The Strategy

Foundation of the Strategy

The strategy is built on the following pillars:

International conventions and international and regional programmes of action

The action programmes of the Strategy are based on the prescriptions of global and regional instruments relevant to sustainable development, such as the WSSD Plan of Implementation, the UN Millennium Declaration, and Agenda 21, including poverty alleviation and other priority targets. The regional programmes of action have been developed over the years through ASEAN, the UNEP Regional Seas Programme, ESCAP, APEC, and others.

Partnerships

The Strategy is meant to be implemented by all the different stakeholders–men and women, public and private, local and national, NGOs, governments, and international communities– working in concert with each other.

Self-reliance and sustainability

The Strategy is geared towards building capacity of the countries in order to promote regional self-reliance to manage the coastal and marine environment to achieve the shared vision.

Synergy

The implementation of the Strategy according to sectors, interests, and issues will have a synergistic, multiplier, and cumulative effect towards the achievement of the shared vision.

Executing the Strategy

Each person in the region is a stakeholder with a role and responsibility to implement the Sustainable Development Strategy for the Seas of East Asia. Central and local governments, private sector, civil society, academe, and the communities play key and active roles in Strategy implementation. UN and donor agencies play a facilitating role through technical assistance, information exchange, and capacity-building activities. Bilateral and multilateral lending institutions are essential in financing the implementation of the Strategy and action programmes. Action programmes are necessarily broad in scope to allow flexibility and adaptability of objectives based on perspectives and capacities of the stakeholders.

National and local governments can effectively execute the Strategy by formulating and adopting corresponding coastal and marine strategies. Alternatively, governments are not precluded from implementing the Strategy through existing mechanisms and programmes.

The roles of the various stakeholders are as follows:

National government

- formulating and implementing a national coastal and marine strategy or policy, utilizing the SDS-SEA as a guiding framework;
- identifying and prioritizing relevant strategies and action programmes that will be implemented at the national level;
- identifying the relevant stakeholders for national strategy implementation;
- designating a lead national agency to coordinate and prioritize the implementation of the national strategy involving various stakeholders and different levels of government; where possible, a neutral line agency is preferred;
- identifying the current level of implementation and incorporating existing action programmes as part of national strategy implementation;
- developing a course of action in the implementation of the national strategy for national government approval and adoption, including allocation of human and financial resources;
- coordinating the implementation of the national strategy;
- developing appropriate norms, standards, procedures, guidelines, criteria and manuals as may be needed by local governments and other stakeholders for the effective implementation of relevant objectives, strategies and action programmes; and
- monitoring and evaluating changes according to the identified indicators.

Local governments

The governments of states, provinces, municipalities, cities, and/or counties ensure ground level actions by:

- developing a local plan of action to implement the Strategy and action programmes;
- designating a competent local agency to coordinate the local implementation of the relevant Strategy, objectives, and action programmes;
- identifying current activities that are already undertaken by the local governments and incorporating these activities within the strategic framework and action programmes;
- securing adoption/approval of concerned local government authority and budget;
- developing cooperation and partnerships with other concerned local governments and/or stakeholders in the implementation of relevant objectives, strategies, and action programmes; and
- monitoring and assessing changes according to identified indicators.

Private sector

- exercising corporate responsibility to the environment;
- identifying areas where private sector's inputs could be most relevant and effective, such as areas for private sector's investment; and
- interacting with concerned government agencies in implementing some of the Strategy and action programmes.

Civil society

- informing, educating, and counseling the people, and mobilizing their support and proactive participation in implementing the action programmes;
- coordinating networks and associations to facilitate implementation of the Strategy through public awareness using their own networks and associations; and
- participating in relevant action programmes.

Academe and research and development institutions

- providing expertise, advice, and relevant information for implementation of the Strategy;
- providing expertise and information to support policy and decisionmaking;
- developing and undertaking research and development programmes to generate the needed information, methodologies, and advice;
- sharing scientific information through networks; and
- building capacity through training programmes and formal education.

Communities

- supporting and actively participating in the local implementation of the action programmes, e.g., those related to protected areas, habitat management and restoration, and waste management.

UN and international agencies

- harmonizing their policies at regional and national levels with regard to the implementation of the Strategy;
- strengthening the capacity at national and local levels to plan and implement the Strategy;
- catalyzing national and local efforts towards implementing the Strategy;
- developing working models and demonstration of approaches and methodologies;
- promoting regional cooperation and collaboration in implementing activities relevant to transboundary environmental issues;
- facilitating the establishment and implementation of the regional mechanisms for carrying out the Strategy; and
- working in a complementary manner and using their comparative advantages to support implementation of the Strategy.

Financial institutions

- incorporating issues related to coastal and marine management in macroeconomic policy dialogue and helping countries to establish appropriate incentive frameworks that promote sustainable coastal zone development;
- supporting reforms in coastal and ocean governance proactively;
- promoting policies that support the establishment of public-private partnerships;
- providing appropriate financial support and technical assistance upon request from countries in the region to implement the Strategy and action programmes;
- supporting the advancement of financial arrangements adapted to the regional, national, and local circumstances, e.g., microfinance, loan guarantees, local government/private sector access to international funds and cost recovery mechanisms;
- focusing interventions on improving local environmental quality and management that also provide regional and global benefits; and
- using incremental resources, e.g., GEF donor support, strategically to better blend with and catalyze other funding.

Donors

- supporting action programmes that are relevant to their interest and objectives at national, local, or regional level;
- facilitating capacity-building, the transfer of new information and appropriate technologies, and providing financial assistance and in-kind contributions in the execution of the Strategy; and
- promoting/supporting the venture of the private sector into environmental investment for implementing the Strategy.

How to Implement the Strategy

- Any initiative to implement the Strategy, whether individual, a coordinated effort between two parties, or multilateral, contributes to the eventual realization of the shared vision for the Seas of East Asia.
- National and local counterpart strategies focusing on priority issues and areas that are of social, economic, and/or environmental significance provide a platform for action.
- A well-coordinated implementation of the Strategy at national, local, and regional levels is desirable to achieve the objectives of the Strategy systematically and within a given timeframe.
- Concerned stakeholders and partners determine their respective roles and interest based on the relevant action programmes designed for specific objectives and specific strategies at national, local, and regional levels.
- Priority projects identified by governments and concerned stakeholders are included in action programmes, with agreed timeframe and budget.

The East Asian Countries shall:

Ensure SUSTAINable use of coastal and marine resources.

PRESERVE species and areas of the coastal and marine environment that are pristine or are of ecological, social or cultural significance.

PROTECT ecosystems, human health and society from risks occurring as a consequence of human activities.

DEVELOP economic activities in the coastal and marine environment that contribute to economic prosperity and social well-being while safeguarding ecological values.

IMPLEMENT international instruments relevant to the management of the coastal and marine environment.

COMMUNICATE with stakeholders to raise public awareness, strengthen multisectoral participation and obtain scientific support for the sustainable development of the coastal and marine environment.

Explanatory Note on the Strategic Action Statement

The specific strategies each cover the following:

SUSTAIN refers to the conservation and rational use of resources for the present and future generations.

PRESERVE refers to elements of coastal and marine areas that should be maintained because of their intrinsic value.

PROTECT refers to taking preventive steps to manage risks or threats to ecosystems and human well-being.

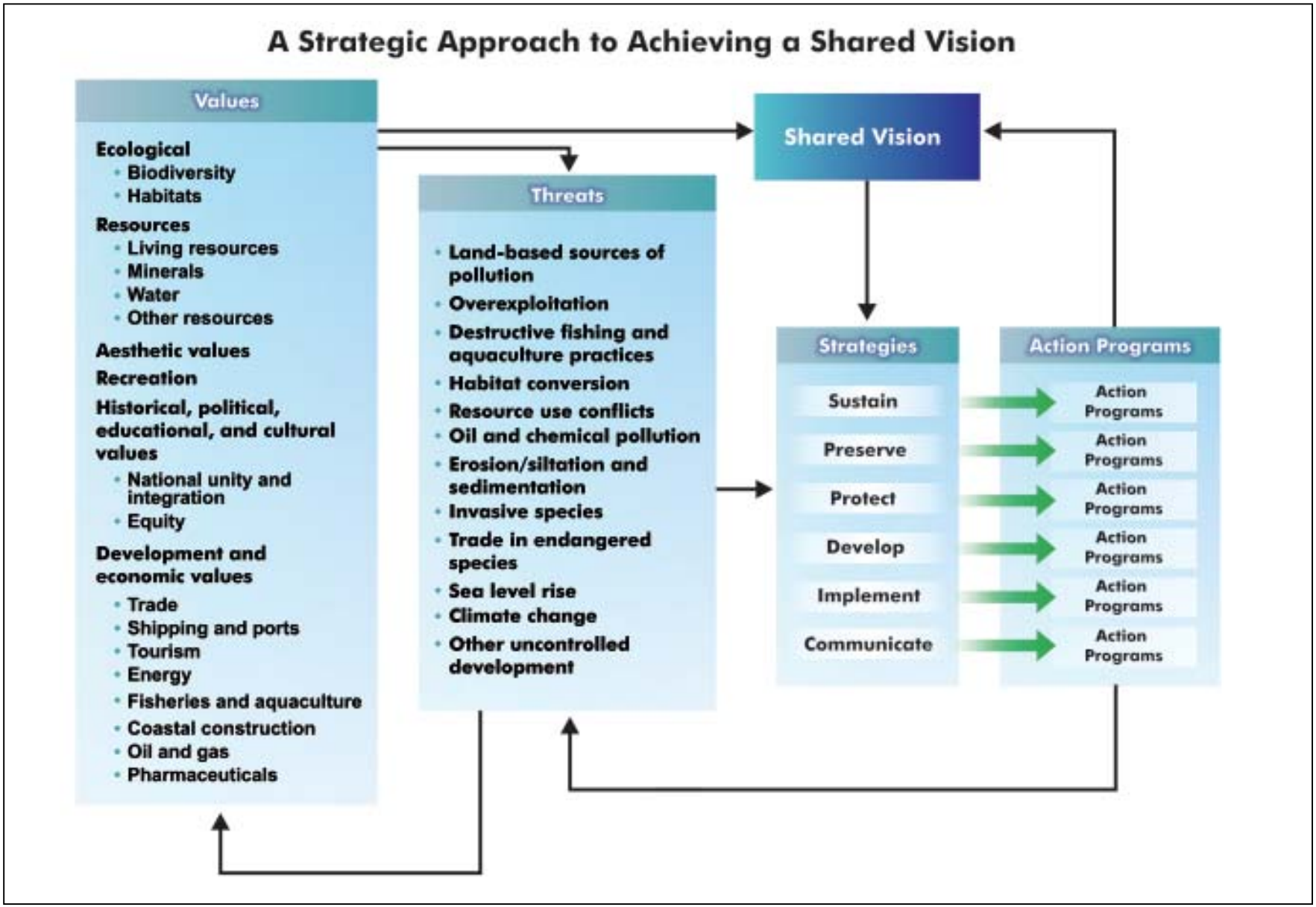
DEVELOP relates to the pursuit of economic development activities in a sustainable manner.

IMPLEMENT refers to capacities and institutional frameworks at local, national, and regional levels necessary for the implementation of relevant international conventions and agreements. The substantive provisions of these instruments are taken up in the other strategies.

COMMUNICATE refers to the enhancement and exchange of ideas, information and knowledge among the stakeholders that is necessary for effective coastal and ocean management.

General Principles

1. The sustainable development of the Seas of East Asia shall be pursued through the application of the integrated management approach as the overarching framework, whereby strategic projects and programmes are implemented for the purpose of ensuring environmental protection and conservation of resources as well as the well-being and dignity of the people of the region.
2. The right to development must be fulfilled so as to equitably meet development and environmental needs of present and future generations.
3. Management of coastal and marine resources and the activities affecting them shall be science-based and respect natural processes and systems.
4. Beneficial uses of the resources shall be encouraged and adverse uses avoided or minimized.
5. Basic linkages between sustainable management of coastal and marine resources, poverty alleviation, and protection of the marine environment should be recognized.
6. Multisectoral partnerships involving NGOs, the private sector, communities, and mass media, as well as government, intergovernmental bodies, international agencies and bilateral and multilateral financial institutions, are recognized as essential mechanisms to meeting the goal of sustainable development.
7. States should recognize and duly support the identity, culture and interests of indigenous people and their communities and enable their effective participation in the achievement of sustainable development.
8. Environmental issues are best handled with the participation of all concerned citizens, at the relevant level.
9. The rights of all sectors of society shall be respected and protected.
10. The precautionary approach shall be widely applied. Where there are threats of serious irreversible damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
11. Activities within one State should not cause damage by pollution to other States and their environment.
12. The interrelationship between conservation and socioeconomic development implies both that conservation is necessary to ensure sustainability of development, and that socioeconomic development is necessary for the achievement of conservation on a lasting basis.
13. Ecosystem-based management approaches shall be applied to ensure sustainable development of coastal and marine areas.


A Strategic Approach to Achieving a Shared Vision
Values
Ecological
Biodiversity
Habitats
Resources
Living resources
Minerals
Water
Other resources
Aesthetic values
Recreation
Historical, political, educational, and cultural values
National unity and integration
Equity
Development and economic values
Trade
Shipping and ports
Tourism
Energy
Fisheries and aquaculture
Coastal construction
Oil and gas
Pharmaceuticals
Shared Vision
Threats
Land-based sources of pollution
Overexploitation
Destructive fishing and aquaculture practices
Habitat conversion
Resource use conflicts
Oil and chemical pollution
Erosion/siltation and sedimentation
Invasive species
Trade in endangered species
Sea level rise
Climate change
Other uncontrolled development
Strategies
Sustain
Preserve
Protect
Develop
Implement
Communicate
Action Programs
Action Programs
Action Programs
Action Programs
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Action Programs
Action Programs

Sustain

The East Asian countries shall ensure sustainable use of coastal and marine resources.

Principles

The needs of the present generation must not be met at the expense of future generations.

To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

Why Sustain?

Sustainability means living on nature's income rather than its capital.

Murray Gell-Mann
1969 Nobel Prize in Physics

Biological diversity and its components must be conserved for their intrinsic value as well as their ecological, genetic, social, scientific, educational, cultural, recreation, and aesthetic value.

Subregional, regional, and global cooperation is needed to conserve and manage living resources of the sea.

Managing the natural resources base in a sustainable and integrated manner is essential for sustainable development.

Objectives

1. Conservation and redress of biological diversity
2. Maintenance and enhancement of the quality of coastal waters
3. Equitable and sustainable fisheries and conservation of fish stocks

East Asian Ecosystems at Risk

Ecosystems suffer not only from the threats common to the marine environment, but from specific threats as well. This is of major concern because the ecosystems of the region are host to biologically diverse species of flora and fauna that are part of the common legacy of the region. An important root cause of the risk is the rapid economic development beyond what the ecosystem can sustain.

Threats to coral reefs

- destructive fishing practices
- sedimentation from land and sea-based sources
- pollution from land and sea-based sources
- climate change/sea temperature rise
- coral and sand mining
- aquarium trade
- overfishing
- predation/infestation (e.g., crown-of-thorns starfish)
- bleaching

Threats to mangroves

- excessive pollution
- conversion to aquaculture ponds
- conversion for coastal development
- deforestation for wood/timber and other products
- saltwater intrusion
- unsound silviculture practices
- sea level rise

Threats to seagrass beds

- conversion to aquaculture ponds
- land-filling for coastal development
- sedimentation from land and sea-based sources
- excessive pollution
- destructive fishing practices

Threats to other wetlands

- destructive fishing and hunting practices
- deposit of human-generated waste material
- chemical contamination
- other forms of pollution
- conversion to rice paddies
- dredging and land-filling for coastal development
- sedimentation
- erosion
- subsidence
- sea level rise
- droughts
- hurricanes and storms
- overgrazing by wildlife
- inappropriate drainage

Threats to estuaries

- dredging and land-filling for coastal development
- conversion
- deposit of human-generated waste material
- chemical contamination
- other forms of pollution
- deforestation
- sedimentation
- erosion
- subsidence
- sea level rise
- saltwater intrusion

Global Center of Marine Biodiversity

East Asia is considered the center of global marine biodiversity. A pattern of decreasing species diversity emerges as one moves away east or west of the region. The number of genera of hard corals (83) and species of seagrass (20), shrimp (125), damsel/angelfishes (268) and seasnakes (38) are significantly more numerous compared to other regions of the world. A high diversity of associated species of plants and animals are also being supported particularly by coral, seagrass and mangrove ecosystems. It is widely believed that the region is the source of larval recruits for other areas.

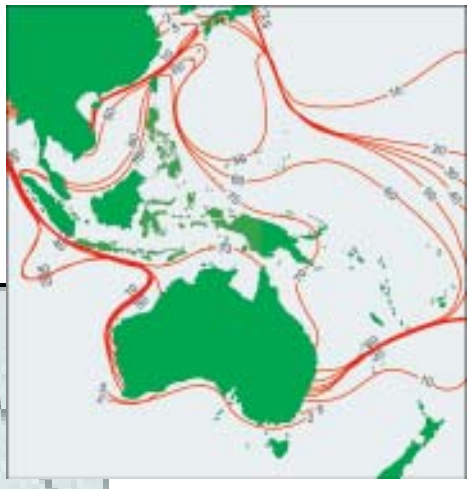
R.S.V. Pullin

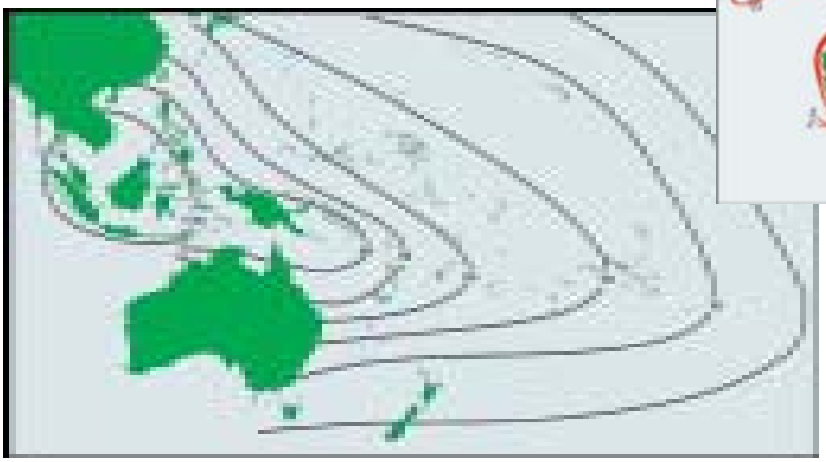
Coral garden, Tubbataha Reefs, Palawan.

A comparison of biodiversity in the Southeast Asia region with the Great Barrier Reef and Caribbean regions shows the significant value of the area.

Region	Marine fish species diversity	Hard coral species diversity
Southeast Asia	2,500	400-500
Great Barrier Reef	1,500	395
Caribbean	500-600	100-200

The global center of hard coral diversity emanates from the region, particularly around eastern Indonesia and the Philippines, where 70 genera are recorded.





The pomacentrid fauna diminishes with increased distance from Indo-West Pacific region.

Sustain

Objective 1: Conservation and redress of biological diversity

Action programmes

1. Implement policy and a strategic framework for the conservation and management of biological diversity by:

    a. Developing policy to integrate management of natural/biological resources and economic development, business ventures and investments in accordance with international agreements such as the Convention on Biological Diversity and the Jakarta Mandate;

    b. Crafting an agreed approach to determining coastal and marine areas of significant biological diversity and natural value and identifying the allowable limits of their use;

    c. Expanding regional cooperation to conserve and manage environmental resources, including overexploited and endangered migratory species and coastal areas of transboundary importance; and

    d. Formulating cooperative agreements on biotechnology research, intellectual property rights (e.g., traditional medicines), and bioprospecting activities by third parties.

2. Restore coastlines, habitats, and resources which are of significant biodiversity and natural value by:

    a. Identifying major threatening activities and processes to coastal and marine areas of significant environmental value;

    b. Incorporating new planning schemes into national and municipal development plans which will restrict development of, misuse or conflicting use of significant sites, habitats, and resources;

    c. Developing capacities at the local government level to plan, develop, and implement sustainable environmental management programmes, including rehabilitation of altered critical habitats;

    d. Setting in place appropriate legal and economic instruments covering restoration and compensation for damage to habitats and biological diversity; and

    e. Exploring innovative investment opportunities, such as "carbon credits" for greenhouse gas mitigation, and user fees for ecological services.

Sustain

Objective 2: Maintenance and enhancement of the quality of coastal waters

Action Programmes

1. Strengthen the compatibility and balance of fresh water and marine water uses by:

    a. Modifying or formulating economic development policies which take into account:
        - the value of water as a catalyst for sustainable social progress and economic growth;
        - mechanisms to address intersectoral conflicts; and
        - ecological impacts of infrastructure projects;

    b. Establishing national policies on water resource development and management, addressing consumptive and nonconsumptive use, food security, public health, and protection/ conservation of natural resources.

2. Integrate subregional arrangements for environmental management of international water systems with coastal and marine ecosystems by:

    a. Extending the implementation of integrated watershed development and management programmes to all major river basins and international water systems in the region;

    b. Incorporating appropriate water quality elements into watershed, coastal and marine management programmes, with a view to both ecosystem integrity and public health protection;

    c. Integrating water resource development into land and sea use plans; and

    d. Preparing and implementing regulations, well-defined property rights, economic instruments and management programmes at the local, national, and subregional level which promote sustainable and rational use of coastal waters.

Sustain

Objective 3: Equitable and sustainable fisheries and conservation of fish stocks

Action Programmes

1. Enhance transboundary cooperation in subregional sea areas for fisheries management by:
   a. Engaging coastal States to adopt and implement the FAO Code of Conduct for Responsible Fisheries;
   b. Increasing recognition of coastal and marine habitats that are vital to the fisheries resource of the subregional sea area;
   c. Strengthening capacity to manage living resources in the EEZ; and
   d. Putting in place subregional institutional measures to monitor the effectiveness of resource management measures.
2. Utilize living resources in a responsible manner by:
   a. Reducing excessive fishing capacity through such measures as buy-back schemes and territorial use rights;
   b. Maintaining or restoring fish stocks to levels that can sustainably support present and future generations;
   c. Applying an ecosystem management approach, inclusive of fisheries management, to planning and development of coastal and marine areas;
   d. Producing shared ownership of fisheries management through cooperative and partnership arrangements, including joint assessment of shared stocks;
   e. Enforcing fisheries regulations at national and local levels; and
   f. Developing and implementing national, and where appropriate, regional, arrangements to put into effect the FAO international plans of action, in particular, those measures to prevent, deter, and eliminate illegal, unreported, and unregulated fishing.
3. Integrate fisheries management into coastal management programmes at the local level by:
   a. Taking appropriate measures to protect the rights and livelihoods of small-scale fishers and fish workers, including community-based management;
   b. Implementing measures against destructive fishing methods and practices that result in excessive by-catch, waste of fish catch, and loss of habitat;
   c. Building capacities in appropriate aquaculture technologies to bring about fish stock conservation and diversification of income and diet;
   d. Increasing community benefits through diverse and innovative approaches to fisheries management, involving commercial, municipal, and recreational fishing, as well as cultural, conservation, trade, and tourism purposes;
   e. Preserving appropriate indigenous/traditional knowledge and practices in fisheries management, including territorial use rights in fisheries; and
   f. Developing sustainable alternative livelihoods for displaced fishers.

Alternative Livelihoods

Efforts towards resource management will not succeed without investigating and developing alternative employment or sources of income and livelihood for coastal dwellers. The challenge is to alleviate poverty by providing sustainable alternative options for livelihood that complement resource management. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

Preserve

The East Asian countries shall preserve species and areas of the coastal and marine environment that are pristine or of ecological, social or cultural significance.

Principles

Pristine habitats and areas of ecological, social, or cultural significance are irreplaceable assets which benefits may not yet be fully understood and they must therefore be preserved.

Wild flora and fauna in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come.

Wetlands perform fundamental ecological functions as regulators of water regimes and as habitats supporting characteristic flora and fauna, especially waterfowl.

States shall take all measures necessary to prevent, reduce, or control the intentional or accidental introduction of species, alien or new, to a particular part of the marine environment, which may cause significant and harmful changes thereto.

Why Preserve?

Our planet's essential goods and services depend on the variety and variability of genes, species, populations and ecosystems. Biological resources feed and clothe us and provide housing, medicines and spiritual nourishment. The natural ecosystems of forests, savannahs, pastures and rangelands, deserts, tundras, rivers, lakes and seas contain most of the Earth's biodiversity. Farmer's fields and gardens are also of great importance as repositories, while gene banks, botanical gardens, zoos and other germplasm repositories make a small but significant contribution. The current decline in biodiversity is largely the result of human activity and represents a serious threat to human development.

Agenda 21

Conservation and sustainable use of biodiversity and the fair and equitable sharing of benefits arising from use of genetic resources is essential to our planet, human well-being, and the livelihood and cultural integrity of people.

Objectives

1. A common management system for marine protected areas of transboundary importance
2. Safeguarding of rare, threatened and endangered species and genetic resources
3. Conservation of transborder areas of social, cultural, historical and geological significance

Preserve

Objective 1: A common management system for marine protected areas[1] of transboundary importance

Action Programmes

1. Select and prioritize coastal and marine protected areas of transboundary importance by:
    a. Agreeing on selection criteria for identifying coastal and marine areas which:
        - contain rare, vulnerable, endangered or critically endangered species or threatened ecological communities within the region;
        - maintain populations of plant and/or animal species important to the biological diversity of the region;
        - support regionally important fish stocks; and
        - provide refuge, a source of food, nursery, and/or migration path for migratory species of regional and/or international importance;
    b. Classifying protected areas on the basis of types and uses, taking into account guidelines, criteria and standards for protected areas and particularly sensitive sea areas under international instruments[2]; and
    c. Prioritizing marine protected areas that are "regional hotspots" serving critical transboundary ecological and/or economic functions.
2. Establish appropriate management regimes for marine protected areas and particularly sensitive sea areas of transboundary significance by:
    a. Adopting a management framework that encompasses the various classifications of protected areas, and provides an integrated approach to the planning, management, and use of the areas;
    b. Building capacity and engaging local stakeholder groups/government units, and the private sector to manage marine protected areas;
    c. Applying complementary land and sea-use planning and development schemes at the national and local levels;
    d. Institutionalizing innovative administrative, legal, economic, and financial instruments that encourage partnership among local and national stakeholders; and
    e. Conducting surveys, developing inventories of marine flora and fauna, and storing/sharing acquired information through national, regional, and international databases.

[1] The term "protected areas" is used in this document as a generic term to include all forms and purposes of protected areas (from no-take to regulated use).

[2] Such international instruments are the Convention on Biological Diversity, Convention on Migratory Species, World Heritage Convention, Ramsar Convention, MARPOL, UNCLOS, and the IMO Guidelines on Sensitive Sea Areas.

Trade in Endangered Species

Marine turtles. Six out of the seven species of marine turtles are found in the Seas of East Asia Region. They have been exploited for a long time in the region for food (meat and eggs), ornamental products (the carapace, commonly known as tortoise shell), and as part of cultural and religious rites. They are also exploited for their oil, skin and bones. This long-term consumption, together with incidental captures in fishing gear and loss of habitat have resulted in major declines in nesting populations in the Southeast Asia region. A leatherback turtle nesting site in Terengganu, Malaysia, has suffered what is considered a "population crash". The decline of most marine turtle populations in the region is estimated to range between 50 and 80 percent.

Marine turtle conservation efforts have increased in recent years, including the adoption of several multi-country agreements, establishment of protected areas and conservation projects. Green, loggerhead, olive ridley and flatback turtles are listed as endangered under CITES, while the hawksbill and leatherback turtles are listed as critically endangered. All countries in the East Asian Seas region except DPR Korea are party to the Convention.

Shark finning. Of the 100 species of sharks being exploited, about 20 are considered vulnerable, endangered or critically endangered. Sharks continue to be threatened by overfishing because they are in demand for their fins, cartilage, meat and liver. The most expensive of these body parts are the fins which command as much as US$564 per kilo. Most of the fins are shipped to Asia and used as an ingredient for shark fin soup, a Chinese delicacy. Sharks killed for their fins increased 2,500% during 1991 to 1998.

The practice of shark finning involves cutting off the fins and throwing overboard the rest of the carcass.

Live reef fish food trade. The live reef fish trade was initially known to supply demand for tropical reef fish in US and European aquarium markets. Recently, however, a shift was noted for a live reef fish food trade (valued at US$1.0 billion in 1995) supplying mainly the Hong Kong, mainland China and Taiwan markets. Buoyed up by a tremendous demand, around 54,000 t were traded in the region by 1997, with Hong Kong importing 32,000 t (around 60%), of which nearly 19,000 were grouper and humphead wrasse. The supply came principally from Indonesia, the Philippines, Thailand, and Malaysia. However, there are two most pressing ecological problems which are associated with the trade and impact marine biodiversity: (1) the use of cyanide, to stun and remove fish from hard-to-reach crevices and coral heads, also causes mortality to corals, reef invertebrates and non-target fish; and (2) overfishing of adult target species (like giant grouper and humphead wrasse which are already on IUCN's Red List), and overharvesting of both spawning aggregations and juveniles set for growout for grouper mariculture.