

## Annual Report on SDG14 Life Below Water

### 14.2 Supporting aquatic ecosystems through education

#### 14.2.3 Educational outreach on overfishing and IUU (Illegal, Unreported and Unregulated) fishing for local and national communities

Unsustainable fishing and the use of illegal, unreported, and unregulated (IUU) methods—such as push nets, trawl nets, electric fishing, and chemical use—have severely damaged aquatic habitats in the **Songkhla Lagoon** and nearby coastal areas. Local fishers and youth often lacked understanding of legal fishing practices and ecosystem impacts, contributing to biodiversity loss and reduced fish stocks.

Thaksin University adopted a **community-based educational outreach approach** to raise awareness and encourage behavioral change among local fishers, students, and the public. The concept integrates **scientific knowledge, legal frameworks, and participatory learning** through exhibitions, workshops, youth camps, and digital media to promote sustainable fisheries and responsible resource use.

#### Activities/Innovations

##### 1. Illegal Fishing Awareness Exhibitions and Workshops

Conducted across multiple lagoon communities (e.g., Ban Klang, Ban Mai, Ban Pak Pra). Displays explained impacts of illegal gears and showcased eco-friendly fishing tools. Supported by the *Living Fish House Project* to promote habitat restoration and reduce illegal fishing.



## 2. Youth Camp “Water Detectives”

Engaged students and youth in exploring freshwater and lagoon ecosystems. Activities included identifying destructive gear, water-quality testing, and learning about sustainable fishing practices.





### 3. Community Forums “Sustainable Fisheries – Living with Nature”

Dialogue between researchers, local fishers, and government agencies on overfishing impacts and restoration results. Promoted ecosystem-based and law-compliant community fisheries management.

### 4. “Green Market Initiative” (Talat Tai Thun)

Created eco-friendly market spaces promoting sustainably caught fish and community products. Awareness corners provided education on “right-size” and “right-season” fishing.

### 5. Digital Outreach and Legal Knowledge Sharing

Dissemination of short videos and posts via social media (e.g., #SaveSongkhlaLagoon, #FishRightEatRight). Articles and academic briefs from the Faculty of Law addressed marine legal control and IUU prevention frameworks.

Facebook page “*Songkhla Lagoon Gyotaku by Dr. Tueanta*” used as a creative platform for conservation communication.

### Quantitative Results

- **6 community learning centers** established around Songkhla Lagoon as model sites for sustainable fisheries education.
- **15+ outreach activities** (training, exhibitions, and youth camps) conducted between 2023–2024.
- **Over 1,000 participants** (fishers, youth, and officials) engaged in awareness programs.
- **30% reduction** in illegal gear use reported in key lagoon zones.
- **10 digital media outputs** (videos, posts, infographics) produced for public communication.
- **2 academic policy briefs** published on legal measures for IUU fishing prevention.

Thaksin University conducts educational outreach to raise awareness about **overfishing, and destructive fishing practices** among communities around Songkhla Lagoon. Through exhibitions, youth camps, legal education, and digital media, the university promotes sustainable fisheries and ecosystem conservation. Over **1,000 participants** have joined activities, leading to greater understanding of legal fishing and reduced illegal practices. These initiatives demonstrate an integrated model of **community-based learning and behavioral change** toward sustainable aquatic resource management.

- Focuses on providing knowledge and raising awareness about illegal fishing and destructive fishing practices.
- Target groups include fishers, youth, students, and coastal communities, so they understand the impacts of illegal fishing.
- Training and exhibitions on illegal fishing gear
- Youth camp “Water Detectives”
- Online outreach through educational videos and knowledge pages on IUU Fishing

These efforts demonstrate that the university plays a key role in raising public awareness of sustainable fisheries.

### Ban Klang Coastal Learning Center, Pak Phayun

- ◆ Living Fish House Project – supporting the reduction of illegal fishing gear
- ◆ Exhibition: “Understanding Illegal Fishing Gear”

Public evidence: <https://shorturl.at/Ed2SB>

### 1. Implementation of conservation and illegal fishing prevention measures

Thaksin University plays an active role in disseminating knowledge to local communities on the use of legal fishing gear and in reducing illegal fishing practices. The university places emphasis on helping communities understand the impacts of overfishing and destructive fishing tools, such as push nets, trawl nets, trap nets, and the use of electric currents or chemicals to catch fish—methods that severely damage marine ecosystems.

These initiatives are carried out through training programs and community knowledge-sharing platforms, involving officers, researchers, and local conservation groups who provide guidance on sustainable fishing practices. The university also promotes the use of environmentally friendly traditional fishing gear, such as fish traps, bamboo baskets, and small-mesh nets that do not destroy aquatic habitats.

### **2. The establishment of aquatic animal conservation zones and artificial fish habitats to restore the ecosystem**

Several aquatic species conservation zones and artificial fish habitats have been established across various areas of Songkhla Lake to create safe refuges for aquatic animals and reduce pressure from overfishing. These initiatives are jointly implemented by local communities and the university under the concept of “Integrated Watershed Management,” connecting the upstream, midstream, and downstream areas of the lake to support sustainable ecosystem restoration.

### **3. Using community learning centers as a base for knowledge dissemination**

Community learning centers in various areas—such as Ban Mai, Ban Klang, Ban Chai Khlong, and Ban Pak Pra—are used as key platforms for communicating conservation knowledge to local residents, youth, and visitors. Core activities include exhibitions and workshops on illegal fishing gear, demonstrations of proper traditional fishing gear, the “Living Fish House” and “Participatory Conservation Zone” activities, as well as youth camps and demonstrations on the impacts of overfishing.

These learning centers serve as hands-on learning spaces, where community members participate as both learners and knowledge contributors. The overall aim is to promote behavioral change among fishers toward sustainable fishing practices.

#### 4. Knowledge integration and cross-sector participation

Beyond the community level, the university also collaborates with government agencies such as the Department of Fisheries and local administrative organizations to promote the enforcement of regulations controlling destructive fishing gear, monitor water quality, and report fishery resource conditions on a continuous basis. These efforts aim to ensure that local fishery management aligns with the principles of Ecosystem-based Management.

As a result, communities around Songkhla Lake have become more aware of the impacts of illegal fishing and the destruction of aquatic habitats. Six community learning centers have been established as knowledge-sharing networks and model areas for sustainable fishery management. Youth and university students have also gained hands-on learning experiences and participated in conservation activities.

Thaksin University has systematically carried out educational outreach programs to raise awareness of overfishing, IUU fishing, and destructive fishing practices through participatory learning processes involving communities, learning centers, and local partner organizations around Songkhla Lake.

##### Learning Center

Thaksin University, through the Faculty of Science and Digital Innovation, has established and developed six community learning centers around the Songkhla Lake Basin as knowledge hubs for conservation and sustainable fishery management. These centers were developed under the research project, “Developing Models and Mechanisms for Aquatic Resource Management for Lifelong Learning,” supported by the Program Management Unit on Area-Based Development (PMUA) and the Thailand Science Research and Innovation Promotion Fund (TSRI).

### Characteristics of the Learning Centers

Each learning center is located within local small-scale fishing communities around the Songkhla Lake, including Ban Chai Khlong, Pak Pra, Ban Khlong Khut, Ban Klang, Ban Chong Fuen, Ban Mai, and Ban Khok Mueang. The centers operate under the concept of “Sustainable Fisheries Learning Space,” integrating scientific knowledge with local wisdom. Each center is designed as a Living Museum, where communities co-create learning activities and share knowledge about responsible use of aquatic resources.

The centers communicate the impacts of overfishing and illegal fishing practices (IUU Fishing) through hands-on, experiential learning activities, such as creating fish houses and community-managed conservation zones to restore aquatic habitats, exhibitions on destructive fishing gear such as trap nets, push nets, and trawls, demonstrations of legal and environmentally friendly fishing gear, training sessions for youth and fishers on the impacts of overfishing and destructive fishing methods, and stock enhancement activities and mangrove reforestation to rehabilitate aquatic ecosystems

### Objectives and Target Groups

All learning centers function as community-based platforms for lifelong learning, accessible to people of all ages. The primary target groups include small-scale fishers in the Songkhla Lake Basin, youth, school students, university students, local government agencies, and eco-tourists.

Learning activities focus on raising awareness of the ecological impacts of overfishing on biodiversity, promoting sustainable fishing practices, encouraging the use of environmentally friendly fishing gear, and strengthening community participation in monitoring and managing aquatic conservation areas

A network of six community learning centers has been established to disseminate knowledge on sustainable fishery management. Local communities have become more aware and increasingly engaged in preventing illegal fishing practices. Youth participants have gained knowledge about fish biodiversity in Songkhla Lake and developed a deeper understanding of the importance of conservation.



Some learning centers, such as Ban Mai in Singhanakhon District and Ban Klang in Pak Phayun District, have expanded their activities into permanent exhibitions and have developed into eco-tourism and educational destinations.

The implementation of these learning centers serves as a practical example of area-based knowledge management that fully integrates the goals of SDG 14.2.3. Guided by the concept of “from knowledge to conservation action,” the centers enhance public understanding of overfishing and illegal fishing, while inspiring behavioral change among local communities and youth in tangible and meaningful ways.

## Aquatic Life Shelter Project

### Objective:

To restore aquatic habitats and raise community awareness on conservation.

**Activities:** Explaining the principles of artificial fish houses and their ecological benefits; demonstrating how to construct fish houses using natural materials; organizing photo exhibitions showing before–after comparisons and changes in fish species diversity.

This initiative aligns with SDG 14.2.3 as it promotes awareness of responsible use of aquatic resources and helps reduce fishing pressure from overexploitation.



Public evidence:

<https://www.tsu.ac.th/home/details.php?aNum=20241213121011&id=4414&gid=1&pid=0>

## Water Detectives Camp

**Objective:** To build understanding of aquatic ecosystems and the impacts of overfishing.

**Activities:** Investigating the causes of water quality degradation; studying the relationship between aquatic species and their habitats; and playing classification games on “sustainable fishing gear vs. destructive fishing gear.”

**Outcome:** Youth participants developed awareness of the impacts of overfishing and understood the role of communities in conservation.

## Sustainable Fisheries Forum

**Activities:** Organizing dialogue sessions among researchers, fishers, and government agencies; holding public forums to present research findings such as evaluations of fish houses, conservation zones, and changes in fish species; and developing information boards that showcase ecosystem recovery after the reduction of illegal fishing gear.

This aligns with SDG 14.2.3 as it promotes co-creation of knowledge and public communication on sustainable fishery management.

## Green Market Initiative

**Description:** A local market emphasizing products from sustainable fisheries.

**Activities:** Educational corners on “catching fish in the right season” and “appropriate fish size”; “Sustainable Fish” labels for products sourced from legal fishing; and storytelling activities led by women fishers and youth in the community. These efforts help raise awareness about overfishing and promote consumption behaviors that support conservation.



## 1. Key Content of the Legal Article

The document presents essential information on marine environmental control and the regulation of impacts from ocean-based activities, legal frameworks and measures to prevent illegal and destructive fishing practices, and capacity building and law enforcement to protect marine and coastal ecosystems.

All of these contribute to promoting the concept of “responsible and sustainable use of marine resources.”

## 2. Utilization in Relation to the SDGs

Although the document is presented as an academic article or policy paper, it can be used as supporting knowledge for the university’s outreach activities, as its content connects directly to explain the impacts of overfishing and destructive fishing gear, provide legal strategies for managing IUU Fishing and other unsustainable marine activities, and present case studies from areas affected by illegal fishing

## 3. Institutional Application

The article reflects the university’s role in academic outreach: Communicating legal knowledge and marine resource management strategies to government agencies and coastal communities.

Policy support: Applying research findings to develop guidelines and policy recommendations for addressing illegal fishing

Public education: Serving as a reference for training programs and courses on IUU Fishing and sustainable fisheries management

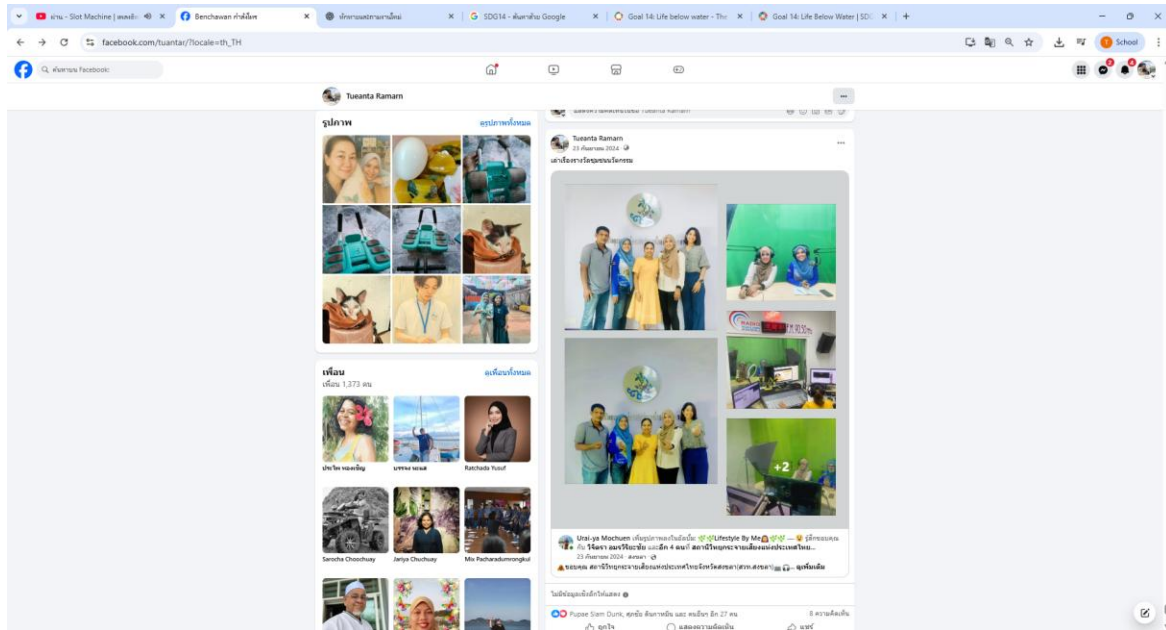
## 4. Digital Outreach Activities

Producing short clips such as “Did you know... how illegal fishing harms the ocean?”

Social media campaigns like #SaveSongkhlaLagoon or #FishRightEatRight

Posting educational content through the page “Songkhla Lagoon Gyotaku by Dr. Tueanta”

These activities communicate conservation messages in simple and accessible language, providing modern outreach that can effectively reach younger generations and tourists.



The university's activities aligned with SDG 14.2.3 can therefore be categorized into four main types.

Types	Samples of Activities	Main Goals
Exhibition & Workshop	Exhibitions on illegal fishing gear/Living Fish House project/Water-inspired art (Art from the Water)	Providing knowledge and raising awareness
Camp & Forum	Water Detectives Youth Camp/Sustainable Fisheries Forum	Participatory and hands-on learning
Green Market & Ecotourism	Tai Thun Green Market/Conservation Tourism Trail	Linking the community-based economy with conservation
Digital Outreach)	Educational video clips/Facebook knowledge page/QR code-based exhibition	Public communication and youth engagement