

SPECIAL REPORT

Strategic Plans of Action for Fishery Resources Enhancement in the Southeast Asian Countries

By SEAFDEC Training Department



The ASEAN-SEAFDEC Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020, adopted in June 2011, stipulated the need for the Southeast Asian countries to “optimize the use of inshore waters through resources enhancement programs such as promoting the installation of artificial reefs and structures, encouraging coordinated and effective planning for coastal fisheries management programs, undertaking environmental impact assessment studies, restocking of commercially important fish species, as appropriate, and give priority to human resources development for the implementation of such programs.” SEAFDEC through its Training Department (TD) and Aquaculture Department (AQD) has been conducting projects to promote resources enhancement through two approaches. One is through the improvement of critical habitats/nursing grounds of fishery resources, and the other is through direct enhancement of the fishery resources by artificial propagation techniques. The experiences of SEAFDEC from the implementation of these projects as well as the relevant initiatives undertaken by the Member Countries were presented at the “Symposium on Strategy for Fisheries Resources Enhancement in the Southeast Asian Region” organized on 27-30 July 2015 in Pattaya, Thailand, to serve as basis for development of the “Strategic Plans of Action for Fishery Resources Enhancement in the Southeast Asian Countries.”

The Southeast Asian countries are blessed with high productivity of fishery resources because of the rich ecosystems in both marine waters and wetlands. Nevertheless, commercially important fishery resources in the region have declined due to the over-exploitation of resources and degradation of habitats. Recognizing the need to enhance the fisheries resources in the jurisdictions of the respective Southeast Asian countries as well as their transboundary areas, SEAFDEC organized the “Symposium on Strategy for Fisheries Resources Enhancement

in the Southeast Asian Region” on 27-30 July 2015 in Pattaya, Thailand with support from the Japanese Trust Fund. Participated by more than 80 participants from SEAFDEC Member Countries, the Symposium was meant to serve as an avenue for sharing of experiences and lessons learnt from resources enhancement initiatives undertaken by SEAFDEC and the countries, as well as for imparting of knowledge from renowned experts on the subject to serve as basis for the development of the way forward for implementing resources enhancement initiatives in the Southeast Asian region.

Recognizing that resource enhancement through habitat improvement and management, as well as artificial propagation and stock release of the region’s economically important species are the effective approaches that would help protect and restore the aquatic resource habitats and target stocks, the Symposium therefore identified and adopted the strategic plans of action for the implementation of fishery resources enhancement activities in the Southeast Asian region (**Table 1**). ❖



Participants during the panel discussion at the Symposium on Strategy for Fisheries Resources Enhancement in the Southeast Asian Region, in Pattaya, Thailand

Table 1. Strategic Plans of Action for Fishery Resources Enhancement in the Southeast Asian Countries

FISHERY RESOURCES ENHANCEMENT THROUGH HABITAT IMPROVEMENT AND MANAGEMENT	FISHERY RESOURCES ENHANCEMENT THROUGH ARTIFICIAL PROPAGATION AND STOCK RELEASE
A) Artificial Reefs Management	A) Potential and Limitations of Stock Enhancement and Restocking
<ol style="list-style-type: none"> 1. Developing Regional Guidelines on Best Practices for Installation of the Artificial Reefs (ARs) 2. Integrating fisheries management measures/principles in ARs management programs 3. Integrating ARs in policies and plans for coastal and offshore fisheries resources conservation, management and development 	<ol style="list-style-type: none"> 1. Developing Regional Guidelines or criteria for feasibility assessment and improvement and disseminating the Guidelines to Member Countries [Note: the Guidelines will take into considerations the elements for higher success of restocking and stock enhancement covering the technical (choice of species, biology/life cycle of species, sustainable supply of quality seeds/stocks), environmental (suitability of site), social/institutional (involvement and strong support of local communities, local government agencies and research institutions), and economic aspects (funds)]. 2. Formulating a 'Strategy or Framework for sustainability of stock enhancement initiatives' and disseminating this Framework to Member Countries
B) Integrating Fisheries and Habitat Management	B) Release Strategies and Ecological Interaction with Natural Stocks
<ol style="list-style-type: none"> 4. Promoting the establishment of fisheries <i>refugia</i> as a tool for integrating fisheries and habitat management 5. Conducting scientific research programs and stakeholders consultation to support the identification of suitable sites and establishment of fisheries <i>refugia</i> for target species, and coming up with scientific evidence that harmonize with local knowledge to serve as basis for developing appropriate management measures 6. Ensuring the sustained participation of key stakeholders in the planning, sites selection and development of management measures for fisheries <i>refugia</i> 7. Enhancing regional and sub-regional collaboration for the establishment of fisheries <i>refugia</i> system for transboundary fish stocks management 	<ol style="list-style-type: none"> 3. Establishing release protocols/guidelines based on scientific findings and in accordance with existing policy instruments/regulations 4. Implementing effective institutional frameworks, policy instruments for the release of stocks, monitoring and enforcement mechanisms at national and local levels 5. Developing and implementing capacity building programs on the application of decision-making tools for stock release
C) Degradation of (fish) Habitats in the Southeast Asian Region	C) Aquaculture-based Enhancement and Restoration
<ol style="list-style-type: none"> 8. Making habitat restoration a priority at national levels 9. Developing the best practice guidelines on habitat restoration for different water resources such as inland and marine, in conjunction with fisheries resources enhancement programs 10. Rebuilding sustainable fish populations in restored habitats 11. Undertaking baseline studies based on indigenous and scientific knowledge 12. Conducting impact assessment of lost natural habitats, and raising the awareness of stakeholders on conservation and protection of the natural habitats 	<ol style="list-style-type: none"> 6. Formulating mechanism that will ensure that stocks for release are healthy/disease-free (for instance, through health certification) and will not pose genetic risks 7. Strengthening IEC (information, education and communication) activities to enhance public awareness on genetic and health risks related to stock release and the need for precautionary measures following relevant Guidelines developed and promoted by FAO. 8. Fostering strong collaboration among R&D institutions, national and local government, and local communities on initiatives that will support wide-scale and high-impact stock enhancement and restocking initiatives



Some activities under SEAFDEC projects on resources enhancement: (left) Dog conch releasing at Sriboya Island, Krabi Province, Thailand; and (above) Installation of artificial reefs activity in Nam Houm Reservoir, Lao PDR