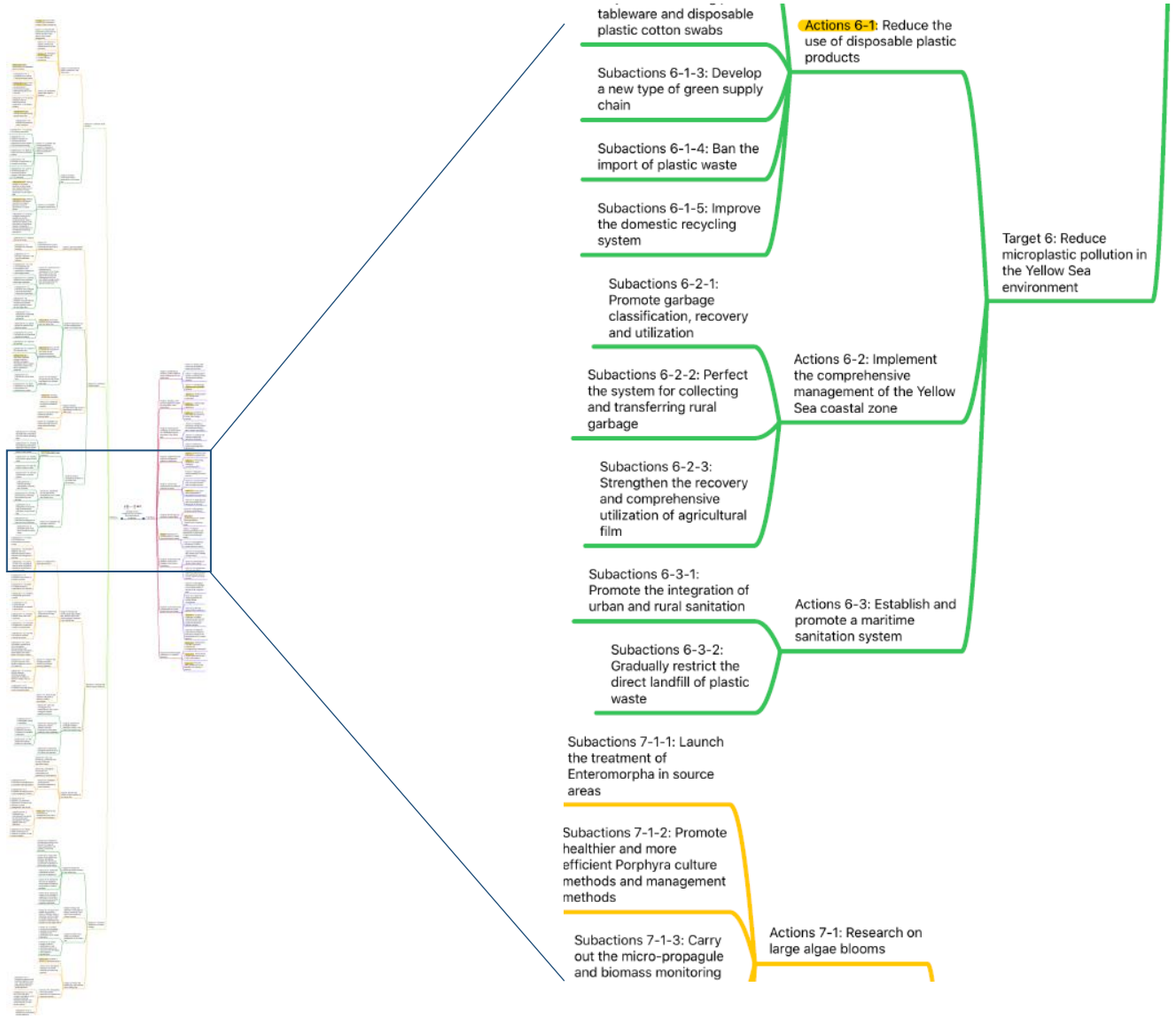
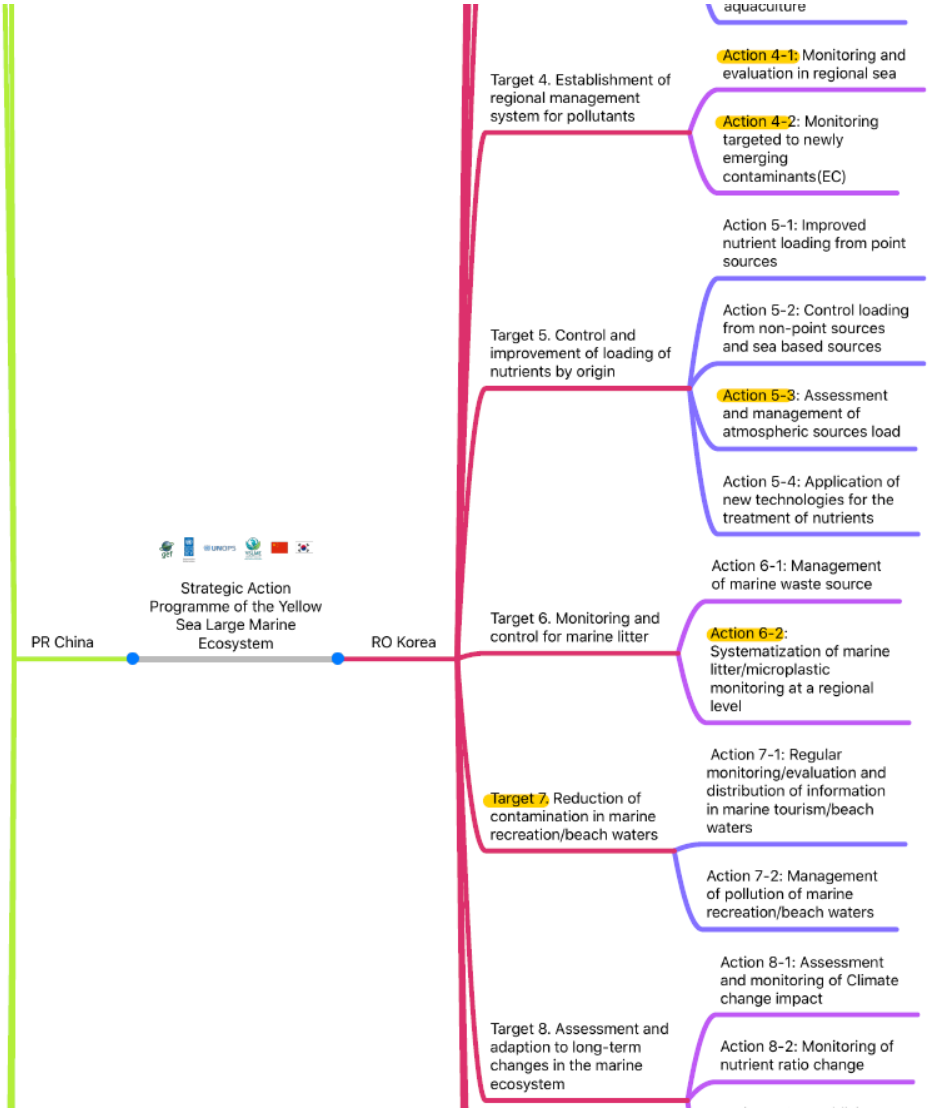
# Developing Targets and Management Actions for the Regional SAP

*Targets and Actions from National SAP documents were mapped*



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*Draft targets and management actions were selected from both documents which addressed ecosystem goals and could be applied at the regional level*

~~End of May~~ Early July Revision – All Existing Management Actions

Protect ~~Human Health~~ the Marine Environment

**4. Reduce discharges of nutrients and contaminants**

- MA 4.1 Decrease point source loading of nutrients from sewage discharge ~~through sewage treatment upgrades~~
- MA 4.2 Decrease non-point sources by managing watersheds ~~loading of nutrients by improving agricultural practices~~
- MA 4.3 Decrease the impact of point and non-point sources of pollution through ecologically based approaches
- ~~MA 4.4 Develop a regionally harmonized approach for calculating allowable discharge of pollutants~~
- MA 4.4 Strengthen the prevention and control of pollution from harbors and ships
- MA 4.5 Assess and manage atmospheric source pollutant loads
- MA 4.6 Implement harmonized monitoring targeted to nutrients from land-based, aquaculture-based, and atmospheric sources, and newly emerging contaminants

## PRC

| | | |
|---|---|---|
| ***Target 4. Reduce pollutant input into the Yellow Sea*** | | |
| 4-1 | Implement the comprehensive management of the Yellow Sea coastal zones, and reduce the number and discharged amount of land-based sewage outlets that discharge pollutants directly into the sea | |
| | 4-1-1 | Carry out comprehensive investigations and registration of release-to-sea sewage outlets |
| | 4-1-2 | Strictly implement the pollutant discharge standards |
| | 4-1-3 | Research the ecological environmental effect threshold of pollutants |
| | 4-1-4 | Establish a comprehensive marine environmental quality standard system for the Yellow Sea |
| 4-2 | Continually improve the rivers flowing into the Yellow Sea | |
| | 4-2-1 | Calculate the allowable discharge of pollutants |
| | 4-2-2 | Define phased-in pollution load reduction goals |
| | 4-2-3 | Put forward the list of feasible regulation projects |

| SAP | National MA |
|---|---|
| 4.1 | PRC 4-1, ROK 5-1 |
| 4.2 | ROK 5-2 partially? |
| 4.3 | Review other targets |
| 4.4 | ~~PRC 4-2-1~~ |
| 4.5 | ROK 5-3 |
| 4.6 | ROK 5-3 |
| 4.7 | ROK 4-2 |

Notes:

- Think about focusing more on sectors of pollution air, sea-based, etc.

~~Maintain~~ **Protect** human health (4.2)

Process indicator:

1. Level of reduction in the use of drugs in mariculture **(~~4.2.1~~ MA 5.2)**
2. Percentage of mariculture enterprises complying with national mariculture drug use standards **(~~4.2.1~~ MA 5.2)**
3. Level of reduction of discharge of TN and TP by target industries **(~~4.2.2~~ MA 4.1)**
4. Availability of comprehensive marine environment quality standards **(~~4.2.2~~ MA 4.1)**
5. Percentage of rivers in Yellow Sea with TPL targets and nutrient reduction measures in place **(~~4.2.2~~ MA 4.1)**
6. collection rate of ship-based oil-contaminated water and chemical-based tank washing water **(~~4.2.2~~ MA 4.4)**
7. Fertilizer use efficiency **has improved x percent over baseline in ten years (~~4.2.2~~ MA 4.3)**
8. Areas of restored and artificial wetland **(~~4.2.3~~ MA 4.3)**
9. Density of beach litter **(~~4.2.4~~ MA 6.3)**
10. Density of flowing marine litter **(~~4.2.4~~ MA 6.3)**

~~Performance~~ **Environmental Status** indicator:

1. Vegetation structure of restored wetland (4.2.3)
2. Areas and frequency of HAB outbreak (4.2.3)
3. Weight of garbage in kilograms collected in coastal areas and beach sites **(~~4.2.4~~ MA 6.1)**

## ROK

| | |
|---|---|
| ***Target 4. Establish regional management system for pollutants*** | |
| 4-1 | Monitoring and evaluation in regional sea |
| 4-2 | Monitoring targeted to newly emerging contaminants (EC) |
| ***Target 5. Control and improvement of loading of nutrients by origin*** | |
| 5-1 | Improved nutrient loading from point sources |
| 5-2 | Control loading from non-point sources and sea-based sources |
| 5-3 | Assessment and management of atmospheric sources loads |
| 5-4 | Application of new technologies for the treatment of nutrients |

| | |
|---|---|
| ***Target 7. Reduce contamination in marine recreation / beach waters*** | |
| 7-1 | Routine monitoring / evaluation and distribution of information in marine tourism / beach waters |
| 7-2 | Management of pollution of marine recreation / beach waters |

# Developing Targets and Management Actions for the Regional SAP

*Targets and management actions were reviewed and edited by NWGs.*

## Goal 1. Ensure Sustainable Fisheries and Aquaculture

**Target 1: Create and Maintain a Sustainable Capture Fishery**

1.1 Improve the management system for fishery conservation areas
1.2 Reduce fishing activity
1.3 Build a TAC joint management system for fish stocks (ROK)
1.4 Establish certification for responsible capture fishery practices
1.5 Implement sustainable dynamic biological resource management

**Target 2: Develop a Sustainable and Economically Robust Marine Aquaculture Industry**

2.1 Adopt ecological aquaculture models
2.2 Reduce impacts of nutrients, pathogens, residual feeds, and antibiotics in marine aquaculture
2.3 Establish certification for responsible marine aquaculture practices

**Target 3: Build Social Safeguards into Development of a Sustainable Marine Food Supply**

3.1 Create investment incentives for sustainable fishing and aquaculture practices
3.2 Retrain fishermen for alternative livelihoods

## Goal 2. Protect the Marine Environment

**Target 4: Reduce Discharges of Nutrients and Contaminants**

4.1 Reduce the impact of nutrients pollution from land-based activities (including point and non-point sources)
4.2 Strengthen the prevention and control of pollution from maritime activities

**Target 5: Reduce Exposure to Pathogens and Toxics in the Marine Environment**

5.1 Implement regional monitoring of newly emerging contaminants
5.2 Develop monitoring and early warning systems of pathogens and toxins for public bathing waters (beaches)

**Target 6: Control and Manage Marine Litter and Microplastics**

6.1 Improve the management of domestic and agricultural solid waste
6.2 Proper management (recycling/reuse/disposal) of used fishing nets and gears and develop alternatives for disposable plastics
6.3 Regional monitoring of marine litter and microplastics in the YSLME
6.4 Organize public awareness and cleanup campaigns for public beaches

## Goal 3. Improve Ecosystem Resilience

**Target 7: Assess and Adapt to Long Term Changes in the Marine Ecosystem**

7.1 Monitor and assess long-term changes in marine ecosystem
7.2 Develop regional strategies for ecosystem management under predicted climate change scenarios

**Target 8: Conserve and Improve Biodiversity and Habitats**

8.1 Strengthen MPA networks for endangered migratory mammals and
8.2 Strengthen protection and restoration of coastal wetlands, spawning grounds, and migratory routes

**Target 9: Prevent and Reduce Marine Disasters**

9.1 Improve early warning, monitoring, and assessment capabilities for harmful organism blooms
9.2 Prevent the occurrence of macroalgae blooms through ecosystem management
9.3 Establish an ecological disaster reduction system in the Yellow Sea coastal zone

**Target 10: Control and Prevent Invasive Species**

10.1 Promote mechanisms for the management and control of alien invasive species
10.2 Implement the International Convention for the Control and Management of Ships' Ballast Water and Sediment

# Developing Targets and Management Actions for the Regional SAP

*Vision and Mission were revised based on experience gained through the YSLME Phase II project and new insights into ecosystem management.*

## VISION

29 June Draft

Our vision is to protect, conserve, and restore the ecosystem health, ~~and~~ natural resources, and environment of the Yellow Sea to secure a ~~sustainable~~ safe and reliable source of food, recreation, and livelihoods; to support sustainable economic growth; and to protect human health, while

also meeting the aspirations for friendship, peace and prosperity of all generations into the future.

## MISSION

29 June Draft

Our mission is to bring all stakeholders together at local, national, regional and global levels to ensure that human impacts ~~resource use~~ remain within ~~in line with~~ natural ecosystem carrying capacity while building ecosystem and societal resilience, ~~achieving reduction of pollution~~ reducing environmental threats, ~~recovery of fish stocks~~, enhancing fisheries~~,~~ and~~,~~ protecting biodiversity and habitats ~~endangered species, and~~ through overall ecosystem-based management of the Yellow Sea.

# Developing Targets and Management Actions for the Regional SAP

*Full SAP draft was distributed to NWGs in mid-August 2020*

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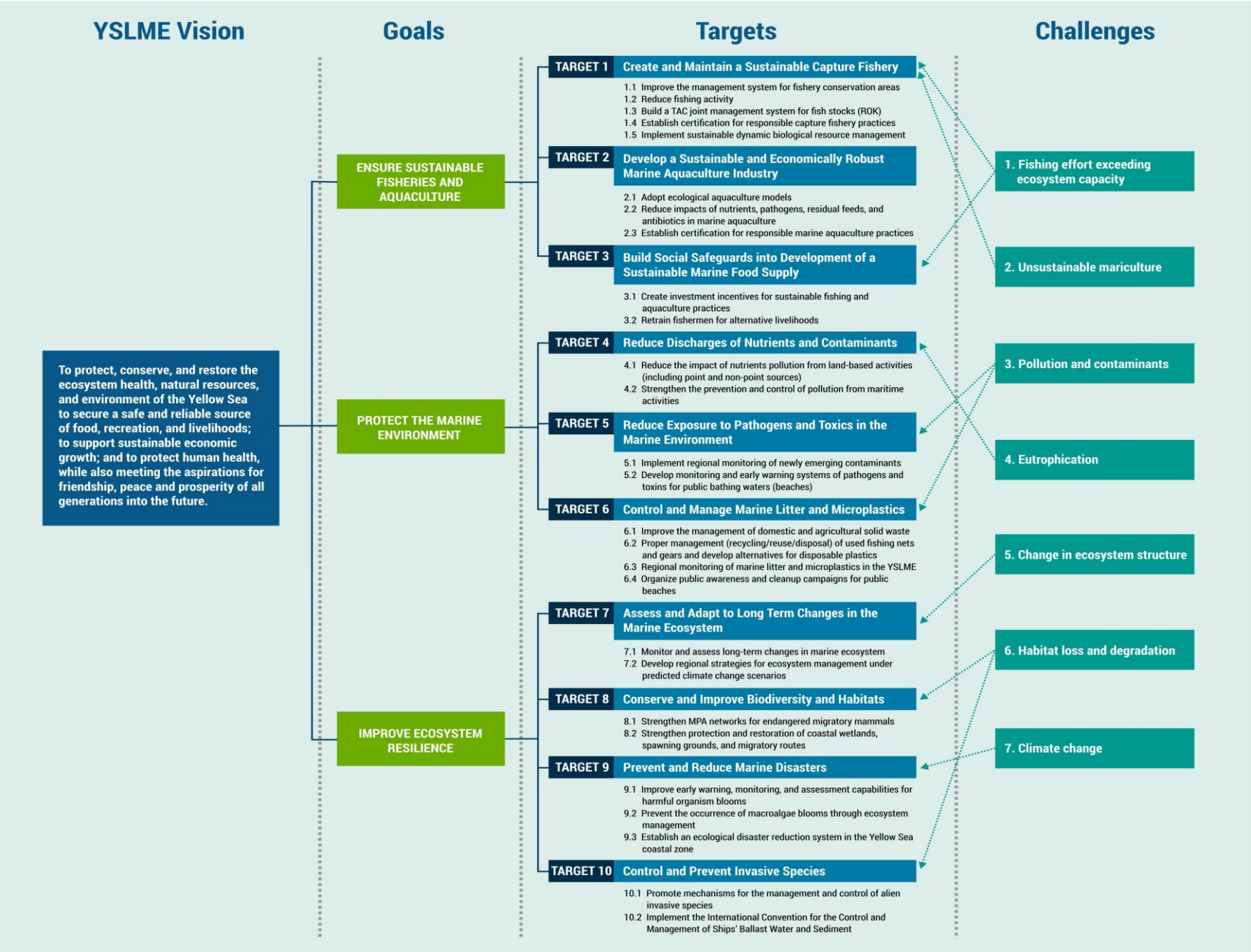

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