



Project Title
**Curriculum Development for Sustainable
Seafood and Nutrition Security**

Project Acronym
SSNS

Deliverable 3.1c: Report on Teachers training for Indonesia

June 2020

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Curriculum Development for Sustainable Seafood and Nutrition Security (SSNS)

Report: Teachers Training for Indonesia June 22-26, 2020

Summary

The report covers the activities or information presented during the 5-day training held during June 22-26, 2020 using Zoom online system. The program was organized during only afternoon session i.e. 15:00-18:00 hrs (Bangkok time) to make time convenient for Asian and European partners. Online training was satisfactory as it was able to involve over 50 teachers. In addition, there were 10-15 students and alumni to give their feedback. The training was hosted dividing among all the three Indonesian partners. Indonesia partners presented their curricula, their structure including new and old courses offered, new delivery methods including internship programs incorporated and so on. Presentations by the representatives of private companies offering/asking more students to work for them was very encouraging. They also presented progress of the projects such as accreditation of the new courses developed, status of training programs developed, status of equipment purchasing and so on. More importantly, participants had a chance to discuss about the new curricula and delivery methods, and their effectiveness, and also about the training and internship in detail. In addition, European partners presented about various of ways of teaching and self-learning methods such as group work, literature review, meta analysis, etc. which will be especially useful in the context of COVID19. First four days were presentations by partners and wrap-up of the training, meeting of project to review the progress and planning for the future were done on the final day, and. A detailed daily report is provided.

Minutes of meeting

Day 1

Monday, June 22

Host: IPB (A total of 55 participants jointed the Zoom meeting)

Update on the corona-situation in the partner countries!

15.00-15.10 Welcome address by IPB Dean of FPIK (Faculty of Fisheries and Marine Sciences) by Luky Adrianto

The Dean highlighted that the SSNS program is important and contributes to solve the challenges of nutrition security at the national level in Indonesia

The corona situation has led to a situation where online learning platforms and digital teaching is required. All lectures the summing semester at HIB will be digital. Establishing an VLE-platform is one of the main goals in the SSNS project.

15.10-15.30 Progress of SSNS program and progress on indicator metrics was presented by Project Coordinator Dr. Ram Bhujel:

WP1: Identifying critical criteria to develop an MSc curriculum to meet challenges related to sustainable seafood and nutrition security in Southeast Asia, including a short description on gap analysis done in Indonesia

WP2: Study visits to Europe, new courses established, improved courses and internship placements established. VLE-platform established

WP3: Teacher training in Vietnam and Thailand

Nine centers are established in Asia (at all Asian university partners) the centers are important to support the Faculty, master programs and research activity.

15.30-16.30 Presentation of - IPB_The existing curriculum of Aquatic Product Technology (Dr. Uju Sadi/Dr. Wini Trilaksani)

IPB: Graduate program was established in 2005.

There are 9 Faculties and 3 schools

- No. of Prof. = 6
- No. of lecturers with PhD = 18 and with MSc = 3

Department of Aquatic Product Technology at the Faculty of Fisheries and Marine Sciences host three study programs:

- Bachelor (354 students)
- Master (28 students)
- PhD established 2020 – no students yet.

Curriculum of Master program of aquatic product technology:

Aquatic bioresources

Seafood enzymes

Marine Natural products

Marine Biotechnology

Seafood Processing Technology

Green and Zero Waste Production

Seaweed Biorefinery

Aquatic Product Bioanalysis and Biomolecular

Aquatic Product Standardization

The structure of the master program and a list of the elective courses are given in Figure 1. On average 15 students are enrolled per year.



Figure 1: Master program of Aquatic Product Technology and list of elective courses

The mean time for graduates to get a job is 3 months and are they are employed as lectures (50%), entrepreneurs and others (18%), at government office (11%), researchers (7%) and at private companies (14%). Accreditation (total credits of curriculum, credits given per course, accreditation progress etc.) Proposed MSc curriculum development Present the whole structure of the curriculum (how many courses, weeks per course, lab session, field work, internships etc.) (Dr. Ruddy Suwandi). IPB-SSNSs achievements is given in the Figure 2:

Figure 2: IBM-SSNSs achievements

FAKULTAS	WILAYAH
Widyaiswara	<ul style="list-style-type: none"> • WPT telah report (substitusikan) of existing committee of MSc (regenerasi and VET courses) • WPT Study Visit to STPM and UIN of Negeri • WPT is member of 3 college of Training and 2 MA of Knowledge program all related to SSNS • WPT in progress (Accreditation and SSNS Center)
Quality of the Project Implementation	<ul style="list-style-type: none"> • IPB's teachers had learned and understood in such a depth about teaching and learning process, which will have big impacts on our teaching career as well as, for the sake of our respective institutions • Impacts already can be seen in the course contents we have developed (in courses). Hopefully, we will apply as much as possible while teaching.
Quality of Curriculum	<ul style="list-style-type: none"> • IPB (PA) had the most successful gap analysis (WPT) for Indonesia • IPB (PA) members (Dr. Muli Nurhidayah, Dr. Anandani, Abdillah, Dr. Rizki Sugilana) have passed English journals on writing 3 chapter of AI & Capaian (and Security) book to be published by TM Company.
Management of the Grant	<ul style="list-style-type: none"> • Financing through university bank account with (IPB's) Bank • We have received the third installment.

The new curriculum for the Aquatic Product Technology Master program is given in Figure 3.

Master Program				
Number	Code	Name	Prerequisites	Credits
1	THP511	Concepts of Aquatic Product Processing	None	3(3)
Bachelor Program				
Number	Code	Name	Prerequisites	Credits
1	THP511	Aquatic Product Systems	Mathematical Biology	3(3)
2	THP511	Development of Aquatic Products	Mathematical Biology	3(3)
3	THP511	Aquatic Product Marketing and Management System	Marketing and Management System of MS and Product	3(3)
Newly Proposed Bachelor Course				
Number	Code	Name	Credits	
1	THP511	Introduction and Fundamentals	3(3)	
2	THP511	Industry	3(3)	

Figure 3. Aquatic Product Technology Master program

Highlights of the changes done in existing subjects as a result of the SSNS-project is given below (Figure 4-7):



Figure 4. Changes in the course THP614.



Figure 5. Changes in the course THP511.



Figure 6. Changes in the course THP512.

THP 512 Project	THP 513 Project
<p>Objectives:</p> <ul style="list-style-type: none"> • Develop a sustainable and innovative fish product • Design a fish product • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety 	<p>Objectives:</p> <ul style="list-style-type: none"> • Develop a sustainable and innovative fish product • Design a fish product • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety • Evaluation of fish product quality and safety

Figure 7. Changes in the course THP513.

Two new courses developed based on the gap analysis:

- Fish quality and traceability
- Seafood safety

Three training courses has been developed:

- Training on sensory Fisheries Product Evaluation
- Seafood safety (Lectures -6 hours, Practical 14 hours)
- Sharks-authentication and traceability (Lectures 6 hours, Practical 15 hours)

Three internship placements are established:

- PT Laju Banyu Semesta
- PT Kurnia Mitra Makmur Purwakarta
- Seafarming: Center for costal and Marine Research Studies

A research center of excellence sustainable seafood and nutrition security (SSNS) is established.

16.30-18.00 Discussion (lead by the Project coordinator (Dr. Ram Bhujel/ EU):

Does the MSc structure fulfill the SSNS goals the Erasmus+ requirements for Curriculum Development?

Sustainability and human nutrition should be addressed clearer in learning outcomes and course titles. Some suggestions from the discussion is listed below.

- Human nutrition and sustainability are included in course Aquatic bioresources (THP511), however the focus should be emphasized more clearly. One suggestion was to change the course title, e.g. Aquatic bioresources and sustainability
- Could the new course Fish quality and traceability include nutrition aspects?
- Seafood enzymes (THP512) course: Can the course learning outcomes and title reflect the SSNS project better? Can utilization of rest raw material be included? How can utilization of peptide and amino acids from rest raw material be improved by using marine enzymes? Using the whole fish (both the main product e.g. the fillets, and the rest raw material e.g. viscera, spine, blood etc) is important to increase the sustainability of both aquaculture and fisheries. Better utilization of harvested biomasses is sustainable!

Does the MSc curriculum implement the Gap Analysis (WP1)?

Two new courses developed based on the gap analysis:

Equipment – a video camera has been purchase, others have not been done yet due to COVID19, most of the things are stuck.

Training:

- Fish quality and traceability
- Sharks-authentication and traceability
- Seafood safety, e.g. course include detection of Salmonella with PCR

A training was organized for a group from Timor Leste and more trainings are planned and will be done in August.

Internship:

No students have done internships so far.

A plan for the internship must be made soon as possible!

Discussion with teachers what improvements/impacts in teaching methods/material use etc. they have implemented to make more effective delivery

- Old habits are difficult to change! Lectures with Power Point presentations is still used to a high extend.
- Based on inspiration from the study visits and discussions in the SSNS project some new activities are included, e.g. case-studies from the industry are implemented. Cases are discussed in groups and students present their work in plenary.
- Field visits are included. Budgets for field visits are very limited. Primary target for field visits has previously been bachelor student, however visits can also stimulate learning for master students.
- Academic writing is encouraged, e.g. writing scientific papers.
- A digital learning platform is commonly used at the university (not the VLE -system from SSNS)

Accreditation: Is it sound? Could it be a unified accreditation for all proposed MSc in all SSNS Centres?

- All existing courses are accredited, but new courses will be accredited next year.

Day 2

June 23, 2020

Report prepared by

Ioannis Karapanagiotidis, Konstantinos Polymeros, Ioannis Boziaris, Sofia Kessopoulou, University of Thessaly, Greece (UTH)

The meeting was conducted online via Zoom:

<https://zoom.us/j/93490506672?pwd=NjlaUINndkVjQmdUVUZtc2V5SWdIZz09>



- The project Coordinator Dr. Ram C. Bhujel initiates the programme
- Miss Rohana Hidayati, PhD student from University of Gadjah Mada (UGM) is introducing the speakers

Welcome speech: Professor Panut Mulyono, Rector of University of Gadjah Mada

The Rector of University of Gadjah Mada warmly welcome the SSNS group and spoke briefly about the University (<https://www.ugm.ac.id/en>). University of Gadjah Mada was officially established on December 19, 1949 as a national university. Considered as one of the oldest universities in Indonesia, University Gadjah Mada serves as a pillar of educational awakening in Indonesia, and purports to be a defender and disseminator of Pancasila. When it was founded, University Gadjah Mada only had six faculties. Now, University Gadjah Mada has 18 Faculties, one Postgraduate School (S-2 and S-3), and one Vocational School. University Gadjah Mada is one of the oldest universities in Indonesia, located at the Bulaksumur Yogyakarta Campus. Most of the faculties in the University Gadjah Mada consist of several departments and study programs. The academic activities of University Gadjah Mada are expressed in the form of the cornerstones of Tri Dharma higher educational values consisting of Education and Teaching, Research, and Community Service. Total students are 60,000 and ranks as #1 in Indonesia.

Professor Panut Mulyono also speak about the role of global fisheries and aquaculture in providing sustainable food security for people and highlighted the role of SSNS project that will offer a better linkage, collaboration and friendship among its partners. Professor Panut Mulyono wished for a fruitful meeting.

Introduction of the Department of Fisheries of UGM Dr. Ir. Murwantoko, Head of the Department.

The Department of Fisheries, one of the latest study program introduced in Faculty of Agriculture of Universitas Gadjah Mada, was established in 1963/1964 as Fishery Section and changed into Fishery Departement in 1983. Since then, Department of Fisheries actively contribute to the development of fisheries sector, regionally and nation-wide. Throughout the years, Department of Fisheries has conducted various researches in aquaculture, management of resources and socio-economy, as well as fisheries product technology development. Currently, Department of Fisheries offers three study programs: Aquaculture, Management of Fisheries Resource, and Fisheries Product Technology. In aquaculture, researches have been conducted in several topics, such as development of high quality Tilapia, aquarium fish, and vaccine for bacteria and viruses for Grouper fish, bacteria with probiotic property, and bioactive substances derived from marine organisms. In recent years, management of resources and socio-economy studies has also been conducted, particularly in ecology, conservation, and fishing management in coastal area. Moreover, Department of Fisheries has been developing fish processing technology, such as nugget processing, fish sauce, surimi, smoking of catfish, etc.

The Department of Fisheries has 30 academic staff and consists of the following Laboratories:

- Laboratory of Aquatic Ecology
- Laboratory of Genetic and Breeding
- Laboratory of Aquaculture
- Laboratory of Fish Pests and Disease
- Laboratory of Fishery Product Microbiology
- Laboratory of Fish Nutrition
- Laboratory of Fishery Products Processing
- Laboratory of Hydrobiology
- Laboratory of Fishery Socio-Economy Study
- Laboratory of Fishery Resources Management
- Laboratory of Equipment and Fishing Method

Presentation of M.Sc. Study Program of UGM Dr. Alim Isnansetyo

Dr. Alim Isnansetyo at the beginning he mentioned all the achievements made to the MSc Study Programme through the SSNS project and then described the whole structure and accreditation of the curriculum. The MSc has at least 40 credits in total with the compulsory subjects accounting for 12 credits, the non-compulsory for 15 credits, the seminar 1 credit, while the thesis takes 8-12 credits (Fig. 1).

Structure of MSc of UGM

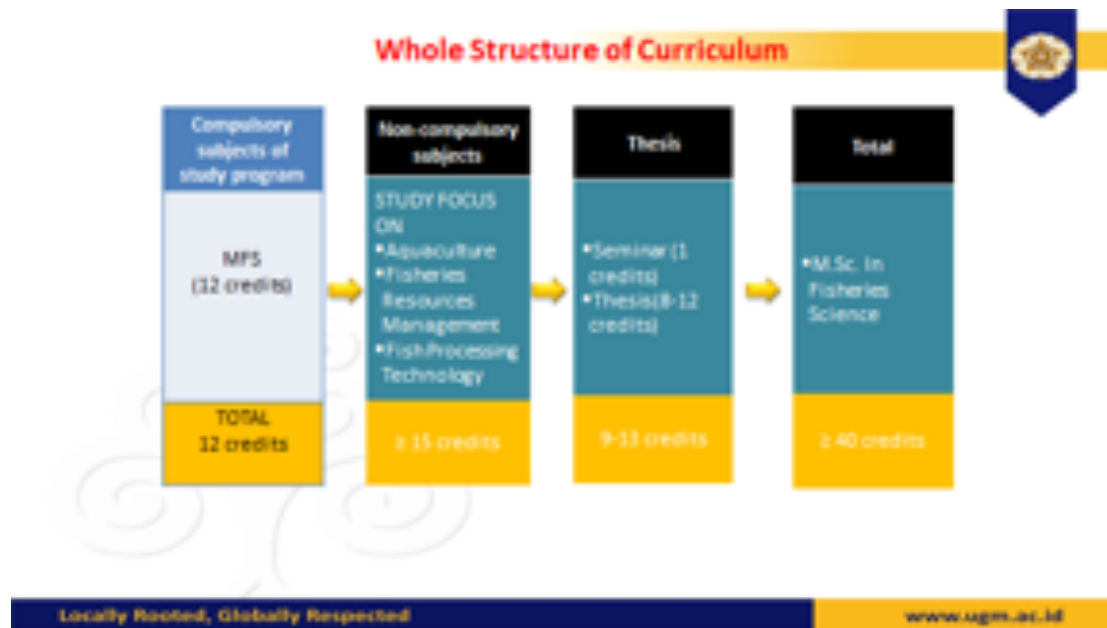


Fig. 1. The accreditation of the MSc programme at UGM.

Figures 2 show the detailed structure of the MSc programme at UGM.

Compulsory subjects

No	Subject	Code	Credit
1.	Tropical Aquatic Bioresources*	PIP 5141	3
2.	Aquatic Biochemistry	PIP 5181	3
3.	Fisheries Economics	PIP 5171	3
	Sustainable Seafood and Human Nutrition**		2
4.	Fisheries Biotechnology	PIP 5221	3
5.	Research Methodology	IPK 5201	3
Sub Total			15
6.	Seminar	IPK 6002	1
7.	Thesis	IPK 6003	8-12
Total			24-28

* Developed; ** New

Locally Rooted, Globally Respected www.ugm.ac.id

Elective courses of Aquaculture

No	Subject	Code	Credit
1.	Design and Construction of Aquaculture	PIP 5111	3
2.	Fish Reproduction Physiology	PIP 5122	3
3.	Bacterial Fish Diseases	PIP 5131	3
4.	Viral Fish Diseases*	PIP 5132	3
5.	Bio-Environmental Aquaculture Engineering	PIP 5212	3
6.	Feed, Bioenergetics and Fish Growth	PIP 5251	3
7.	Fish Immunology*	PIP 5233	3
8.	Smart and Environmental Friendly Aquaculture**	PIP 52xx	2
9.	Fish and Environmental Health Management	PIP 5234	3

* Developed; ** New

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Elective courses of Fisheries Resource Management

No	Subject	Code	Credit
1.	Fisheries Oceanography	PIP 5142	3
2.	Fisheries Stock Assessment	PIP 5161	3
3.	Fisheries Products Marketing	PIP 5172	3
4.	Fisheries and Marine Policy	PIP 5173	3
5.	Sustainable Fisheries Governance	PIP 5262	3
6.	Conservation and Management of Aquatic Bioresources	PIP 5263	3
7.	Coastal Community Organization and Institution	PIP 5274	3
8.	Atmosphere-Ocean-Ecosystem Interaction**	PIP 52XX	2

* Developed, ** New

Locally Rooted, Globally Respected

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Fig.2. The structure of the MSc programme at UGM.

Elective courses of Fish Processing Technology

No	Subject	Code	Credit
1.	Functional Properties of Fisheries Products*	PIP 5191	3
2.	Design of Fisheries Industry	PIP 5192	3
3.	Quality Management of Fisheries Products	PIP 5193	3
4.	Waste Control of Fisheries Industry	PIP 5281	3
5.	Technology of Fermented Fish Products	PIP 5282	3
6.	Molecular Technique in Fisheries Industry	PIP 5283	3
7.	Fisheries Product Development	PIP 5294	3
8.	Development and Economic Valuation of Fisheries Product*	PIP 52xx	3


* Developed, ** New

Locally Rooted, Globally Respected

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Fig 2. (cont.)

In total 4 courses have been reformed-improved-developed through the SSNS project such as “Tropical Aquatic Bioresources”, “Functional Properties of Fisheries Products”, “Viral Fish Diseases”, “Fish Immunology”, while 3 new courses were developed such as “Sustainable Seafood and Human Nutrition”, “Atmosphere-Ocean-Ecosystem Interaction”, “Smart and Environmental Friendly Aquaculture”. These are all presented in Fig. 3.

Summary of courses related to SSNS Project 

No	Subject	Code	Credit	
1.	Tropical Aquatic Bioresources*	PIP 5141	3	Delivered
2.	Sustainable Seafood and Human Nutrition**	PIP 51xx	2	Approved
3.	Development and Economic Valuation of Fisheries Product*	PIP 52xx	3	Delivered
4.	Functional Properties of Fisheries Products*	PIP 5191	3	Delivered
5.	Atmosphere-Ocean-Ecosystem Interaction**	PIP 520X	2	Approved
4.	Viral Fish Diseases*	PIP 5132	3	Delivered
6.	Fish Immunology*	PIP 5233	3	Delivered
7.	Smart and Environmental Friendly Aquaculture**	PIP 52xx	2	Approved

* Developed, ** New

Locally Rooted, Globally Respected www.ugm.ac.id

Fig. 3. Improved/developed and New courses of the MSc programme after suggestions via SSNS project.

Teaching and Learning Methods

Dr. Alim Isnansetyo also spoke about the Teaching and Learning Methods that after the visit of UGM staff in European HEIs they have incorporated in their teaching tools. These include lectures, projects, site visits, assignments, seminars, presentations etc. Each course is delivered by a teaching team of 2-3 teachers for 12-14 weeks including midterm and final examination. Teaching methods include lectures, guest lecture, case study, journal review, discussion. Learning methods include assignment, field visit, presentation, journal review, mini project. There are several platforms used by UGM for teaching and learning:

- Simaster (Sistem Informasi Terintegrasi/integrated Information System) UGM (<https://simaster.ugm.ac.id/event/event/>) since 2017 (Fig. 4)
- eLisa (eLisa (eLearning System for Academic Community) UGM <https://elisa.ugm.ac.id/welcome> (Fig. 5)
- eLOK (eLearning: Open for Knowledge sharing) <https://elok.ugm.ac.id/> (Fig. 6)



Fig. 4. Simaster platform <https://simaster.ugm.ac.id/event/event>



Fig. 5. eLisa platform <https://simaster.ugm.ac.id/event/event>



Fig. 6. eLOK platform <https://simaster.ugm.ac.id/event/event>

Accreditation

- Total credits of curriculum (excluding thesis):
 - Focus on Aquaculture : 40 credits
 - Focus on Fish processing Technology : 37 credits
 - Focus on Fisheries Resources Management : 37 credits
- Credits given per course : 1-3
- Accreditation :
 - All developed and new courses are approved by dean
 - All developed courses are delivered
 - All course (except new course) are approved by rector (No: 644/P/SK/HT/2015)

- All course (except new course) are approved by BAN-PT (National Board for Accreditation of Higher Education) through Master Program Accreditation (No: 2260/SK/BAN-PT/Ak-SURV/M/VI/2017)

Evaluation and Scoring

Examination: Midterm and final examination

Other methods of evaluation : individual or/and group assignment, individual or/and group presentation, class discussion, pre-test/post-test, quiz

Grade	Lower Point	Upper point
A	81	100
A-	77	80
A/B	73	76
B+	69	72
B	65	68
B-	61	64
B/C	57	60
C+	53	56
C	49	52
C-	45	48
C/D	41	44
D+	37	40
D	33	36
E		<33

SSNS centre

Dr. Alim Isnansetyo also spoke about the establishment of SSNS Centre during the SSNS project.: <http://seafoodcenter.faperta.ugm.ac.id/>

The world's demand for animal based-protein are growing and continuously increasing every year corresponding to the growing of world's population. Meanwhile, the support of terrestrial animal to fullfill the growing demand of animal based-protein source is gradually insufficient as a rapidly decreasing of farmland due to the land function shifting. Fisheries smart eco-bioproduction is expected to take over the significant role of providing high quality protein source, from seafood and other marine natural resources, to fullfill the world's population requirement for food and nutrition intake. Therefore, the exploration and utilization of fisheries and marine natural resources need to be optimized. However, this effort must comply with the principle of preservation, conservation, and rehabilitation through the ecosystem approach to ensure the security and sustainability. Moreover, the environmental degradation caused by the global climate change and pollution have raised

threats for the quality, security, and sustainability of seafood. Therefore, **establishment of The Center for Seafood Security and Sustainability is expected for accommodating ideas, innovations and creations, as well as researches that lead to the contribution for global seafood security and marine natural resources sustainability.** This center is also expected to support the community empowerment by conducting training programmes of applicable technologies directly guided by the experts in their fields.



Fakultas Pertanian Dirikan Centre for Seafood Security and Sustainability

Friday, 05 July 2019 09:56. 0 views



Departemen Perikanan Fakultas Pertanian UIN Ar-Raniry mendirikan pusat for seafood security and sustainability, Sabtu (3/7/2019). Foto: an-nadwa.com

Vocational Education Training

During the SSNS project, in total 3 VET courses were developed:

- Basic Molecular Biology
- Kappaphycus alvarezii* Farming: Seedling and Cultivation
- Fisheries Product Development : Fish Gel Products

6 hours lecture and 26 hours lab work in DNA extraction, PCR and barcoding analysis of aquatic plant



Photos for the VET course at UGM.

Internships:

During the SSNS project, in total 3 Internships were developed:

- Fish Diseases Monitoring
- Monitoring Quality Control and Safety in Fishery
- Navigation

Partners:

- Fish Quarantine and Fisheries Product Control Stations
- Agency for Quality Control and Safety of Fishery Products
- Local or Nasional Fish Port
- Small and Medium enterprise/companies
- Private companies

Duration : 80 hours

Monitoring and evaluation: check and assessment by partner, report, presentation/examination

Learning outcomes: Improving knowledge, soft and hard skill

Official agreements: MoU is available

Discussion with SSNS Partners

After the presentation of MSc Programme, VET courses and Internships at UGM the Project coordinator Dr. Ram Bhujel organized a discussion with all partners. The project coordinator and EU partners agreed that the course outline is clear and well organised and

there were improvements and new established courses as an output of SSNS project. There were questions from EU partners about the large number of platforms used for teaching that might be confusing to students given that VLE platform was also established. Dr. Ratih Adharini and Dr. Alim answered that students are familiar with the use of platforms. There were also questions about the training programme and internships and if there is a need for official approval at present. UGM partners clarified that internships were actually established after the suggestions made by SNSS project and there is an increasing number of students attending internships year by year. There were clarifications about how the internships are incorporated in each course.

There were questions about the lessons learned from European HEIs visits, and Dr. Murwantoko and Dr. Sita Budhiyanti described that they have incorporated many teaching tools that were not practised before and make students more active such as reviewing journals, quiz and case studies, field trips to industry and fish markets, feedback reports and presentations etc. There were also questions about the structure of MSc programme that for example there could be courses that can be highlighted such as marketing, economy, entrepreneurship etc. that could help students for finding a job after. Dr. Alim presented some data about students that found a job after completing the course.

There were also questions if they are invited teachers from other Indonesian universities or abroad and indeed there were some invitation mainly providing VET courses. Also, there was a discussion about how students select the topic of their MSc thesis and research with European partners describing the processes that are implemented in their Universities.

Discussion with M.Sc. students for UGM and IPB Universities

In total 52 students were connected to the online meeting and many of them participated in the discussion. For UGM, Mr. Triko Aditama expressed his impression about the course and mention that are a lot of discussion within the classroom, the lectures use new teaching tools, are very explanatory and encourage students to communicate with others. He mentioned that he would like to have the opportunity to travel to other countries and universities as an exchange student. Miss Khusnul Alfionita mentioned that she took new knowledge and specifically about molecular identification techniques in the lab. Also, the case studies helped her to have a deeper knowledge and she would like to have more training on aquatic fish product development. Mr. Riza Yuliratno Setiawon also was positive for the course.

From IPB University, Miss Ewi Passaribu mentioned that students are very positive for the course provided at IPB. Mr. Giri Rohmad Barokah mentioned that the course is very interesting and he liked the reviewing journals method and seafood identification techniques. He also mentioned that he learned new things and improved his bachelor knowledge, while at the postgraduate level there were courses/lectures such as Seafood Security, Seafood Nutrition, Seafood Sustainability that were not highlighted at the undergraduate level. Mr. Hanya Bimasuci W. was also impressed about the training with molecular techniques, while Miss Nurviana Wulandari and Miss Rohana Hidayati mentioned that the courses gave them a good scientific background for research.

Wrap-up of the day

At the closing a review of the day activities, highlights and conclusions took place, while the activities of the following day were presented.

Day 3 June 24, 2020

Hosted by IPB, Indonesia

No. of participants: Initially 45 and later reached to 49

June 23: <https://zoom.us/j/93490506672?pwd=NjlaUlNndkVjvQmdUVUZtc2V5SWdlZz09>

14:45 – 15:00 Meeting started with review of previous day and other warm-up and preparation.

15:00 – 15:10 Welcome address was given by Dr Bambang Suprakto, PhD, FRINA, Chairman of Agency for Marine and Fisheries Research and Human Resources, Ministry of Marine Affairs and Fisheries, IPB.

IPB Presentation by Roni, Mala, Dr Sinung Rehardj.

The university is focusing on four major areas;

1. Fishing,
 2. Machines/machinery
 3. Processing and
 4. Aquaculture
- While doing curriculum development, involvement from industry and the ministry/government - officials were regarded as external experts.
 - Internship – incorporated developing new for the first time and at least 3 programs / hosts
 - Suitable timing between 1st and 2nd semesters.
 - Length = 1 month
 - The internship is incorporated as vocational education system – Teaching Factory Approach week 1-5. Participants have to submit a business plan, a report, feasibility study, factory profile, there is evaluation by group and individual performance basis.
 - Students pay themselves for travel, and accommodation if necessary to stay.
 - Assessment 40% by supervisor1 at University, 40% by Supervisor2 at Factory, and 20% for presentation.

15.10-16.10 **JPU - Presentation** of the proposed MSc curriculum development. By Dr Ilham.

- JFU name has been changed to JTUF – Jakarta Technical University of Fisheries
- Presented the whole structure of the curriculum.
- All courses have been accredited and offered which are already in the brochure.
- SSNS Centre: **IPRIDE** - Fish established.
- Equipment – was under process but delivery was not possible due to COVID19.
- Vocational training – courses developed but not yet offered.
- Existed, updated and new courses (new courses based on the gap analysis?)
- Teaching methods (any new methods that have been used etc.)
- Accreditation (total credits of curriculum, credits given per course, what is the accreditation progress etc.).
- **Internships** programs – organized for 1 month in new MSc program and beneficial for both sides.

16.10-17.00 Discussion (lead by the Project coordinator (Dr. Ram Bhujel/ EU)

Discussed with with past/new MSc students of JFU about their experience on the course – their responses are as follows:

Luchiandini, former student – internship was good, got the topic for research during internship when exposed to the real world.

Fardiana – did 1 month internship on seafood safety,
Ivonda – also did 1-month internship and said it was good and helpful.
Atfan - also did 1-month internship and said it was good and helpful.

Mike, Coordinator of Internship program at JFU/JTUF – talked about internship who was the coordinator for developing and implementing all internships, who has experience since 1984.

17.00-18.00 Special presentation about Teaching method –by Anita and Jorgen from NTNU

- NTNU has 5 months internship – which means, 1 month organized by Indonesian partners seems to be little short.
- It should be students active or self-learning while exposing to real world.
- It should enhance employability of the students after graduation.
-
- The project team discussed about COVID19 which has created new situation in which importance of online and VLE system have been realized. Even when new normal situation may resume, the online system should be continued and less and less face-to-face teaching/learning should be adopted.
- NTNU applies several ideas e.g.
 - o Giving students to read scientific papers – learn how to write and also review critically
 - o Group work
 - o Online
 - o Theoretical subjects are easier to do online, practical work is a challenge
 - o Giving students with data or sources of data for meta analysis and publication
 - o Any other sources of data can be given and ask them to synthesize
 - o Literature review to extract data / information
 - o Can be provided with videos e.g. to see / describe animal behavior, farming methods, etc.

Day 4 **June 25**

First part was presentation by internship hosts. There were four hosts presenting some interns opportunities at their farm/factory or stations where students do work internship before thesis research starts to get exposure so that they can find a topic for research out of a number of problems encountered by the farm or the industry. Normally, internship can be 1-3 months either between semester 1 and 2 or after 2nd semester just before thesis research.

An Eel farm, a company started by the JFU graduate, Eel culture and its processing was highlighted. So far, eel has not been bred artificially, it breed naturally and fingerlings were collected for culture in RAS. Restocking eels back to nature have been carried out to generate the sustainable eel culture. Training and technical support have been conducted for farmers. No on-farm accommodation is available in this farm for intern students. Up to 5 students/batch are accepted for the internship. Three-month internship work at the company is required.

IWA-KE, a new form of ethical fish-farming, collaboration with Jakarta Fisheries University. The whole concept was aimed to produce fishes with better quality without antibiotic residue: consumers will receive products that are safe to consume and healthy, in addition to the guaranteed delicious taste. The project creates and maintains social impact in their business activities. Empowered local farmers, connecting farms with people, together growing the future are the image of this project. This place accepts 10 – 15 students for

internship. Three- month work at the company is required. After that, the student may continue the work in university lab to solve problems found during the 3-month internship.

CJ Feed & Care - a Korean company looking for more collaborations with universities. This feed factory produces differentiated feed products and provide technical services on customer needs. They produce both shrimp and fish feeds. Floating and sinking feeds are available for fish. Various sizes of crumble and pellet feeds are produced for each particular stages of shrimp. Aqua Research Farm as well as lab and disease monitoring are accessible for farmers and intern students. Research are collaborated with UGM.

A Sea Farming stations, IPB University, are the examples of internship placements for Indonesian partners. The major economically aquatic animals include grouper, Vannamei shrimp, and lobster. However, it was found that all 15 students had to work on the same task at the same period. It is recommended to split the students into small group of 2, so each student can engage more in the tasks.

This shows that internship has been one of the essential parts of the Master's degree program. Normally, internship is considered for BSc level but now it has been agreed to include MSc degree as well so that students feel they get enough exposure which is required to identify the problem of the real world and design a thesis research to make it directly relevant. Once learning by doing and research is made relevant, program will be meaningful and attractive which should help solve the problem of low enrollment and the human resources for the sector. That is the main objective of the SSNS project. Internship is the important tool for knowledge and technology transfer between private sector and academic institutions. The private company working with universities can get a benefit for marketing platform and tax reduction. Generally, companies that have trained some student during internship are able to cut down a probation period because interned students are usually ready-to-work. Internship is not only for newly graduate but also it is needed for a people who work for universities and government and need to update the current situation and technologies. Internship can highlight the master's program more attractive. However, the contract should be signed to make sure what roles and responsibilities of students, supervisors, and lecturers. Living cost, room and board, as well as travel cost for Internship in Indonesia are responsible by students.

The second part of the training was about virtual learning environment (VLE) which has been compulsion due to COVID19. SSNS VLE platform is a web-based platform created using Moodle program and developed for the use of MSc curricula developed for Sustainable Seafood and Nutrition Security (SSNS) program. The platform allows collaborative interactions between teachers and students to communicate i.e. uploading teaching and learning materials by the teachers, giving assignments, schedule an events, develop, and a personalized e-learning platform such as scoring and giving grades and so on. It also allows to share materials among the teachers of all the university partners. Teacher and student manual are available on <http://ssns-vle.eu/>. Some courses are created. The sustainability of the platform is questionable because the platform will last for only 2 years after the project end.

Day 5 Friday 26th June

Agenda

15.00-15.30 Review/wrap up of past 4 days activities.

15:30 – 16:30 Discuss and make clear EU requirements and our progresses: (by Project Coordinator) such as:

- *QUALITY ASSURANCE. e.g. how to assure that the SSNS is of high quality, what are our indicators/standards*
- *SUSTAINABILITY – e.g. demonstrate that SSNS project is sustainable in human resources, at institutional level, financial viability etc.*
- *IMPACT – monitoring of SSNS impact, links of SSNS with society*
- *Accreditation: Could it be a unified accreditation for all SSNS Centres?*
- *SSNS Centre - where/office and how this will be established/operate in each Asian partner*

16.30-17:45 Project meeting – Report of activities by each Asian Coordinators and future plans

17.45-18.00 Closing

How has this week gone?

First day was IPB, second day was UGM, JFU and then private sector presenting about internships with partners in Indonesia.

Positives:

There have been significant improvements as we have gone from training session to session and have included more things. Indonesian partners shared a lot of useful information about their teaching and internships.

Lots more people being able to take part if you have meetings online.

Really good discussion about structure and overview, so although detail might have been missing this discussion was good.

Negatives:

Perhaps we could have more focus on sustainability of the courses because most people have courses related to teachers' scientific background but it would be good to put these inline with sustainability. Don't just focus on new products, focus on new products that are sustainable.

How has this week benefited the teachers in Indonesia? Did we learn more from them? Has online changed that. Working online has lost opportunity to work in **small groups** and to give feedback to the teachers. This has been lost compared to Vietnam and Thailand. We could have done that online but it is more difficult and being online means it is difficult to concentrate on the meeting with other things in the background.

EU requirements and our progresses

Groups have followed guidelines to develop courses. Not all courses have internships yet. Ram presented on this.

We looked at course outlines. There have been lots of changes in the modules both in content and in what the courses actually are. Every teacher should update the outlines and check for any mistakes and then upload them to the google file then a group of

experts (particularly European partners) will go through these outlines and ensure they are of good quality.

Change the names to that they are of format partner number Px, three letter code for institution and then your codes if they are accredited. If they are not accredited then put XXXX

e.g. P10-JFU-XXX

Partners need to put the updated courses for Masters courses and VET courses into the new course folders. Check an earlier email from Ram. google SNSS>WP2 development>D2.5 MSc Course outlines new

Internship details also need updating and are filed in the delivery folder and then the internship folder and then a new folder for the updated versions.

Deliverables:

ID	Indicator description	Indicator	Target	Achieved to Date	% Achievement
1	No. of professionals involved in the	DAE	80	112	140%
2	No. of new/updated MSc courses	MSc Courses	30	34	113%
3	No. of VET courses	VET	27	21	78%
4	No. of participants: Risk off training	No. of Participants	26	26	100%
5	No. of study/training visits: Europe	EU-Trip	7	7	100%
6	No. of participants EU-Trip Participants	EU-Trip Participants	30	30	100%
7	No. of conference paper presented	Papers	30	7	23%
8	VET Participants (students)	VET users	80	22	28%
9	No. of 10 Courses established/updated	1010 Courses	0	0	0%
10	No. of companies involved in training	2016	81	80	99%
11	Amount of students taking new courses	Students	80	28	35%
12	Amount of students doing internships	Interns	30	28	110%
13	No. of professionals trained	VET Trainers	800	80	10%
14	No. of website courses	Web sites	1,000	110	11%
15	No. of teachers involved (Partners)	Partners	1,000	800	80%
16	No. of formal group members	Formal members	2,000	800	40%
17	No. of entities gathered		0	0	0%
18	No. of final conference participants		800	0	0%
19	No. of projects in final Conference		800	7	1%
20	Total beneficiaries (staff/students)		11,211	2,344	21%

We have met some deliverables but need to increase conference attendance and students engaging with the VLE. Could partners update the numbers in the spreadsheet through the google drive.

Ram showed us how the google drive is organised to help people to navigate to the right folders

We can look at running training online at the moment if it is appropriate. Partners can explore training topics, they need to run a minimum of 3 but can do more, it is a possible source of income.

We looked at webpages to demonstrate how the Centres established by each partner could advertise training, internships etc. and how things should be included under the Centres. These activities would then be included under the SNSS webpages, centres will all link to one another to improve the network. <https://www.seafood-security.org/> For internships we need proof of collaboration with the private sector (we need to reach 45 private companies ~5 per partner). Also need to develop agreements with the project partners and rules and regulations for students. Also need to think about risk

assessments- they don't have them in AIT. Can we add a clauses to the agreements with companies or have separate guidelines for students to read.

Quality assurance: we are planning already to check course outlines to achieve this.

Sustainability: maintain centre and centre homepages and offer training courses to help income, internships also run under the centre and have Centre Director. Masters will continue once they are set up. Once you generate income could request more positions.

Impacts:

We need to meet the indicators to show how many people we have reached. How many new trainees there are. Have there been an increase in students on masters courses? If trained farmers have used knowledge to increase income then that is impact – but how do we evidence that? If other people want to develop a course in the same way as we have then that in impact. Need to compare with what happened before the project. Express impact at different levels Far reaching impact is how aquaculture becomes more sustainable but cannot show that

Academic: courses run, people trained, techniques shared with other student impact- what jobs are they going on to
company impact: have internships helped companies
and societal impact- number of new partnerships with industry
Need to collect evidence.

Accreditation:

Masters courses are done already for some universities. If they have not yet been accredited done, can we have a timeline please.
For training and internships it depends on what level of approval you need. These are less likely to need university approval. Give participants certificate of attendance signed by head of department etc. Some might need to be signed by another authority. Make sure we follow guidelines of the appropriate ministry. Are these approved to carry on beyond the lifetime of the grant.
Could also join ASEAN 10 as part of accreditation process. You can apply to be a member. They have annual conferences.

SSNS centres;

Need some people assigned as centre director formally. Need letters of accreditation from rector etc. Some physical office space can be assigned to the centre. New equipment bought for learning and teaching belongs to departments but should have the project logo on it.]

Remaining activities

Ram presented the remaining activities that project has to accomplish which are given in the able below:

Remaining activities / deliverables	Deadline	Responsible
A2.4 Final pedagogical tools (WP2)	30/09/2020	Ioannis
A2.6 Teacher's guide-book (WP2)	30/09/2020	Jorgen
A2.7 Final evaluation of the project (WP2)	30/09/2020	Ram
A2.8 Final report (WP2)	30/09/2020	Ram
A2.9 Final conference (WP2)	30/09/2020	Ram
A2.10 Final dissemination (WP2)	30/09/2020	Ram
A2.11 Final impact (WP2)	30/09/2020	Ram
A2.12 Final budget (WP2)	30/09/2020	Ram
A2.13 Final financial report (WP2)	30/09/2020	Ram
A2.14 Final project closure (WP2)	30/09/2020	Ram
A2.15 Final project evaluation (WP2)	30/09/2020	Ram
A2.16 Final project impact (WP2)	30/09/2020	Ram
A2.17 Final project dissemination (WP2)	30/09/2020	Ram
A2.18 Final project impact (WP2)	30/09/2020	Ram
A2.19 Final project impact (WP2)	30/09/2020	Ram
A2.20 Final project impact (WP2)	30/09/2020	Ram
A2.21 Final project impact (WP2)	30/09/2020	Ram
A2.22 Final project impact (WP2)	30/09/2020	Ram
A2.23 Final project impact (WP2)	30/09/2020	Ram
A2.24 Final project impact (WP2)	30/09/2020	Ram
A2.25 Final project impact (WP2)	30/09/2020	Ram
A2.26 Final project impact (WP2)	30/09/2020	Ram
A2.27 Final project impact (WP2)	30/09/2020	Ram
A2.28 Final project impact (WP2)	30/09/2020	Ram
A2.29 Final project impact (WP2)	30/09/2020	Ram
A2.30 Final project impact (WP2)	30/09/2020	Ram

A2.4 Pedagogical tools- Ioannis (UTH) has sent latest version to Ram.

A2.6 Teacher's guide-book- Jorgen is working on this, final editing part. Once we have final version it will need to be translated into local languages. There is budget to pay for translation. Latest version Ram has is from 09/05/20. Ram puts this version in google drive 'WP2 Development' > 'Teachers guide book'. Ram asks for comments from partners on this guide. Editing should be done on that document, so we all edit the same document. If you have problems with editing and saving please send the comments to Jorgen, NTNU.

Deadline end-July 2020 comments to be sent to Jorgen by partners. Ram mentions that the teacher's guide can be shared widely and if there is demand and it is being used that could be listed as 'impact'. Guide can be finalized in August. Then translation

Discussion on project extension:

Original end date of the project is 14th Oct and final report 14th Dec 2020. EU happy to give an extension (max 12 months).

Major events left:

- Info days for the internships by all Asian partners
- Final conference: Initially planned Sept 2020; conference is teaching-centric; we discuss whether the conference should be fully an on-line event (positives would be that we can reach more people-project target was set at 300 people attending). Anita suggests having a normal conference with limited number of attendees but make it available digitally to wider audience. We discuss about having the final conference in spring 2020.

Tasks we are lacking behind:

- Accreditation
- Publications: Ideally, each partner country works and leads a publication.
- Student targets we are also behind (target 90) same for internships and VET courses.
- We also need to work on the quality of the course outlines, which have not really have time to do it.

Initially Jorgen suggest extension for at least 6 months or maybe even 9 months. Mags Ilham Alimin also supported 12 months and all other partners agreed with this as there is still uncertainty of COVID19. More time will give us more time for publications. We agree on 12 months extension. However more time, means work should be better and achieve more. Mags suggest to do small working groups and allocate different tasks/jobs.

Meeting adjourned at around 18:40 hrs.

Documents available at:

<https://drive.google.com/drive/u/1/folders/1O4hQZ1iyVz0Bgk1jNiojKT5n0uwMm0wn>

Annexes:

Announcement on social media

Attendances



Program for Teacher Training, Indonesia

June 22-26, 2020
WEBINAR TRAINING

Registration: <https://bit.ly/SSNSTeachersTraining>

June 22 : <https://us02web.zoom.us/j/86173446569?pwd=aVk2bC9NcmNIN0gwYzIGVUkzSFIUUT09>

June 23: <https://zoom.us/j/93490506672?pwd=NjlaUINndkJvQmdUVUZtc2V5SWdlZz09>

June 24: <https://us02web.zoom.us/j/84331307082?pwd=czAxNkt2R01KVExBVFM2aEY4Z1FqUT09>

June 25: <https://us02web.zoom.us/j/89225377410?pwd=WWZnWjNuOWFmWTd6ci9DeU5LZ3pTQT09>

Day-Date	Bangkok/Jakarta time and activities
Monday, June 22	14:45 - 15:00 Meeting preparation and welcome by organizer 15.00-15.10 Welcome by IPB University Rector/Vice-Rector/Dean of FPIK (Faculty of Fisheries and Marine Sciences) IPB/ Director of ICO (International Cooperation Office) IPB
Host: IPB	15.10-15.30 Progress of SSNS program and progress on indicator metrics - by Project Coordinator.
Reporting	15.30-16.30 Presentation of - IPB

(NTNU)	<ul style="list-style-type: none"> • The existing curriculum of Aquatic Product Technology (Dr. Uju Sadi/Dr. Wini Trilaksani) Accreditation (total credits of curriculum, credits given per course, accreditation progress etc.) • Proposed MSc curriculum development Present the whole structure of the curriculum (how many courses, weeks per course, lab session, field work, internships etc.) (Dr. Ruddy Suwandi) • ERASMUS+ Lab equipment of SSNS Center of Excellence (Dr. Ruddy Suwandi/Dr. Roni Nugraha) <p>16.30-18.00 Discussion (lead by the Project coordinator (Dr. Ram Bhujel/ EU):</p> <ul style="list-style-type: none"> • Does the MSc structure fulfill the SSNS goals? • Does the MSc curriculum implement the Gap Analysis (WP1)? • Does the MSc curriculum fulfill the Erasmus+ requirements for Curriculum Development? • Discussion with teachers what improvements/impacts in teaching methods/material use etc. they have implemented to make more effective delivery <p>Accreditation: Is it sound? Could it be a unified accreditation for all proposed MSc in all SSNS Centres?</p>
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<p>Tuesday, June 23</p> <p>Host: UGM (Univ Thessaly)</p>	<p>14:45-15:00 Meeting preparation, welcome and warm-up 15.00-15.10 Welcome speech: Prof. Ir. Panut Mulyono, M. Eng. D. Eng, IPU (Rector of University of Gadjah Mada) 15:10-16.00 Presentation of MSc Study Program (Dr. Alim UGM)</p> <ul style="list-style-type: none"> • Present the whole structure of the curriculum (how many courses, weeks per course etc.) • Existed, updated and new courses (new courses based on the gap analysis?) • Teaching methods (any new methods that have been used etc.) • Accreditation (total credits of curriculum, credits given per course, what is the accreditation progress etc.) • Internships (present the plan, with whom/where, how many students, for how long, monitoring and evaluation, learning outcomes, feedback, official agreements etc.) <p>16.00-17.00 Discussion (lead by the Project coordinator (Dr. Ram Bhujel/ EU): - Discussion with past/new MSc students of UGM about their experience on the course - Discussion with past/new MSc students of IPB about their experience on the course - Do students feel that they have been engaged more, taught more effectively, than before?</p> <p>17.00-18.00 Discussion of Teachers' Training Tools NTNU/UTH/UoS and Euro-Training</p>
<p>Wednesday, June 24</p> <p>Host: JFU Report:</p>	<p>14:45 – 15:00 Meeting preparation, welcome and warm-up 15:00 – 15:10 Welcome Remarks from Prof. Ir. Sjarief Widjaja/Bambang Suprakto, PhD, FRINA, Chairman of Agency for Marine and Fisheries Research and Human Resources, Ministry of Marine Affairs and Fisheries 15.10-16.10 Presentation of the proposed MSc curriculum development. JFU</p> <ul style="list-style-type: none"> • Present the whole structure of the curriculum (how many courses, weeks per course etc.) • Existed, updated and new courses (new courses based on the gap analysis?) • Teaching methods (any new methods that have been used etc.) • Accreditation (total credits of curriculum, credits given per course, what is the accreditation progress etc.) • Internships (present the plan, with whom/where, how many students, for how long, monitoring and evaluation, learning outcomes, feedback, official agreements etc.) <p>16.10-17.00 Discussion (lead by the Project coordinator (Dr. Ram Bhujel/ EU) Discussion with past/new MSc students of JFU about their experience on the course - Do students feel that they have been engaged more, taught more effectively, than before?</p> <p>17.00-18.00 Teaching method – Lecture given by NTNU</p>
<p>Thursday, June 25 (internship)</p> <p>Host: IPB</p>	<p>14:45 – 15:00 Meeting preparation, welcome and warm-up 15.00-15.30 Presentation by Eel farming and processing unit, PT Laju Banyu Semesta (PT. LABAS), Pamijahan Bogor and Seafarming Station CCMRS 15.30-16.00 Sea-farming Presentation by PT Sinta Prima Feedmill (SPF), Jl. Narogong Km 18, Kp. Rawahingkik RT02/01 Desa Limusnunggal, Cileungsi Bogor, Jawa Barat 16820 16.00-16.30 Presentation about internship programs (UGM) by Dr. Kim Sung Sam, Director PT Cheil Jedang Feed Semarang 16.30-17.30 Interactive discussion in groups VLE platform by Euro Training</p>

Friday, June 26 Host: JFU	Revised program: 15.00-15.30 Review/wrap up of past 4 days activities. 15:30 – 16:30 Discuss and make clear EU requirements and our progresses: (by Project Coordinator) such as: <ul style="list-style-type: none"> · QUALITY ASSURANCE. e.g. how to assure that the SSNS is of high quality, what are our indicators/standards · SUSTAINABILITY – e.g. demonstrate that SSNS project is sustainable in human resources, at institutional level, financial viability etc. · IMPACT – monitoring of SSNS impact, links of SSNS with society. · Accreditation: Could it be a unified accreditation for all SSNS Centres – certificate · SSNS Centre - where/office and how this will be established/operate in each Asian partner. 16.30-17:45 Project meeting – Report of activities by each Asian Coordinators and future plans 17.45-18.00 Closing
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Partners	Name of teachers/staff	Role	Contact email	Signature
AIT	1. Ram C. Bhujel	Coordinator / Team Leader		
NTNU	2. Dr Jorgen Lerfall	Trainer		
NTNU	3. Dr Anita Jacobson	Trainer		
UoS	4. Prof Rachel Norman	Trainer		
UoS	5. Dr Amaya Albalat	Trainer		
UoS	6. Dr Margaret Crumlish	Trainer		
UTH	7. Dr Ioannis Karap Karapanagiotidis	Trainer		
UTH	8. Dr Ioannis Boziaris	Trainer		
UTH	9. Dr Konstantinos Polymeros	Trainer		
EuroTraining	10. Evi Polytarchi	Trainer		
EuroTraining	11. Nikolas Michailidis	SSNS VLE - trainer		

Partners	Name of teachers/staff	Role	Contact email	Signature
IPB Univ.	12. Dr. Ruddy Suwandi	Partner Coordinator	ruddysuwandi@gmail.com	
	13. Prof. Dr. Nurjanah	Trainees	inun_thp10@yahoo.com	
	14. Prof. Dr. Tati Nurhayati	Trainees	nurhayati7870@yahoo.com	
	15. Dr. Mala Nurilmala	Trainees	malanm28@yahoo.com	

	16. Dr. Asadatun Abdullah	Trainees	sasa_thp@yahoo.com	
	17. Dr. Roni Nugraha	Trainees	roni_nugrahai@yahoo.com	
UGM Univ.	1. Dr. Alim Isnansetyo	Partner Coordinator	isnansetyo@ugm.ac.id	
	2. Dr. Murwantoko	Trainees		
	3. Dr. Amir Husni	Trainees		
	4. Dr. Riza Yuliratno Setiawan	Trainees		
	5. Dr. Ratih Ida Adharini	Trainees		
	6. Dr. Siti Ari Budhiyanti	Trainees		
JFU	1. Ilham, PhD	Partner Coordinator	ilham.jfu@kkp.go.id	
	2. Dr. Moch. Nurhudah	Trainees		
	3. Dr. Sinung Rahardjo	Trainees		
	4. Dr. Meuthia A. Jabbar	Trainees		
	5. Dr. Niken Dharmayanti	Trainees		
	6. Dr. Mugi Mulyono	Trainees		
	7. Fitriska Hapsyari, M.Si.	Trainees		
MJU	1. Dr Chanagun Chitmanat and others	Partner Coordinator		
KKU	2. Dr Somsamorn and others	Partner Coordinator		
CTU	3. Dr Phoung / Dr Minh Phu	Partner Coordinator		
RIA1	4. Dr Dang Lua / Ms Lien	Partner Coordinator		
NLU	5. Dr Kha Nam	Partner Coordinator		