



Prevention, reduction and recycling of fishnet pollution in Vietnamese coastal waters

THOMAS POTEMPA

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Zielgruppen

Ostfalia
Hochschule für angewandte
Wissenschaften



- Enterprises (employers + employees) - Fisheries sector
- Authorities and administrations (public)
- Students and university staff (capacity building)
 - Plastics processing industry
- Wider public

Project Partner

Ostfalia
Hochschule für angewandte
Wissenschaften



Political partner(s)

- 1) Directorate of fisheries
(Ministry of Agriculture and
Rural Development)
- 2) Department of Fisheries (Quang Ninh Province
/ North Vietnam)
- 3) Department of Fisheries (Khanh Hoa province/
Central Vietnam)
- 4) Department of Fisheries (Kien Giang province/
South Vietnam)

Implementing partner(s) / Subcontractor(s)

- 1) NTU - Nha Trang University (Central Vietnam)
- 2) RIMF - Research Institute for marine fisheries
(North Vietnam)
- 3) HLU - Halong University (North Vietnam)
- 4) KGU - Kien Giang University (South Vietnam)
- 5) Vietnam fisheries society
- 6) Vietnam Tuna Association (VINATUNA)
- 7) Siam Brothers Vietnam CSC
- 8) Truong Phat Super JSC

Impacts



- Reduction of abandoned, lost or discarded fishnets.
- Increase of awareness to avoid losses of fishing gear (fishery enterprises/fishermen and fishery authorities, Vietnamese society in general)
- Creation of a market for recycled raw material from these sources
- **Increased environmental awareness and first steps into the direction of a closed cycle economy will find their reflection in higher education.**

Outcome

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The environmental awareness amongst fishermen concerning marine pollution is increased and fishery enterprises reduce marine pollution by costal fishery activities due to lost, abandoned or discarded fishing nets and gear.

Key actors in Vietnam agree on a shared vision and activities required for a closed cycle economy of fishing gear and act accordingly. The vision is supported by higher education and the wider public.

Outputs



| <u>Output I</u> | <u>Output II</u> | <u>Output III</u> | <u>Output IV</u> | <u>Output V</u> |
|---|--|--|---|---|
| <p>A database, based on surveys at fishery enterprises/fishermen, that is as holistic as possible and provides information on the quantities and material condition of the lost, abandoned or discarded fishing nets as well as the socio-economic and socio-cultural background. The database is constantly updated throughout the project, in particular, the quality of the used/aged nets and the socio-economic background is an absolute prerequisite for the best practice guidelines in Output II and its acceptance by the primary target group.</p> | <p>In close cooperation between the Vietnamese universities involved and Ostfalia, "best practice guidelines" for avoiding a loss and recycling of used fishing nets are increasingly being applied. This is made possible by providing easy-to-understand guidelines for every part of the user chain involved, from fishing net manufacturers, fishermen and logistics companies to plastic recyclers and plastic processors. These guidelines clarify the responsibilities and necessary actions for each stakeholder to build a collection and recycling system to support the reduction of abandoned, lost or discarded fishnets.</p> | <p>Implement plastic recycling demonstration centres at Vietnamese universities in the three addressed regions and two demonstration sites in two enterprises. In the regions, the implementation of possibilities for reprocessing plastic waste streams into new products is achieved with industry partners in close cooperation with the Vietnamese plastics industry. In the centres, the feasibility of plastics recycling is verified and transferred to industry. These opportunities open up further cooperation with industrial partners in the plastics sector together with the universities involved.</p> | <p>Media campaigns and dissemination conferences focusing on the problems caused by lost, abandoned or discarded fishing nets increasing sustainable thinking among the population as well as giving advice to key decision makers.</p> | <p>Training of staff and students from Vietnamese partner universities at Ostfalia to improve sustainability education and increase university-enterprise-partnerships for research and development on recycling of marine litter from fishnets and fishing gear. This output builds capacity for Output III and Output IV.</p> |

Workpackages



- **WP 1: Preparation**

Development of a survey at fishery enterprises/fishermen on Economic Data concerning fishnets and analysis of survey data.

Development of a survey at fishery enterprises/fishermen to collect data on the use-phase of fishing nets and analysis of survey data.

Development of an end of lifetime analysis for fishing gear and nets to be performed at fishery enterprises/fishermen and analysis of survey data.



SusFish-Platform
(Database for stakeholder
and science)

Workpackages

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Wissenschaften



- **WP 2: Fishnet material and recycling opportunities**

Collection and examination of fishnet material for different phase of use from the Vietnamese provinces of Quang Ninh (North), Khanh Hoa (Central) and Kien Giang (South) to determine the degree of pollution and damage.

Performing of accompanying studies on the quantity and quality of the collected materials in order to get an overview of the quality of the collected and pre-sorted materials.

Elaboration of best practice guidelines for recycling friendly use of fishnets based on the results of WP I and discussion with stakeholders and political partners

Development and delivery of courses on best practice guidelines for recycling friendly use of fishnets to fishermen and fishery enterprises



Best-Practice Guidelines
(Fishermen and stakeholder in the logistic chain)

Workpackages

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- **WP 3: Recyclability of fishnets**

Development of recycling materials from old/used fishing nets and gear.

Product development based on recycled material for closed cycle economy

Implementation and operation of Demonstration centres for plastics recycling



**Demonstration centres at
NTU, KGU, HLU**

New products

Workpackages



- **WP 4: Environmental awareness**

- Conception and creation of Media campaigns, containing social media concepts and documentary series, increasing public awareness on maritime sustainability.
- Development and use of a project app with built-in features to increase people's participation in the project.
- Design and operation of project web-site to inform the wider public about project results
- Conception and creation of workshops and presentation of project results to the scientific community and the public

- Organizing of three international scientific conferences for external dissemination
- Establishing of regular information exchange meetings with local authorities
- Implementation of “Round table talks” with top level political partner

Workpackages



- **WP 5: Train-the-trainer**

Selection of VN- staff and students for capacity building activities

Conception and implementation of the “Train the trainer” programme at OHBW

Experience exchange at Vietnamese partner institutions



Capacity building in Higher Education
(Regular and Ongoing Education; Consulting capabilities)



Primary objective: **GOAL 14: “Life below water”**

Direct contributions to the following SDG’s:

GOAL 4: Quality Education

GOAL 17: Partnerships to achieve the Goal

Contributions to

GOAL 8: Decent Work and Economic Growth,

GOAL 9: Industry, Innovation and Infrastructure,

GOAL 12: Responsible Consumption and Production

Side effects are to be expected for:

GOAL 2: Zero Hunger (long term effect due to clean marine environment for food), **GOAL 5: Gender Equality** (due to increased quality of education), **GOAL 11: Sustainable Cities and Communities** (developed reuse/recycling paths can be adopted for other plastic wastes and hence will reduce entry of plastic wastes into the environment on land), **GOAL 13: Climate Action** (developed reuse/recycling paths can be adopted for other plastic wastes and therefore reduce thermal discharge of plastic wastes), **GOAL 15: Life on Land** (contribution to SDG11 will simultaneously affect conditions for life on land)