

INTERNATIONAL WATERS EXPERIENCE NOTES

Establishment and Operation of Fisheries *Refugia* in Thailand



Abstract:

Establishment and operation of fisheries *refugia* in Thailand are the national-level activities of the regional project under SEAFDEC/UNEP/GEF aim at establishing the mechanisms for effective cross-sectoral consultation and coordination, particularly in terms of the identification and designation of fisheries *refugia* for fisheries management in order to address the overlapping or conflicting mandates between different sectors concerning fisheries and environment, where internal mechanisms for managing the impacts of fishing practices on habitats and the physical environment do not exist. The results showed that Thailand has accomplished the establishment and operation of 2 fisheries *refugia* and earned the experience on fisheries management via fisheries *refugia* which fully based on ecosystem approach to fisheries management. The activities have addressed the issues regarding sustainable use of fisheries resources and the participation of multi-sectoral sectors and stakeholders which mitigate tension between fishing and environment. For replication of the experience, the priority specific areas of learning and best practices are stakeholder engagement, cross-sectoral coordination, evidence-based planning, and application of fisheries *refugia* management models and strategies. The significance of this experience is its first time of representing a GEF IW project in Thailand which has contributed to integration of fisheries and environment sectors for fisheries and coastal habitat management in the waters of the South China Sea marine basin of Thailand.

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Establishment and Operation of Fisheries *Refugia* in Thailand

An Experience Note under the SEAFDEC/UNEP/GEF Project on Establishment and Operation of a Regional System of Fisheries *Refugia* in the South China Sea and the Gulf of Thailand

PROJECT DESCRIPTION

Establishment and Operation of Fisheries *Refugia* in Thailand are the national-level activities of the SEAFDEC/UNEP/GEF Project on Establishment and Operation of a Regional System of Fisheries *Refugia* in the South China Sea and the Gulf of Thailand. It's aligned with GEF-5 IW Strategic Priority 2: catalyse multi-state cooperation to rebuild marine fisheries in the South China Sea and Gulf of Thailand Large marine ecosystems, and specific outcome 2.1: implementing the fisheries component of the approved South China Sea Strategic Action Programme (SCS SAP). The initial duration of the project is 4 years during 2017-2020 and extended 2 years until 31 December 2022.

Longer-term goals of the project in Thailand are 1) To build the resilience of fish stocks of transboundary significance to the effects of high and increasing levels of fishing effort; 2) To improve the understanding amongst stakeholders, including fisherfolk, scientists, policy makers, and fisheries managers, of ecosystem and fishery linkages, as a basis for integrated fisheries and ecosystem/habitat management; and 3) To build the capacity of fisheries departments to engage in meaningful dialogue with the environment sector regarding the improvement of fisheries and management of interactions between fisheries and critical marine habitats

Its objectives are 1) Identification and management of fisheries and critical habitat linkages at priority fisheries *refugia* in Thailand; 2) Improving the management of critical habitats for fish stocks of transboundary significance via national actions to strengthen the enabling environment and knowledge-base for fisheries *refugia* management in Thailand; 3) Information management and dissemination in support of national-level implementation of the fisheries *refugia* concept in Thailand; and 4) National coordination for integrated fish stock and critical habitat management in Thailand.

The outcomes for each of the above objectives are 1) Reduced stress on fish stocks and coastal habitats via improved national management of key threats to fisheries and critical habitat linkages in Thailand; 2) Increased institutional capacity in the country for the designation and operational management of fisheries *refugia* via the transformation of enabling environments and the generation of knowledge for planning; 3) Strengthened knowledge management and information sharing and access for enhanced uptake of good practice in integrating fisheries management and biodiversity conservation in the design and implementation of fisheries and environmental management systems, including Marine Spatial Planning; and 4) Cost-effective and efficient coordination of national and regional level cooperation for integrated fisheries and environmental management.

THE EXPERIENCE

Issue

Fisheries are critically important from the perspectives of food security and export earnings in Thailand with high levels of fishing effort. Accordingly, all inshore waters of the South China Sea basin of Thailand are subject to intense fishing pressure. Growing global demand for fisheries products, coupled with strong coastal community dependence on fisheries, is driving continued increases in fishing capacity and effort. The obvious impediment to the reduction of inshore fishing effort is that small-scale operators are often entirely dependent on fish for income, food and well-being, and this has resulted in the situation of stocks of nearly almost all important species being fully-fished or overexploited.

The situation of high fishing pressure and declining fisheries resources has contributed to the adoption of unsustainable fishing methods to maintain catch and increase incomes in the short-term. Inshore fishing pressure has therefore been identified as a significant cause of the degradation and loss of coastal habitats in Thailand waters of the South China Sea.

With fish production being linked to the quality and area of habitats and the heightened dependence of coastal communities on fish, a need exists in Thailand to improve the integration of fish habitat considerations and fisheries management in the country. The dilemma for the fisheries and environment sectors is that conservation of habitat does not necessarily result in increased fish stocks

while lowering fishing effort does not necessarily result in the improvement of habitat, given the complexity of the key threats to fish stocks, fish habitats and associated biodiversity in Thailand waters of the South China Sea.

In terms of environmental governance and management, the environment and fisheries are treated as separate sectors for planning and management purposes leading to the overlapping or conflicting mandates between different ministries concerning fisheries and environment, where internal mechanisms for managing the impacts of fishing practices on habitats and the physical environment do not exist.

The project activities proposed to mitigate the problems by establishing the mechanisms for effective cross-sectoral consultation and coordination, particularly in terms of the identification and designation of fisheries *refugia* for fisheries management in Thailand.

Addressing the Issue

To address the issues, the project intended to:

- introduce fisheries management concepts, Fisheries *Refugia*, that are easily understood by fishing communities and emphasize sustainable use leading to community support for ecosystem approach to fisheries management in Thailand;
- build the capacity of fisheries and environment departments and ministries in Thailand to engage in meaningful dialogue regarding how broader multiple use planning can best contribute to improving the state of fisheries habitat management;
- improve understanding among stakeholders, including fisherfolk, scientists, policy makers, and fisheries managers, of habitat and fishery linkages as a basis for integrated fisheries and habitat management; and
- enhance and sustain the participation of local fishing communities and the private sector in management interventions for improved fisheries habitat management and biodiversity conservation through a focus on sustainable use rather than the prohibition of fishing.

For support addressing the issues, the following activities were conducted:

- Developing fisheries and coastal habitat information and data collection;
- Facilitating agreement among stakeholders on the boundaries of fisheries *refugia*;
- Developing Community-Based Management Plans;
- Establishing operational management;
- Strengthening civil society and community organization participation in the management of 2 fisheries *refugia* sites;
- Enhancing policy guidance for improved management of the effects of fishing on critical habitats;
- Developing national guidelines on the establishment and operation of fisheries *refugia*;
- Putting the “establishment and operation of fisheries *refugia* for fisheries management” in the updated “national fisheries management plan of Thailand”;
- Enhancing access to information relating to status and trends in fish stocks and their habitats in waters of the SCS marine basin of Thailand;
- Sharing improved national management and information on fish stock and fish early life history online;
- Enhancing access to information relating to the locations and status of coastal habitats and management areas;
- Strengthening the information base for the planning, monitoring and evaluation of management at 2 priority fisheries *refugia* sites;
- Enhancing uptake of best practices in integrating fisheries management and biodiversity conservation;
- Improving community acceptance of area-based approaches to marine management;
- Sharing, nationally and regionally, knowledge generated and experiences from establishing and operating fisheries *refugia* in Thailand;
- Strengthening cross-sectoral coordination in the establishment and operation of fisheries *refugia* in Thailand;
- Harnessing national scientific and technical expertise and knowledge for support the establishment and operation of fisheries *refugia* in Thailand; and

- Catalyzing local community action via establishment and operation of site-based management board at each fisheries *refugia* sites.

RESULTS AND LEARNING

As a result of the project implementation, Thailand has accomplished the establishment and operation of 2 fisheries *refugia* in the Gulf of Thailand, Trat and Surat Thani Provinces, and earned the experience on new fisheries management via fisheries *refugia* which fully based on ecosystem and community-based approach to fisheries management. The activities have addressed the issues regarding the sustainable use of fisheries resources and the participation of multi-sectoral sectors and stakeholders which mitigate tension between fishing and environment. Results and learning can be summarized as follows:

- Key factors for the success of the establishment and operation of Fisheries *Refugia* in Thailand are the multi-stakeholder participations and precise technical information;
- The main three cross-sectoral management committees have played their significant roles to the effective implementation of fisheries *refugia* in Thailand:
 - National Fisheries Refugia Committee provided guidance on national policy,
 - National Scientific and Technical Committee provided guidance on technical issues, and
 - Site-based Fisheries Refugia Management Board provided guidance on communities' needs.
- Provincial Fisheries Committee is the integrated-stakeholder organization that plays the important roles in the direction, strategy, and decision-making authority for fisheries management in the province;
- For smoothness of fisheries *refugia* establishment, management measures in fisheries *refugia* sites should be compromised between ecosystem/habitats protection and fisherfolk's livelihood;
- Management measures should not cause conflicts among fishers;
- Concrete management plans, based on ecosystem-based approach to fisheries management, are essential to reach the goals of fisheries *refugia* in each site;
- Awareness building and promoting activities are vital for the successful management and community cooperation in fisheries *refugia* areas;
- After fisheries *refugia* establishment, the local authority - Provincial Fisheries Office - is the key agency for integrating effective operation and management in its respective fisheries *refugia* site; and
- Thailand's national project activities supported the linkage of fisheries *refugia* system in the international waters of South China Sea, particularly the transboundary species like short mackerel in Thailand and Cambodia.

REPLICATION

For replication of the establishment and operation of fisheries *refugia* in the other sites of Thailand, the specific areas of learning and best practices are highlighted as follows:

- Stakeholder engagement;
- Cross-sectoral coordination;
- Evidence/technical-based planning;
- Application of fisheries *refugia* management models and strategies;
- Measures on the use of responsible fishing gears and practices;
- Management measures which not cause conflicts among fishers;
- Compromise between ecosystem/habitats conservation and fishers' livelihood;
- Communications and awareness building;
- Political commitment; and
- Annual evaluation.

SIGNIFICANCE

Even though there are a number of fisheries management areas in Thailand regarded as fisheries *refugia*, this experience represents the first time a GEF IW project in Thailand has done on a significant contribution to integration of fisheries and environment sectors for fisheries and coastal habitat management in the waters of the South China Sea marine basin of Thailand. According to the project implementation, Thailand has done a number of activities leading to the enhancement of

scientific, institutional, and policy basis required to reduce the rates of loss of globally significant habitats and biodiversity due to fishing. This is considered important because of the potential global fisheries benefits associated with effective fisheries and habitat management at the local level due to the continuing importance of fisheries to food security, and maintenance of livelihoods.

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KEYWORDS

- ◆ Fisheries Refugia
- ◆ South China Sea
- ◆ Gulf of Thailand
- ◆ fisheries management
- ◆ ecosystem approach