

SDG REPORT



WALAILAK UNIVERSITY 2022 – 2023



LIFE BELOW WATER

14

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Blue Swimming Crab Restoration Project: Increasing crab population and improving fishermen livelihood

Assist. Prof. Dr. Amonsak Sawusdee, Lecturer in Marine Science and Director of the Center for Academic Services, has been a continually operating large-scale research project that aims to restore the crab population in natural water and also improve fishermen's income. Walailak University Blue Crab Bank project presents the project's success scheme, as a model research project, under the title "Creating the Blue Crab Bank Network for BCG Economic Model-based development" in a national research congress, the NRCT Open House 2022. The project has expanded its impact scope from biological resource restoration to socio-economic development such as tourism and marketing approaches in Nakhon Si Thammarat and Surat Thani provinces. Testifying its success, the project had earlier earned several national recognitions – the Excellence Award for Learning Center of Fishery Restoration, the Excellence Award in Thailand Research Expo, and recently the Excellence Award in Innovation Supported Thai Economic Growth awarded by the Ministry of Agriculture and Cooperatives of Thailand. Moreover, Assist. Prof. Dr. Amonsak Sawusdee received The Best Thai Lecturer Award in environmental and social contribution (ASAIHL THAILAND OUTSTANDING ACHIEVEMENT AWARD 2022)

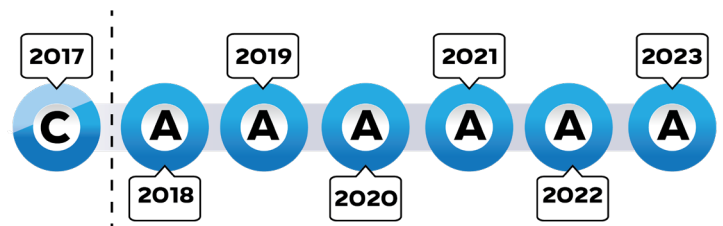
<http://www.asaihlth.in.th/2022/11/30/asaihl-award2022/>.



The project has been continually operated from 2018- 2022 and remained in 2023. In this project, 84 crab-enhanced stations were operated. More than 50,000 mother crabs and their larvae were also released back into natural waters by fishermen. Local fishery communities were educated about crab restoration techniques and ecological improvement methods. The outcomes of this research are that fishermen in Nakhon Si Thammarat and Surat Thani provinces take action themselves to publish an agreement protecting 500 meters from the shore as aquatic nurseries. The findings from this research also support fundamental knowledge for fishery policy makers (Department of Fisheries) to establish Fishery Refugia areas in order to

save small crabs and other species. Moreover, Fishermen increase their awareness of saving juvenile animals. They do not catch small crabs that their size lower than 10 cm.

Research findings also benefit for Thai fishery in terms of improving the FIP score (<https://fisheryprogress.org/>). Thailand was leveled as a C in 2017. With the project being conducted, the scale rose to A from 2018 to 2023. This improvement earns and sustains the country's seafood export on a global scale because, nowadays, more and more international buyers pay attention to the FIP score.



Artificial fish habitat: enhancing species diversity and ecosystem services

The Center for Academic Services (CAS), Walailak University, annually runs an artificial fish habitat project. In 2022, CAS as head of projects invited several partners such as the Department of Fisheries, the Department of Marine and Coastal Resources, the Subdistrict Administrative Organization and the Provincial Administrative Organization to generate marine protected project related SDG 14. The project areas cover Tha Sala District, Nakhon Si Thammarat province, and Tha Chana District, Surat Thani province. Artificial fish habitat is the activities to build houses for fishes and improve the complexity of nearshore ecosystem in order to maintain and extend biodiversity and food chain, especially in the coastal areas.



The constructed materials, such as coconut huts, bamboo, and coconut leaves, were natural. From the survey, there are a large number of small fishes living in the





constructed habitats. Therefore, the fishermen believed that artificial fish houses could improve abundance and biodiversity, which benefits local fishermen. The process of building the fish house is to pitch the bamboo on the ground at sea with the fisherman's hands. Next, use fresh and dry coconut leaves attached to the pavilion. Additionally, fish houses have a little channel for juvenile and baby animals to stay inside to grow up and hide from predators.

Walailak University in cooperation with local communities and stakeholders has plan to drive this project every year in order to improve both ecosystem services and fishermen's awareness. This project also aims to create an opportunity for fishermen to protect their resources themselves and to sustain fishery resources in the future.

Water Resource and irrigation Management in Pak Phanang Basin: Stakeholder participation and co-management strategy



Walailak University, through the Center of Excellence in Sustainable Disaster Management and the Center for Academic Services, organized the meeting for water management brainstorming in the irrigation area in the Pak Phanang River Basin which covered 14 subdistricts in Pak Phanang district and Hua Sai district, Nakhon Si Thammarat. In the activity, WU provided an event for all stakeholders around the river basin to exchange ideas on suitable water management to be used all year including water allocation that meets the needs of the agriculturalists. In addition, those agriculturalists expressed ideas on water security strategies. This project was implemented through cooperation between Walailak University, the Office of the Royal Development Projects Board (ORDPB), the Administration and Coordination Center for Pak Phanang River Basin Development, the Regional Irrigation Offices,

local governments, and subdistrict administration organizations. The water management was implemented based on stakeholder's needs and monitoring the volume of fresh, brackish and seawater. The abundance of fauna and flora species are taken into consideration in management strategies.

Ban Haad Som Boon, WU research area, is selected as one of the best five role models of SDG Learning communities.

The International Health Policy Program, Thailand (IHPP) announced that Ban Haad Som Boon, where the restored blue crab project is operated, was selected as one of the best five communal role models linked to SDG learning communities. The SDG learning area is part of the project titled "The Learning Circle Creation for the Sustainability of Thailand". The project aims to be an important milestone in starting the creation of a mechanism for bringing information to policy agenda setting through the preparation of situational information and identifying gaps in the implementation of Sustainable Development Goals in Thailand.

The Blue Crab Bank has been supported by Walailak University's Center for Academic Services for five years to provide educational outreach on sustainable crab fishing following SDG 14: Life below Water. The crab restoration program has been successfully generating a large natural population of blue crabs, allowing the fishermen to catch a higher volume of crabs compared to the catch rate before starting the project, thereby increasing household income. In the future, all five SDG learning communities will disseminate knowledge to other areas to mobilize the UN's Sustainable Development Goals for Thai society.

