Good Results of SMART-Fish Programme Gain Supports for Up-Scaling

Currently in its fourth year, the SMART-Fish Programme has shown strong and encouraging results, from upstream to downstream levels of the selected value chains: seaweed, pangasius and P&L tuna. The results were presented during the SMART-Fish 9th Steering Committee (SC) meeting held on July 26, 2018 and SC members gave support for further up-scaled to wider areas throughout Indonesia.

Up-scaling activities have been gathering pace following the establishment of well documented SOPs for productive seaweed (2) and pangasius farming (1). Up-scaling activities using printed and Apps of established SOPs have resulted in 447 seaweed and 233 pangasius farmers in resulting in increasing productivity and profits as well as improved quality of their harvests.

Following SOP adoption, farmers have successfully increased their harvest by an average 31% in South Sulawesi and 13% in Madura, with the highest being the increase in production in Takalar (Gracilaria) by 55%. Total production of seaweed covered by the programme so far is estimated at around 1,625 tons dried seaweed per harvest or around 11,375 tons/year (6-7x harvests per year) valued at IDR 13.3 billion (USD 917 million). The SMART-Fish SOPs implemented in pangasius farming have improved Feed Conversion Ratios
On the curriculum development of STP, the establishment of detailed study outlines (RPS) have almost completed. Meanwhile up-skilling of STP staffs jointly carried with UTas have resulted in publication of research papers by the staffs in international journals. The pilot internship for 18 STP students were also successfully organized and have resulted in an increased demand from private companies for similar programme and improved employability of the graduates. The programme has actively started implementing activities activities related to promotion such as supporting the association in international exhibitions, joint activities with other programmes (e.g. SIPPO and IPNLIF) and ongoing development of generic brands for seaweed, pangasius and P&L tuna value chains. Strengthening the capacity of relevant associations is also part of the programme’s activities.

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as a result more fish is going into fillet processing.

SC members have agreed on the new areas for up-scaling in seaweed farming are Fakfak, Jeneponto, Bantaeng, Bone, Nunukan, Tarakan, Re Ndau, East Sumba, and Brebes districts. While for pangasius farming to be expanded to North Sumatra, Riau, South Sumatra, Lampung, West Java and South Kalimantan provinces.

In education programmes, the collaboration between Jakarta Fisheries University (STP) and University of Tasmania is running smoothly.
Working Together to Increase Seaweed Farmers’ Income

Villagers have been farming seaweed along the coast of the province of South Sulawesi to supplement their income from fishing for several decades. As global demand for seaweed and seaweed products has taken off, prices have increased, and many villagers have responded by taking up seaweed farming full-time.

Mangambe Deeng Siama, a seaweed farmer from the village of Ujung Bali in the Takalar region of South Sulawesi, told The Jakarta Post that he has concentrated on growing the harvested, the spores will grow rapidly becoming seeds and therefore there is no requirement for new seeds to be planted. In other coastal areas outside Maccini Baji waters, spores cannot grow like this.

The long line gracilariya farming in the area was started in 2009 by the Indonesian Freedom Workers Union (Kospermindo) and PT Agarindo Bogatama together with groups of farmers. They discovered that this method resulted in a better quality seaweed than that farmed in

Gracilaria species of seaweed for around 10 years now.

"Gracilaria is easier and more economical to grow," he said, adding that Gracilaria plants can be harvested eight times a year over four years. Particularly on the Maccini Baji coast, Takalar, South Sulawesi, Gracilaria is uniquely farmed using a long line method, whereas the majority of Gracilaria in Indonesia is farmed in brackish water ponds along with shrimp and milkfish. Professor Jana T. Anggadiredja, researcher of seaweed expert of SMART-Fish Programme confirmed the uniqueness of Takalar coastal waters.

"In Maccini Baji waters, the growth of Gracilaria seedlings is assisted by spores, which are able to grow in abundance along the ropes. When ponds. Agarindo Bogatama is the world's largest manufacturer of agar, a jelly-like substance formed when Gracilaria seaweed is boiled. It exports 30% of its agar to Japan and the United States of America, with the rest sold on the domestic market. While KOSPERMINDO is a successful seaweed co-operative with over 3000 member farmers.

Since 2015, the SMART-Fish programme has built on the groundwork carried out by Agarindo Bogatama and Kospermindo to help farmer groups increase productivity and improve quality. In Takalar 60 farmers have adopted SMART-Fish SOPs out of 150 trained farmers, and on average they manage to increase production by 55%."
As a result, both productivity and quality have improved. Siama, one of the seaweed farmers implementing the SOP, told journalists that his production has doubled from 3.5 tons to 7 tons (dried) per harvest.

Anita Nirody, UN Resident Coordinator in Indonesia, who recently visited one of the pilot projects in the Takalar region, told the local Liputan 6 television station, “This project is supporting one of Indonesia’s most important products. We have seen several successes, for example, seaweed production by farmers here has gone up by 55% and profits for the farmers up by something like 29%.” She added that Takalar now has the potential to develop into a seaweed production hub.

As well as improving the yield and quality of seaweed sold as raw material for industrial processing, the SMART-Fish project is empowering female seaweed farmers by helping them create alternative sources of income. Around 150 women seaweed farmers have been trained in the processing, packaging and marketing of 17 seaweed-based foods such as seaweed noodles, juice, syrup and biscuits.

The UN’s Nirody told CNN Indonesia, “We are seeing that women are getting increasingly engaged. I really see this project as one that is investing in human capital. It is building up the skills and knowledge of the farmers and there is a special emphasis on women.”
In comparison to other seafood products, eco-labelling in seaweed is relatively new and little known. Since seaweed is harvested both from both wild and farmed resources, a joint production standard for seaweed was issued by the Aquaculture Stewardship Council (ASC) and Marine Stewardship Council (MSC) in November 2017 and became effective in March 2018. The SMART-Fish Programme has been involved in the development of this standard since the initial draft discussion, public consultations 1 and 2 as well as the final workshop held in Bali at the end of 2016.

To raise awareness of the ASC/MSC Seaweed Standard, the SMART-Fish Programme and WWF Indonesia in collaboration with MSC and ASC held a 2 days Seminar on 6-7 August 2018 in Jakarta. Entitled “Improving Indonesia Seaweed Competitiveness And Market Access Through Eco-labelling in The Global Market.” The Seminar was attended by around 40 participants including seaweed processing companies, cooperatives, seaweed farmers groups, traders, Assessor Bodies, MMAF, Local Fisheries Office (from Takalar) and seaweed NGOs and programme such as SIPPO, JASUDA, USAID, PRISMA, and Ecoware. SMART-Fish partners attended the Seminar were members of the Indonesian Seaweed Industry Association (ASTRULI) e.g. PT. Agarindo Bogatama, PT. Galic Artabahari, PT. Gumindo, PT. Surya Indolaugas Ospermindo, and Anika Usaha and Makio Dalle Cooperatives.

Patricia Bianchi represented the MSC/ASC Headquarters presented the standards, focusing on the 5 principles of the Standard.

33 Performance Indicators and 70 Scoring Issues that need to be assessed. Ainu Rofiq from Kofiiva was also invited to present the SeaweedTrace as a programme initiated by SMART-Fish.

Ibu Artati Widiarti from MMAF said that she supports any certification scheme that can illustrates the benefit to the stakeholder, includes ASC-MSC, and which can form a selling point for the Indonesian seaweed branding developed by SMART-Fish Programme. However, the challenge is to minimize the cost for certification process, or at the end of the day, the Indonesia seaweed may not be competitive.
Boost Productivity for Tuna Companies with INSPIRED Approach

Twenty five (25) participants from tuna processing companies (canneries, fresh and frozen tuna loin), attended the workshop on the INSPIRED (Integrated Sustainable Productive Resource Efficient Development) approach held from 1-6 July, 2018 in Bitung, North Sulawesi. The participants were all members of AP2HI (P&L Line and Hand Tuna Fisheries Association of Indonesia) from different regions, namely Larantuka, East Nusa Tenggara, East Java, and Bitung.

Facilitated by two SMART-Fish international experts, Dr. Heiner Lehr (Traceability) and Prof Mike Dillon (Productivity), the workshop focused on Productivity and INSPIRED Light Tools (for internal traceability). On productivity, Prof Mike and Dr. Ilham from STP presented the case study from the programme pilot internship in bridging academia with industry to improve productivity through the Kaizen approach, as well as various productivity tools such as OEE. The participants were assisted in identifying the main issues for each company, root causes were explored and were then guided towards developing a simple project charter for continuous improvement.

On the INSPIRED Light Tool workshop, Dr. Heiner Lehr provided technical assistance for AP2HI members in implementing the tool within their companies; this included a practical Excel review with exercises (Formulæ, HLOOKUP/VLOOKUP, Pivot tables, Data models) and the creation of a report which will enable the participants make some adjustment to the INSPIRED Tools based on their business process and existing data record mechanism. On the last day, the experts offered individual consultations for companies who were interested in implementing the tools.

The participants were assisted to do some exercise in identifying main problem in each company.