water quality in Shandong, Jiangsu and Liaoning provinces
4) new economically profitable business developed from waste reuse and recycling
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OUTCOME 3.3 Strengthened legal and regulatory processes to control pollution

target
1) waste management policy and good practices review report drafted;
2) waste reduction, reuse and recovery technologies review report drafted;

targets
1) workshop on microplastics organized;
2) regulatory measures feasibility study report and economic analysis of market potential published;
3) waste recycling and reuse projects initiated.
Component 3: Improving Ecosystem Carrying Capacity with respect to Regulating and Cultural Services

OUTCOME 3.4 Marine litter controlled at selected locations

end of project target:

1) Regional Guidelines on control of marine litter based on those initiated by NOWPAP produced and adopted for use in Yellow Sea;

2) Established regional database in the first year, and significant reduction in the quantities of marine litter at selected beach locations
Component 3: Improving Ecosystem Carrying Capacity with respect to Regulating and Cultural Services

OUTCOME 3.4 Marine litter controlled at selected locations

targets:
1) report on marine litter status in coastal areas of YS published
2) warning system designed and in use in pilot site
3) one awareness program of marine litter conducted in pilot sites;
4) demonstration sites/projects/stakeholder group selected and program designed

targets:
1) improved knowledge base of marine litter status in YSLME;
2) demonstration projects initiated with support of enabling policies and regulatory measures
Component 4: Improving Ecosystem Carrying Capacity with respect to Supporting Services

OUTCOME 4.4 Application of ecosystem-based community management (EBCM) preparing risk management plans to address climate variability and coastal disasters

End of project targets:

1) improved awareness, knowledge, participation and preparedness to impact of climate change at community levels in YSLME region;

2) agreed number of cruises and parameters for the regional monitoring network established and data shared regionally via the project website;

3) regular LME-wide assessments; enhanced information exchange; periodic scenarios of ecosystem change;

4) 4 training modules prepared for increased knowledge base and critical mass of expertise on EBM for dissemination and transfer at local levels;
Component 4: Improving Ecosystem Carrying Capacity with respect to Supporting Services

OUTCOME 4.4 Application of ecosystem-based community management (EBCM) preparing risk management plans to address climate variability and coastal disasters

targets:
1) SGP launched and first group of projects awarded;
2) regional strategies for ecosystem forecast, modelling and scenario analysis agreed;
3) YSLME EBM training modules agreed and under preparation by joint task forces as a compliment to initiatives of IW:Learn

targets:
1) data products generated from regional monitoring shared via project website;
2) through project support increased number of NGOs and community-based organizations to participate in climate change adaptation initiatives at community level;
3) at least 4 EBM training modules are produced;
Activity 7: Prepare 4 training modules on ecosystem-based management in LME:

1) ecosystem carrying capacity - fish restocking
2) ecosystem carrying capacity – IMTA
3) ecosystem carrying capacity: MPA networking
4) synergizing implementation of environmental treaties and agreements using EBM approach in LME
Yellow Sea:

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

Thank you!