



Evaluation Report

***FAO World Fisheries University Pilot Programme
(Master's Degree programme in Fisheries Science)***

Offered by

**FAO World Fisheries University (FAO WFU) Graduate
School *in collaboration with* Pukyong National Uni-
versity (Republic of Korea)**

Version: 04/05/2021

Status: *Completed*

Table of Content

Abbreviations	4
A Executive Summary	5
A-1 Overall assessment	5
A-2 Recommendations	5
B About the Evaluation Procedure	9
B-1 Subject of Consultancy and Expert Panel	9
B-2 Assignment of Consultancy.....	9
B-3 Institutional Context: FAO WFU/Pukyong National University of the Republic of Korea	10
C Methodology, Aims and Rationale	10
C-1 Terms of Reference.....	10
C-2 Methodological Approach and Central Questions	11
D Assessment of the Expert Panel	14
D-1 Study Objectives and Learning Outcomes.....	14
D-2 Name of the Degree Programmes.....	17
D-3 Curriculum, Structure and Practice Orientation.....	18
D-4 Entry Requirements / Admission process.....	24
D-5 Didactical Methods and Support Services	28
D-6 Workload and Credit Point System.....	31
D-7 Examination System.....	34
D-8 Resources.....	37
D-9 Quality Assurance Management	42
D-10 Transparency and Documentation	44
E Additional Documents	46
F Comment of the FAO/WFU Graduate School (15.04.2021).....	47
G Final assessment and recommendations of the expert panel (02.05.2021)	55
G-1 Overall assessment	55

G-2	Concluding remarks and recommendations.....	62
-----	---	----

Abbreviations

ECTS	European Credit Transfer System
EQF	European Qualification Framework
FAO	Food and Agriculture Organisation of the United Nations
GSR	Graduate School Regulations
HE	Higher Education
HEI	Higher Education Institution
MOF	Ministry of Oceans & Fisheries (of the Republic of Korea)
MOU	Memorandum of Understanding
PKNU	Pukyong National University
QA	Quality Assurance
SDGs	Sustainable Development Goals
SSC	Subject-Specific Criteria
UN	United Nations
WFU	World Fisheries University

A Executive Summary

A-1 Overall assessment

In general, the experts are convinced of the potential and value of this Master's programme and its quality level. From the documentation about the Pilot Programme, the information available on the programme's website as well as from the comments and written statements of the FAO representatives, WFU programme management, lecturers and students, the experts gain the impression that *the FAO WFU Pilot Programme contributes to the United Nations (UN) Sustainable Development Goals (SDGs) concerning the fight against hunger, mal nutrition and poverty in developing countries.*¹ Moreover, the expert team after assessing the Pilot Programme against internationally acknowledged standards for quality assurance of degree programmes at HE level share the opinion, that *this Master's programme overall meets the expectations at Master's level.* After completing their studies, students from developing countries with relevant fisheries sectors are prepared to take over professional roles at the intersection of the production, management and science of the fisheries.

The experts therefore *consider the Pilot Programme and the engagement of both FAO and the Republic of South Korea an overall successful project that they would strongly plead perpetuating in whatever institutional configuration.*

Despite their overall positive impression, the expert team identified several areas of concern and potential improvement, which might be grouped under four categories a) Quality aims and learning process, b) Practical and application-oriented competences, c) Admission and enrolment issues and d) Quality assurance.

A-2 Recommendations

a) Quality aims and structure of programme

The experts would appreciate to see in a more distinguished manner, which discipline-oriented qualifications students of all three majors have in common, apart from the major-related qualifications. In addition, this qualification profile should be exemplified through concrete occupational/job profiles. The name of the programme – whether carrying the

¹ As to the goals of this evaluation see above sec. B-2.

acronym of the FAO or not – should in the first instance clearly address the discipline aimed at and resonate with the intended learning objectives and the contents of the curriculum. Individual study plans could be more flexible, particularly in the electives area, and in this regard should not be bound too strictly by credit ceilings. The mandatory thesis work should adequately reflect the Master’s level in scope and size and be feasible within the limited time set for it.

Recommendations

- 1 *It is recommended to specify the overall programme learning outcomes – apart from and in combination with the learning objectives of the individual majors – in order to clearly differentiate shared qualifications from those individually reflected in the different majors. Targeted fields of professional activities of each major study track should be outlined there. The structure of the curriculum, especially with regard to the optional notion of the “common courses” should be reconsidered in this respect. [D-1, D-6]*
- 2 *The title of the study programme should resonate with its learning objectives and curricular contents. [D-2]*
- 3 *It is recommended enabling students to take courses of other majors or other degree programmes at the host university above the maximum 12 credits per semester. [D-3]*
- 4 *It is recommended to ensure through appropriate means that the Master’s Thesis is of adequate and comparable size and can be completed within the planned time frame. [D-6 and D-7]*
- 5 *It is recommended to revise the Course Syllabus according to the indications in this report. [D-3]*

b) Practical and application-oriented competences

The experts conclude that the acquired theoretical knowledge should be translated more adequately into practical competences applied in real-world assignments. From their perspective, this should be reflected also in a more application-oriented design of the Master’s Theses. At Master’s level, the programme at the same time will have to keep track to new scientific and technological developments in the Fisheries arena. (Applied) Research co-operations with departments and faculties of the host university, other universities as well as research institutions at home and abroad will significantly support any effort in this direction. This could open up significant opportunities to link students to ongoing research projects for the Master’s Theses, which, in turn, would provide them practical (research)

experience and could cover related material costs. Including the targeted developing countries and/or home countries of the students into the governance partnership networking activities of a successor programme would probably contribute to the above purposes as well.

5 **Recommendations**

- 6 *It is recommended to enhance the practical, application-oriented parts of the curriculum (through labs, field trips, projects, case studies or else) in order to ensure that the theoretical knowledge adequately translates into practical competencies in the respective field. [D-3]*
- 10 7 *It is recommended to include a field trip for the purpose of data collection in the home-countries of the students into the Master's thesis research work. This will serve the application-orientation and the respective regional focus of the degree programme. [D-7]*
- 15 8 *It is recommended to link students wherever possible to ongoing research projects for their Master's Theses, which would provide them practical (research) experience and could cover related material costs. [Supplemented]*
- 9 *It is recommended to include into the governance partnership networking activities also and particularly the target developing countries / home countries of students in order to raise the potential impact of the programme and its graduates. [D-8]*

20 c) *Admission and enrolment issues*

When it comes to admission and enrolment of students to the Pilot Programme, the experts intensively discussed ways and means to enable students with different educational and cultural backgrounds to enter and successfully complete the programme. Strengthening and to a certain degree levelling out the students' entrance qualification is one field of concern here; enforcing the learning process through encouraging intercultural understanding and exchange another. Additionally, the expert team explicitly welcomes all efforts to support students before and during the complicated admission process.

Recommendations

- 30 10 *It is recommended to provide students with adequate offers for closing knowledge and skills gaps before commencing their studies in order to enlarge their ability to achieve the intended learning objectives at Master's level. [D-4]*

11 *It is recommended to open the programme for a limited number of Korean students in order to foster the intercultural understanding and exchange amongst the students and stimulate further interlinkages through an alumni-network. [D-4]*

5 12 *It is recommended to intensify the assistance of students in the admission process through appropriate measures – such as those indicated in the statement of the FAO WFU programme management. [D-4]*

d) *Quality assurance*

The internal QA of the Pilot Programme reveals deficits that in the eyes of the peers can be easily addressed. Putting in place an adequate monitoring system concerning student workload, closing feedback cycles as well as invigorating the students' participation in the QA are solvable problems.

Of far more importance with respect to QA is the multi-level QA system that has been established for the Pilot Programme and the challenges it poses to the functioning of communication channels between the levels and institutions. The experts choose to not explicitly address this issue – which has been thoroughly deliberated in sections D-8 and D-9 of this report – in their list of recommendable actions. However, they strongly admonish the stakeholders of any successor programme to carefully re-think the distribution of responsibilities and competences in the QA.

Recommendations

20 13 *It is recommended to put in place a viable monitoring scheme for student workload in order to allow for timely adjustments in case of significant discrepancies between credit allocation and workload calculation. [D-6]*

25 14 *It is recommended to generally strengthen the student's participation in the quality assurance processes of the programme, and in particular to ensure feedback to them about the results and measures taken in the follow-up process. [D-9]*

15 15 *Course evaluation and student satisfaction questionnaires should be revised and further developed to provide more meaningful information about major course- and study-related issues (learning objectives, contents, exams, and student services, professional and pedagogical competencies of lecturers etc.). [D-9]*

30

B About the Evaluation Procedure

B-1 Subject of Consultancy and Expert Panel

Subject of Consultancy	Evaluation of FAO WFU Pilot Programme (Master's degree in Fisheries science) offered by Graduate School of FAO WFU in collaboration with Pukyong National University (Republic of Korea)
The expert panel	Dr. Werner Ekau, Leibniz Centre for Tropical Marine Research (former Center for Tropical Marine Ecology), Bremen, Germany PD Dr. habil. Sonja Kleinertz, Faculty of Fisheries and Marine Sciences, University of Bogor, Indonesia Dr. Gesche Krause, Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI), Bremerhaven, Germany Dr. Siegfried Hermes, Senior Consultant, ASIIN Consult GmbH, Duesseldorf, Germany

B-2 Assignment of Consultancy

- 5 According to the contract between the Food and Agriculture Organisation of the United Nations (FAO) and ASIIN Consult GmbH, the scope of this assignment is to conduct an evaluation of a newly designed FAO World Fisheries University (WFU) Pilot Programme leading to the award of a Master's degree in Fisheries Science.

B-3 Institutional Context: FAO WFU/Pukyong National University of the Republic of Korea

5 FAO WFU has been established by means of a formal Memorandum of Understanding (MOU) between FAO and the Government of the Republic of Korea.² According to Art. 1 No 1 a i) of the MOU, both parties agree to jointly develop a “Master’s degree (M.Sc.) programme in fisheries” to be delivered in cooperation with the hosting Pukyong National University (PKNU) of the Republic of Korea. The evaluation of the Pilot Programme is considered one important step to establishing FAO WFU as an autonomous international organisation with a formal partnership relationship to FAO. The overall responsibility for ensuring appropriate facilities, services and resources for the Pilot Programme lies with the Ministry of Oceans and Fisheries (MOF) of the Republic of Korea, according to Art. II No. 6 a. of the MOU. A Pilot Programme steering committee comprising representatives of the FAO secretariat and the MOF has been established in order to monitor the implementation of the programme (Art. V No 4 – 10).

15 C Methodology, Aims and Rationale

C-1 Terms of Reference

20 According to the Appendix “Detailed Description of the Pilot Programme” to the MOU, this evaluation is primarily geared towards monitoring and evaluating “the administrative and academic performance of the WFU against the highest possible international standards for this type of institutions”³.

25 It is reasonable to relate the “highest possible international standards” to recognized quality assurance criteria for degree programmes in Higher Education (HE), in this case at the Master’s level. As an EQAR⁴ registered agency, the German accreditation agency ASIIN – to which ASIIN Consult belongs as a 100% affiliate – disposes of QA criteria sets, which comply with the “Standards and Guidelines for Quality Assurance in the European Higher Education

² “Memorandum of Understanding concerning the World Fisheries University Pilot Programme between The Food and Agriculture Organization of the United Nations and The Ministry of Oceans and Fisheries of the Republic of Korea” as of 14 May 2019.

³ Ibid., p. 14.

⁴ European Quality Assurance Register for Higher Education, see for more information: <https://www.eqar.eu/> (Download: 23.02.2021)

Area (ESG)⁵ and are thus recognized not only in the European Higher Education Area (EHEA) but also international, as numerous ASIIN accreditation activities worldwide illustrate.

5 The stakeholders of this commission therefore have jointly agreed on referring to the ASIIN General Criteria as well as the Subject-Specific Criteria (SSC) for Master's degree programmes in the respective disciplinary field for an assessment of the quality of the FAO WFU Pilot Programme.

C-2 Methodological Approach and Central Questions

10 The expert panel has undertaken a comprehensive assessment of the FAO WFU Pilot Programme based on written documentation provided by the programme management as well as on (remote) discussions with the core stakeholders of the programme. From the picture gained through the written documentation, the peers derived questions and issues to be further clarified in the remote interviews with the different stakeholder groups already mentioned.

15 During the online discussions on 1 – 3 March 2021, the peers have met the relevant stakeholders – foremost the FAO, MOF and WFU programme management, coordinators, teaching staff and students. During the conversations, the panel confronted these stakeholders with those issues and aspects of the programme, which in the FAO WFU information provided so far remained unclear or have been answered unsatisfying, in an effort to validate
20 the extracted information through the method of triangulation (asking identical questions in different discussion rounds). Afterwards the panel has summarized its conclusions with regard to the assessment criteria in the evaluation report at hand, thereby also pointing out recommendations for the quality development of this or any successor programme from their perspective.

25 Before this background, the lead questions of the evaluation of the revised degree programmes are as follows:

Generally:

Does the FAO WFU Pilot Programme meet internationally acknowledged quality standards for Master's degree programmes in the area of fisheries science?

⁵ As of May 2015, available on the internet: https://www.engq.eu/wp-content/uploads/2015/11/ESG_2015.pdf (Download: 23.02.2021)

Specifically:

- 1) Do the learning outcomes reflect the curriculum and relate to the Master's level of HE (EQF level 7)? [D-1]
- 5 2) Does the curriculum / do the individual modules contribute towards achieving the intended learning outcomes in the mentioned competence areas? [D-3]
- 3) Is the structure and sequence of the modules consistent and reasonable, and do the modules build upon each other, if applicable? [D-3]
- 10 4) Which quality mechanisms/processes are in place to adjust the curriculum to the demands of stakeholders, in particular to student feedback or feedback from industry/business and the labour market? [D-3]
- 5) Do the entry requirements meet the demands of the programme, the labour market, and the scientific developments in the related fields of expertise? [D-4]
- 15 6) How do the entry requirements relate to the study progress and overall study success of students? [D-4]
- 7) Is there a procedural check of the alignment of the teaching/learning methods to the intended learning outcomes and contents of the modules? [D-5]
- 20 8) How are new scientific, technological, professional or didactical developments considered in the design of the teaching/learning process (digitalization for instance)? [D-5]
- 9) Are the examinations aligned to the intended learning outcomes? Do the results reflect the Master's level of HE? [D-7]
- 25 10) Do the academic record and professional backgrounds of the teaching staff meet the needs of the Master's programme? [D-8]
- 11) Are personal, material and financial resources reliably and sustainably available for the Pilot Programme? [D-8]
- 12) Which are the major components of the internal quality assurance (QA) approach for the Pilot Programme and how do they work out? [D-9]
- 13) How are stakeholders involved in the internal QA? [D-9]

30

The expert team addresses these questions in the different target fields of (programme) quality assurance such as study objectives/learning outcomes and curriculum (D-1, D-3),

admission/entry requirements (D-4), didactical methods and support services (D-5), workload (D-6), examination system (D-7), resources (D-8), quality assurance management (D-9), as well as transparency and documentation (D-10). Each of the respective chapters will start with a short description of the status quo and available evidence followed by the analysis and assessment of the peers.

5

D Assessment of the Expert Panel

The following sections of the report are based on the written documentation about the Pilot Programme provided by FAO WFU as well as the audit discussions the expert panel had with major stakeholder groups: the FAO, the MOF and WFU programme management, teaching staff, and students.⁶ The focus of this evaluation lies on the assessment of the level and quality of this newly designed degree programme. In addition to the audit meetings, the expert panel relies on the documentation about the programme and the regulatory framework FAO/WFU has provided before, during and after the audit.

D-1 Study Objectives and Learning Outcomes

Evidence

- Requested Information on WFU Pilot Programme (SAR, supplement)
- Graduate School of FAO World Fisheries University Pilot Programme – Academic Handbook, available on the internet: http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=5&no=0 (Download: 23.02.2021)
- “Programme Information: 2020 Graduate School of FAO World Fisheries University – Pilot Programme, Master’ Degree Programme”; available on the internet: http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=4&no=0 (Download: 23.02.2021)
- Audit discussions

Description of status quo

According to the supplementary information of WFU Graduate School, the programme is aiming at fostering “professionals in [the] fisheries field of developing countries to contribute [to] the development of fisheries in their home countries” – as opposed to broadening *academic knowledge* of individuals in the first place. In addition, the Pilot Programme is

⁶ FAO: Director, Fisheries Division (NFI); MOF: deputy director, assistant director; WFU programme management: Dean, team manager, coordinator; Teaching staff: five international professors; Students: four students from each major.

considered to contribute to the “attainment of food security by persistent management and effective use of natural resources”.

In order to achieve these goals, the WFU Pilot Programme in Fisheries encompasses three majors: *Aquaculture Technology*, *Fisheries Resource Management* and *Fisheries Social Science*. Instead of all-embracing programme learning objectives, WFU Graduate School has defined specified major-related learning objectives. According to this,

- Graduates of the major in *Aquaculture Technology* “obtain a comprehensive and up to date overview of the extent and diversity of emerging aquaculture technology, both in terms of the advancement of aquaculture science and its future directions. Students also gain an appreciation of the close relationship of fish and invertebrate culture with the capture fisheries and aquatic conservation”.
- Graduates of the major in *Fisheries Resource Management* “learn appropriate management measures in these areas: engineering, fishing gear design and construction, tests of fishing gear, and selectivity of fishing gear. Adaptation of fisheries management to climate change receives special attention, toward appreciation of the impacts of climate on the distribution, productivity and resilience of fish stocks, toward development of an appropriate understanding of the processes involved, with a focus on effective learning from past experience”.
- Graduates of the major *Fisheries Social Science* “study principles of small-scale and subsistence fisheries as related to the criteria for classifying fisheries and suitable resources, and the sectoral approach to fisheries management. One outcome is the importance of pursuit of improved livelihoods and social equity in the developing world, toward strengthening transparent, reliable and secure food systems. Our students seek to create an enabling environment for fisheries workers allowing them to function as thoughtful and sustainable resource users”.

These objectives have been provided as an additional information by the Graduate School, but are not published or otherwise commonly available yet.

Analysis and assessment of the expert panel

The expert panel appreciates the FAO WFU Graduate School’s commitment to the UN SDGs regarding the procurement, safety and sustainability of food production, processing and management. It welcomes the contribution of the Pilot Programme in this respect and acknowledges that the programme developers have defined learning objectives for the programme, which are, generally speaking, fully in accordance with the above-mentioned

fundamental objectives relevant to fisheries and aquaculture and to the sustainable development of the sector.

5 However, on closer inspection the peers note that there is not even a *published version* of the above-mentioned major-related learning objectives, let alone a summary of the learning objectives for the entire programme. It seems that, so far, the Graduate school has provided only (more or less) detailed course-related learning outcomes publicly, thus making it difficult for the peers to assess whether the curriculum meets its self-determined goals on programme level. The mentioned objectives for the different majors are helpful in this respect, as they indicate how those majors and the courses attributed to them concretize the UN SDGs related to fisheries and aquaculture. Together with the course learning objectives already communicated (for instance, on the Pilot Programme’s website, the “Programme Information” and the “Academic Handbook”), the overview over the majors’ intended learning objectives illustrates, which qualifications graduates of the respective major are supposed to have after completion of the programme/major.

15 What the Graduate School still misses out then is a concise description of qualifications, which *all graduates* of the Pilot Programme have in common. In its information and documentation of the programme, the Graduate School generally focusses almost entirely on the majors, although indicating that – apart from compulsory subjects marking each major and elective courses allowing for an individual focus in each major – there is an area of common courses, leading to a foundational umbrella qualification of students. In order to better understanding the linkage between the majors, the expert panel considers it highly recommendable to specify those common qualification goals of the programme. In the eyes of the peers, this would also contribute to a more distinguished appraisal of the learning objectives of the different majors.

25 As to the latter, the peers would also like to see that the learning outcomes clearly indicate the respective job profiles or professional activities, in which graduates might be pursuing their professional career after graduation. From the documentation and the audit discussions, it is clear that graduates of the Pilot Programme are supposed to enter positions in the sector-related administration, management, stakeholder organisations or business fields. Consequently, the expert panel suggests adding information about the focus areas of professional activity to the respective programme/major qualifications profile, thereby indicating how these fields of activity link to the different profiles.

Generally, the panel takes positively note of the fact that the feedback of different stakeholders to the precursor programme (WFU First Pilot programme, 2017 – 2019)⁷ obviously has been collected and utilized for the design and implementation of the programme under review. It is welcomed that this kind of follow-up with respect to the adequacy of the learning objectives and curriculum will be maintained after the termination of the current programme, in particular in case of the sustainable implementation of a successor programme.

Recommendations after preliminary assessment

It is recommended to specify the overall programme learning outcomes – apart from and in combination with the learning objectives of the individual majors – in order to clearly differentiate shared qualifications from those individually reflected in the different majors. Targeted fields of professional activities of each major study track should be outlined there.

D-2 Name of the Degree Programmes

Evidence

- “Memorandum of understanding concerning the World Fisheries University Pilot Programme between the Food and Agriculture Organisation of the United Nations and the Ministry of Oceans and Fisheries of the Republic of Korea” as of 14 May 2019, annex to report provided by FAO WFU
- Requested Information on WFU Pilot Programme (SAR, supplement)
- Website of the WFU Pilot Programme:
<http://wfu.pknu.ac.kr/html/sub01/sub0101.php>
- Audit discussions

Description of status quo

The “FAO WFU Pilot Programme” so far has been named by its institutional framework only. Being the successor of a foregoing WFU Pilot Programme implemented by the Republic of Korea on its own account between 2017 and 2019, the major stakeholders of this

⁷ Here and subsequently, the term “precursor programme” for the WFU First Pilot programme is used for reasons of convenience and, particularly, in order to indicate the substantial connection with the FAO WFU Pilot Programme. Formally speaking, the naming applies for PKNU only, but not for FAO, which has not bindingly committed itself to the First Pilot programme.

successor programme choose to keep the relationship of these programmes visible. In addition, the three majors of the programme carry distinct titles: *Aquaculture Technology*, *Fisheries Resource Management* and *Fisheries Social Science*, respectively.

Analysis and assessment of the expert panel

5 As of now there is no name of the programme except of its official umbrella description „FAO WFU Pilot Programme“. If the WFU is to be formally institutionalized in whatever manner and the Pilot Programme by the same token perpetuated, it would be commendable to also denominate the programme appropriately (for instance, “Applied Fisheries Research” or “Applied Fisheries and Aquaculture Management”). This would not only help
10 applicants to identify the programme in the internet and find relevant information there. It will also be a precondition in an external quality assurance procedure leading to a certification/accreditation decision. The respective criteria will inevitably ask whether the programme title is consonant with its intended learning outcomes and the curricular content. Because of the lack of a meaningful programme name, this evaluation of the programme
15 focuses on the latter part of the connection (correspondence between self-determined learning objectives and curricular contents).

Recommendations after preliminary assessment

The title of the study programme should resonate with its learning objectives and curricular contents.

20 **D-3 Curriculum, Structure and Practice Orientation**

Evidence

- Curricula for the different majors on the website of the FAO WFU Pilot Programme: <http://wfu.pknu.ac.kr/html/sub02/sub0202.php> (Download: 23.02.2021)
- Report on FAO WFU Joint Pilot Programme Operation Status (October 2020)
- 25 • “Programme Information: 2020 Graduate School of FAO World Fisheries University – Pilot Programme, Master’ Degree Programme”; available on the internet: http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=4&no=0 (Download: 23.02.2021)
- Course Syllabus, provided by FAO WFU on request (not available on the internet)

- Graduate School Regulations (GSR) of PKNU as of 31.10. 2017, available on the internet: http://wf.u.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=1&no=0 (Download: 23.02.2021)
- “Memorandum of understanding concerning the World Fisheries University Pilot Programme between the Food and Agriculture Organisation of the United Nations and the Ministry of Oceans and Fisheries of the Republic of Korea” as of 14 May 2019, annex to report provided by FAO WFU
- Audit discussions

Description of status quo

As the MOU illustrates and the WFU reports about the Pilot Programme confirm, the MOF, PKNU and FAO have jointly worked out the curriculum of the FAO WFU Pilot Programme. Under the oversight of the MOF, the PKNU is finally in charge of the (further) development and implementation of the programme, always in close cooperation with FAO (Art. II No. 5 and 6 MOU). The Steering Committee – being the governing body of the Pilot Programme and consisting of three representatives of MOF and FAO respectively – among other things shall have a final say in the curriculum (Art. V No. 7 MOU: “review and approve curricula”). In accordance with the Annex of the MOU, three international professorial experts shall be nominated by FAO to oversee the elaboration of the curriculum and give advice to this process (WFU curriculum committee). Actually, two “advisory professors” are appointed and according to the documentation have been working in this capacity.

Concerning the content of the FAO WFU Pilot Programme, the curriculum has been designed in a very broad manner in order to embrace different disciplinary fields of expertise through three topical majors in *Aquaculture Technology*, *Fisheries Resource Management* and *Fisheries Social Science*. Based on a set of common courses, the curriculum thereby enables the students to achieve an individual competencies profile in one of the majors while at the same time widening their disciplinary perspective through the selection of at least a couple of courses of the neighbouring majors. Students are required to take major-related compulsory courses as well as elective courses from the start of their studies and thus have to choose their major before commencing the programme.

The curriculum consists of two regular semesters and two seasonal sessions. Each major comprises nine (common, compulsory and elective courses) courses, supplemented by the *Thesis Research Methodologies* and the *Thesis Research* courses and completed by a compulsory Master’s thesis. The courses are delivered over a 15 weeks period per semester and two seasonal sessions of roughly three weeks (Summer session) and eight weeks time (winter session) in between.

D Assessment of the Expert Panel

The available information (mainly from the “Course Syllabus”) does not give any direct indication of content-related interdependencies of common, compulsory and elective courses in each major and across the majors. Particularly the specifications in the Course Syllabus do not provide any information about prerequisite knowledge to be attained in other courses of the programme.

5

The curricula for the majors are presented as follows:

	Aquaculture Technology	Fisheries Resource Management	Fisheries Social Science
Common Subjects	Aquaculture Systems and Management, Fisheries Stock Assessment, Fisheries Economics and Trade, Fisheries Management and Governance, Thesis Research Methodologies		
Compulsory Subjects	Finfish Aquaculture	Principles of Inland Fisheries	Small Scale and Subsistence Fisheries
	Crustacean and Molluscan Aquaculture	Climate Change Impacts on Fisheries	Blue Growth and Economy
	Seafood Disease and Safety	Fisheries Technology and Operations	Thesis Research
	Thesis Research	Thesis Research	
Elective Subjects	Principles of Inland Fisheries	Finfish Aquaculture	Finfish Aquaculture
	Small Scale and Subsistence Fisheries	Small Scale and Subsistence Fisheries	Principles of Inland Fisheries
	Climate Change Impacts on Fisheries	Crustacean and Molluscan Aquaculture	Climate Change Impacts on Fisheries
	Fisheries Technology and Operations	Seafood Disease and Safety	Fisheries Technology and Operations
	Blue Growth and Economy	Blue Growth and Economy	Seafood Disease and Safety
			Crustacean and Molluscan Aquaculture

Aquaculture Technology

Semester	Division	Subject	Credits
2020 Spring	Compulsory	Finfish Aquaculture	3
	Elective	Principles of Inland Fisheries	3
		Small Scale and Subsistence Fisheries	3
	Common	Aquaculture Systems and Management	3
		Fisheries Stock Assessment	3
	Fisheries Economics and Trade	3	
2020 Summer	Common	Thesis Research Methodologies	3
2020 Fall	Compulsory	Crustacean and Molluscan Aquaculture	3
		Seafood Disease and Safety	3
	Elective	Climate Change Impacts on Fisheries	3
		Fisheries Technology and Operations	3
		Blue Growth and Economy	3
	Common	Fisheries Management and Governance	3
2021 Spring	Compulsory	Thesis Research	1

Fisheries Resource Management

Semester	Division	Subject	Credits
2020 Spring	Compulsory	Principles of Inland Fisheries	3
	Elective	Finfish Aquaculture	3
		Small Scale and Subsistence Fisheries	3
	Common	Aquaculture Systems and Management	3
		Fisheries Stock Assessment	3
		Fisheries Economics and Trade	3
2020 Summer	Common	Thesis Research Methodologies	3
2020 Fall	Compulsory	Climate Change Impacts on Fisheries	3
		Fisheries Technology and Operations	3
	Elective	Crustacean and Molluscan Aquaculture	3
		Seafood Disease and Safety	3
		Blue Growth and Economy	3
	Common	Fisheries Management and Governance	3
2021 Spring	Compulsory	Thesis Research	1

Fisheries Social Science

Semester	Division	Subject	Credits
2020 Spring	Compulsory	Small Scale and Subsistence Fisheries	3
	Elective	Finfish Aquaculture	3
		Principles of Inland Fisheries	3
	Common	Aquaculture Systems and Management	3
		Fisheries Stock Assessment	3
		Fisheries Economics and Trade	3
2020 Summer	Common	Thesis Research Methodologies	3
2020 Fall	Compulsory	Blue Growth and Economy	3
	Elective	Climate Change Impacts on Fisheries	3
		Crustacean and Molluscan Aquaculture	3
		Seafood Disease and Safety	3
		Fisheries Technology and Operations	3
Common	Fisheries Management and Governance	3	
2021 Spring	Compulsory	Thesis Research	1

Incorporated into the curriculum are several field trips in order to lead students to a comprehensive understanding of the more theoretical lectures. This is only marginally reflected in the Course Syllabus (containing detailed course descriptions).

Analysis and assessment of the expert panel

5 The expert panel understands that the development of the curriculum of the Pilot programme has been a joint endeavour of the major stakeholders of the FAO, MOF and PKNU. From the explanations in the audit discussions, the peers gain the impression that MOF and PKNU (as well as international experts) commented and supplemented an initial curriculum proposal from FAO, which then was put to the approval of the Steering Committee as stipulated in the MOU. On request, the FAO programme director unmistakably stated that the ultimate responsibility for the curriculum lies with PKNU as the Higher Education Institution (HEI) operating the programme and awarding the degree. The peers found this clarification helpful to classify the respective decision-making status of the Steering Committee adequately. The ultimate responsibility of the HEI for the programme development and delivery is highly important with respect to the international standards for HE, the international recognition of the Master's degree and the international mobility opportunities of the students/graduates.

As to the structure and contents of the Pilot Programme, the peer panel appreciates the broad, balanced and well-founded concept. Supplementary information and comments in the audit discussions also evidenced the programme's inclusive and gender-sensitive approach (in particular with respect to the composition of the current student cohort and the content of the courses).

The concept of three distinct majors, unified by a set of common courses while at the same time opened up for an individual focus through electives, facilitates a high flexibility of study planning despite an overall limited catalogue of available courses. The fact that the compulsory modules of one major figure as electives of the others is considered an additional binding element. In that regard however, some students complain that the restriction of courses per semester (12 Korean credits) hinders any intention to take more electives in a term. It is understandable in the eyes of the peers that curriculum developers in view of the short study cycle of this programme were primarily concerned with the achievement of the intended learning outcomes within the regular study period. Yet with the experiences of this Pilot Programme and the study progress of students closely monitored, more flexibility in that respect might be considered. In addition, the actual approach limits the electives to the set of courses developed solely for this programme. Consequently, the selection of elective courses from the neighbouring majors leads generally to

a broadening of competencies in either *Aquaculture Technology*, *Fisheries Resource Management* or *Fisheries Social Science*. The concept is not aimed at deepening competencies in the fields of the respective major. This would only be possible through enlarging the catalogue of appropriate elective courses. Yet it would not necessarily require additional lecturers for the programme and consequently additional funds, but could likewise be achieved through opening up regular courses of the Department of Fisheries Biology of PKNU, for instance, to (future) students of the programme. An intensified collaboration between the Graduate School and other Departments of PKNU could thus be a surplus of such an arrangement. The peer panel recommends revising both the maximum credit load per semester and the reservoir of appropriate elective courses.

Concerning the sequence and content of the courses in the different majors, the expert panel consider them plausible. Alternatively, one might think about providing the common core and fundamental courses in the first semester and follow up with the major-related compulsory courses and electives of individual choice in the second. This would leave students with more time to choose the major on the one hand and more room to socialize as an international and multicultural student group on the other. However, the scheduled structure and content of each major do not raise specific concerns and the students in general attest to this assessment.

What the curricula principally lack in the peers' view, independent of the major, is rather an adequate share of practical or application-oriented units offering students the opportunity to apply the theoretical knowledge acquired in the courses. Although appreciating the knowledge and competencies to be gained in aquaculture technology and science, students of the *Aquaculture Technology* major miss regular (integrated) laboratory units to fully comprehend, deepen and apply the acquired knowledge. It appears that they have access to laboratories of other PKNU departments and could ask for the help of instructors there. Yet, the peers consider this, although appreciable as an additional means, no viable approach if being the regular mode for students to gain lab experience. Students of the *Fisheries Resource Management* major, in turn, appreciate the management methods in fishery-related areas and how they are affected through and adjusted to climate change in different regional environments. Yet they also miss field trips or other adequate practical learning experiences. In the same line, students of the *Fisheries Social Science* major report about receiving a good overview of the subject fields and methods, but lacking the experience to independently collect the relevant empirical data in the field, which they are supposed to analyse and assess in their Master's thesis.

The peers readily admit that the pandemic seriously hampered the field trips, which are described as an integral component of at least some courses across all majors (*Fisheries*

Management and Governance, Principles of Inland Fisheries, Fisheries Technology and Operations, and Small Scale and Subsistence Fisheries). Notwithstanding, they consider it indispensable that the advanced theoretical knowledge conveyed in this Master's course is completed through either separate or integrated practical units tailored to the demands of the respective major. As the programme strives to direct attention towards both the global and local fisheries sectors in order to enable graduates to act as professionals in the fisheries field of their home countries, it needs to include appropriate and significant practical parts as well. In addition to the several already planned field trips, the expert panel therefore strongly suggests a more structured inclusion of significant practice-oriented teaching components. Enhancing the practical, profession-oriented parts of the curriculum (through labs, field trips, projects, case studies or else) should thus be considered when revising the curriculum for an ensuing new Master's programme. Part of this might be considering the combination of the Master's thesis with a field trip to the student's home country or region for the purpose of data collection (see also below sec. D-7).

Further to the curriculum, the peers are of the opinion that the information given in the Course Syllabus could be improved in several instances. Thus, for example, the learning objectives and course contents are often mixed up, contents on occasion described only superficially and indications of prerequisite knowledge generally left out. Although of minor weight, it is suggested to follow-up the issue in order to increase the significance of the course descriptions.

Recommendations after preliminary assessment

It is recommended to enhance the practical, application-oriented parts of the curriculum (through labs, field trips, projects, case studies or else) in order to ensure that the theoretical knowledge adequately translates into practical competencies in the respective field.

It is recommended enabling students to take courses of other majors or other degree programmes at the host university above the maximum 12 credits per semester.

It is recommended to revise the Course Syllabus according to the indications in this report.

D-4 Entry Requirements / Admission process

Evidence

- Admission Requirements and Process as outlined in the "Programme Information: 2020 Graduate School of FAO World Fisheries University – Pilot Programme, Master' Degree Programme"; available on the internet:

http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=4&no=0 (Download: 23.02.2021)

- Admission Requirements as published on the website of the FAO WFU Pilot Programme: <http://wfu.pknu.ac.kr/html/sub03/sub0301.php> (Download: 23.02.2021)
- 5 • Information about the admission process on the FAO WFU website: <http://wfu.pknu.ac.kr/html/sub03/sub0302.php> (Download: 23.02.2021)
- Excel file “Gender, Age Distribution Student Cohort”, additional information provided by FAO WFU
- Audit discussions

10 **Description of status quo**

Essential admission requirements according to the published version are that applicants

- a) need to be nationals of developing countries (and must not have a double nationality including the Korea citizenship);
- b) must have a Bachelor’s degree;
- 15 c) must have “sufficient” English language skills in order to understand lectures in English and write a Master’s Thesis.

In addition, some “preferential conditions” apply such as

- a) a Bachelor’s degree in a related field;
- b) working experiences in a related field or as a governmental official;
- 20 c) a recommendation letter from a head of a related governmental organization;
- d) a certificate of an internationally recognized English knowledge test (TOEFL, IELTS).

As further outlined in the WFU reports about the Pilot Programme, admission procedures then proceed in the sequence of application form registration followed by document
25 screening and admission acceptance notification.

Apparently, the WFU Graduate School also offers extra courses during the seasonal sessions giving students with apparent knowledge gaps the opportunity to catch up and overall contributing to the harmonization of the competence level of the students. However,

with a view to the entrance requirements and the heterogeneity of the educational backgrounds of applicants, the coordinators pointed to limited staff capacities as a major impediment of further corrective actions (see below sec. D-8).

Analysis and assessment of the expert panel

5 The peer panel takes note of the rules for admission and enrolment. As the Pilot programme claims to confer knowledge and skills at the Master's level, a prior Bachelor degree (being one of the formal prerequisites) is a necessary precondition. The panel observes that the application requirements are still relatively unspecific and open, leaving room for applicants with very heterogeneous educational backgrounds. Otherwise, the expert panel is
10 fully aware that the programme specifically aims at a broad and interdisciplinary education at Master's level in order to strengthen the professional capacity basis in the fisheries sector of developing countries. Consequently, the majors in this Master's programme stretch from *Aquaculture Technology* to *Fisheries Resource Management* to *Fisheries Social Science*. As a result, entry requirements must not be determined too strictly, consequently
15 allowing students with very divergent academic records to apply for and enter the programme. The above-mentioned list of enrolled students attests to this, evidencing a broad array of disciplinary backgrounds. Still, admission requirements do have a major stake in the quality assurance of degree programmes in that they are, as a rule, expected to ensure that students admitted to the programme have the necessary competencies to achieve its
20 learning objectives. Since students of the Pilot Programme have to choose their major before they start their studies, this might be achieved through defining (additional) major-specific entry requirements. If, however, the Graduate School decides that the admission requirements are to be set more broadly in order to accord with the programme objectives, it will then be of utmost importance that the education provider tailors the application and
25 study process accordingly.

Thus, for instance, it is already communicated in the so-called "preferential conditions" that a Bachelor's degree in a fisheries-related field will be positively evaluated in the admission process. Given that a divergent group of applicants with regard to their prior degrees is in the very logic of this three-major Pilot Programme, it remains to be seen how
30 the Graduate School deals with this divergence in the study process itself. The question then will be whether it takes adequate measures to ensure that the knowledge level of the students is harmonized taking into account the individual major and maintaining the overall Master's level. In that respect, the peers positively evaluate the meticulous admission procedure apparently put into practice when recruiting the 30 students for the programme. They welcomed that the Graduate School followed up the actual learning progress of
35 students by offering non-credit extra courses during the seasonal sessions in order to support

students with weaknesses or outright skills gaps. Yet, lecturers also report about necessary adaptations of the curriculum due to missing knowledge to ensure, for instance, that students possess enough statistical knowledge for economic modelling. Thus, the extra courses primarily seem to be offered *ad hoc*. Moreover, as on-the-fly curricular adaptations suggest, they may not come timely enough. Students confirmed the impression that the lecturers have always done their best to deliver necessary knowledge, where this was lacking, yet also complained that this was not always enough. Although study progress results indicate overall satisfying assessment scores so far, the expert panel recommends providing subject-related preparatory courses as early as possible, preferably before the start of the studies. Regarding prerequisite knowledge for applicants of all three majors, basic knowledge in the biology of fishes and aquatic animals, oceanography, economics and mathematics, particularly statistics is considered indispensable. A possible successor programme then should anticipate that applicants would not necessarily have all of this basic knowledge. By offering preparatory courses in the mentioned subjects, the programme management might counter the divergent backgrounds more systematically and timely. That of course would also include that sufficient teaching staff is available for such offers.

Further, the peers question whether the vague specification of the necessary level of English language proficiency serves its purpose. They understand the argument that the English skills of the target group in developing countries is too diverse to be more specific or restrictive on this issue. In addition, the panel assumes that other indicators with regard to language competence (for instance, the motivation letter in combination with an interview) will provide an adequate evaluation basis. However, the peers underline the benefit of supplementary (non-credit) language courses provided for the students of the precursor (1st Pilot) programme and strongly suggest supporting students with English courses, if not already done, in the current or any future programme.

The peer group understands and appreciates that this programme is specifically addressing the needs of the fisheries sector in developing countries. Strengthening the professional expertise on the related upper and lower levels of state, economy and society therefore suggests reserving the programme to students of those countries in the first place. Notwithstanding, it would also be reasonable in the eyes of the peers to admit a small portion of students of the host country in a possible successor programme. Korean students might act as intercultural translators in the respective student cohort, alleviating communication and co-operation between the students as well as widening the perspectives on the fisheries sectors in developing and developed countries respectively. The Korean government has convincingly stressed its own experiences in developing this sector since the midst of the last century when approaching the FAO to jointly establish and implement a Master's degree programme in Fisheries Science. In the peers' opinion, this project in a sense falls

short of its potential, if the Korean endeavour is not reflected on the student' level as well. To envisage a multicultural student cohort through selecting 30 students from different developing world regions in their view would be meaningfully supplemented through opening the programme for a small number of Korean students. Whether these students are not or only partially eligible to financial benefits the MOU foresees for its students (such as the exemption from tuition fees) could then be subject to a decision of the major stakeholders of the programme.

The discussion with students reveals that the administrative obstacles students have to overcome in the course of the application process (providing documents for several involved government and university institutions, visa procedure and organisation of travel) are time-consuming and indeed hardly manageable within the foreseen time-period. The peers trust that the FAO WFU institutions involved in this, especially the (administrative) programme coordinator, have done their best to support students quickly and effectively. Nevertheless, it might be advisable for the future to extend the application period in order to enable students to better cope with the documentary and administrative requirements.

Generally, the peers positively acknowledge the programme management's caretaking of the results and feedback from the precursor programme, not least visible in the balanced composition of the student cohort with reference to gender and country of origin.

Recommendations after preliminary assessment

It is recommended to provide students with adequate offers for closing knowledge and skills gaps before commencing their studies in order to enlarge their ability to achieve the intended learning objectives at Master's level.

It is recommended to open the programme for a limited number of Korean students in order to foster the intercultural understanding and exchange amongst the students.

It is recommended to prolong the application period for the degree programme in order to enable students to better cope with the documentary and administrative requirements of the admission process.

D-5 Didactical Methods and Support Services

Evidence

- Course Syllabus, provided by FAO WFU on request
- Additional information about the programme provided on request

- Art. 26 (“Supervisor”) GSR; available on the internet:
http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=1&no=0 (Download: 23.02.2021)
- Excel file “Gender, Age Distribution Student Cohort”, additional information provided by FAO WFU
- Information about support services provided in the “Programme Information: 2020 Graduate School of FAO World Fisheries University – Pilot Programme, Master’ Degree Programme”; available on the internet: http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=4&no=0; condensed information also available on the website of the Pilot Programme:
<http://wfu.pknu.ac.kr/html/sub03/sub0305.php> (Download: 23.02.2021)
- Audit discussions

Description of status quo

The courses of the FAO WFU Pilot Programme are mainly delivered in lecture or seminar mode. The Course Syllabus entails indications of integrated field trips in at least some of the courses. In principal, laboratory units or experiments are not foreseen as a mandatory part of the programme or in any major. However, if students particularly of the *Aquaculture Technology* major decide to conduct an experimental Master’s thesis or to enhance the thesis through laboratory research, the Graduate School and PKNU reportedly will support them by way of providing access to the laboratory facilities of PKNU or in research facilities at the nearby Busan harbour area. Project components in the courses are included at the discretion of the lecturers – as the programme coordinator pointed out. Likewise, internships or planned student mobility are no regular feature of the curriculum.

Applicants are supported during the preparation and application stages and, after admission, are helped with all issues concerning the accommodation and living conditions in South Korea that they encounter. Comprehensive information about the support services for students is provided in the “Programme information” brochure and, additionally, on the FAO WFU website, although in a very condensed manner there. As regards the guidance of students during their studies, the available information shows that lecturers are accessible for consulting services on a regular basis during their office hours. Moreover, an academic supervisor is appointed for each student, who takes care of his/her entire study progress as well as the thesis writing process.

Analysis and assessment of the expert panel

Teaching and Learning

In principal, the expert panel considers the major teaching forms appropriate to achieve the intended learning outcomes. They are aware of the severe restrictions the Covid-19 pandemic has imposed on the conduct of the programme. The cancellation of field trips as the only didactical means providing direct insights into practical aspects of the theoretical knowledge delivered is considered particularly detrimental here. The more so, since laboratory units are no compulsory part of the curriculum of any major (not even the *Aquaculture Technology* major) and small projects left to the discretion of the lecturers. Thus, the way in which theoretical knowledge translates into practical and application-oriented competence is seriously limited in this Master's programme. That is crucial with a view to the self-imposed claim to educate highly professional experts for the fisheries-related sectors of the students' home countries (see also the peers' assessment in sec. D-3). Apart from being impractical in pandemic times, even the field trips are not described in more detail in the respective course specifications ("Course Syllabus"), which would be recommendable for any successor programme.

Otherwise, the peers highly appreciate that the lecturers have adequately responded to the pandemic situation by quickly adapting to an online mode of teaching and – as far as possible – changing between classroom and remote teaching. Students have explicitly praised this flexibility.

Furthermore, the peers welcome that the Graduate School has included and tailored to the needs of each major a *Thesis Research Methodologies* course in an effort to enlarge the students' research competences. The panel again deems this a constructive response to the evaluation results of the First WFU Pilot Programme. In addition, it considers the participation of the students in the 2020 Conference of the "Korean Society of Fisheries and Aquatic Science" through oral and poster presentations in a separate WFU conference section a worthwhile learning experience for the Thesis preparation.

Support Services

The peers consider the student support services in place for the students of the Pilot Programme appropriate. In particular, they find the programme coordinator effectively serving the special needs of the students of this programme. This applies also for the application process and during the admission procedure, where the administrative staff have been assisting the students as far as possible. In addition, the students unanimously shared the panel's impression that the Dean and the teaching staff are always accessible for them in case of any difficulties or queries coming up.

An introductory week, providing information and cultural events for the students at the start of the programme might have helped in avoiding cultural frictions, which apparently occurred on occasion. The programme coordinator pointed out that this part of the programme, successfully experienced in the previous Pilot Programme, had to be cancelled due to the pandemic too. Still, the panel considers the introductory week an important means to convey intercultural values from the onset and assumes it to be a regular component of any successor programme.

Recommendations after preliminary assessment

No specific recommendations in this section. *Refer also to preliminary assessment of peers in section D-3.*

D-6 Workload and Credit Point System

Evidence

- Information about the credit point system in use in the FAO WFU Pilot Programme report and requested additional information provided by FAO WFU
- Information about the allocation of credits on the website of the Pilot Programme: <http://wfu.pknu.ac.kr/html/sub02/sub0202.php> (Download: 23.02.2021)
- Art. 17 of the Graduate School Regulations (GSR) of PKNU as of 31.10. 2017, available on the internet: http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=1&no=0 (Download: 23.02.2021)
- Audit discussions

Description of status quo

This Pilot Programme has implemented the Korean credit point system. Students are required to take up three to four courses in one semester earning them a maximum of 12 Korean credits per semester. In the seasonal session, they could be awarded up to six additional credits. In sum, students are required to complete 24 Korean credits at a minimum plus the *Thesis Research Methodologies* and *Thesis Research* courses in the seasonal sessions and the last term respectively (altogether 4 credits) and finally have to prepare, write and defend a (*non-credit but mandatory*) Master's Thesis.

The credit point system in use is almost entirely concerned with the attendance time of students in the respective teaching forms (lectures, seminars, lab units or dissertation re-

search). According to the defining rule in the GSR, one credit shall be awarded for the completion of at least 15 hours of education. At the same time, the respective provision states that by contrast for “experiment practice, practice, dissertation research or seminar, and other curriculum” one credit shall be awarded for the completion of at least 30 hours of education in each semester. From the additional information gathered during the preparation of the audit, it becomes clear that FAO WFU in its credit point allocation takes into consideration the workload students are supposed to invest into studying the courses. As pointed out there, another 15 hours of self-study time on average is added up to each credit amounting to altogether 30 hours per credit, which would be equalling 1 Korean credit to 1 ECTS. The fact that the average 3 (Korean) credits courses of the curriculum are translated into usually 5 ECTS seems to be derived from the above cited provision. As a result, the workload according to the Graduate Schools’ account would amount to roughly 20 ECTS per semester or 40 ECTS in total.

To date, no *systematic* monitoring of the student workload is undertaken and no process implemented for this purpose so far. In fact, one item of the student satisfaction survey indirectly addresses the issue: “The number of credits (12 credits) taken during this semester was quite manageable for me to follow up the course.”

Analysis and assessment of the expert panel

The peer panel takes note of the Korean credit point system put in place for the Pilot Programme. Obviously, student workload is not formally reflected in this system; yet the programme coordinator has clarified how this system translates into the ECTS and thereby included the estimated students’ workload for the preparation and follow-up of the teaching class sessions. The approximately 20 ECTS per semester would be a comparatively moderate workload. On request, the students overall confirm to that credit attribution and underlying workload assumption, although cautioning that actual workload investments might deviate according to the individual style of learning. What remains to be clarified is how the 12 credits threshold fits into the curriculum of the first semester. If students are required to take no more than four courses in the regular semester, how then shall they be able to choose an additional elective, assuming that common (3) and compulsory courses (1) are to be taken anyway? The Graduate School is requested to briefly explain this inconclusive rule and the reason for the strict limit of just 12 credits per (regular) semester.

As to the students’ workload, no systematic monitoring is carried out yet. The workload-related question in the Student Satisfaction Survey mentioned above does not provide meaningful quantitative data, in particular with regard to individual courses. From the peers’ point of view, it would therefore be recommendable to elaborate the evaluation

forms in a manner that serves the purpose of a systematic workload monitoring. Establishing this QA instrument would be particularly meaningful, since all courses are awarded 3 (Korean) credits equally. Consequently, the credit point distribution claims that these courses entail a comparable amount of student workload, although the above-cited provision apparently acknowledges a higher workload for specific teaching units such as laboratory experiments or dissertation research. A regular and systematic monitoring of the student workload could and should then validate the underlying assumptions of the credit point distribution.

Furthermore, the peers see that certain student learning activities are not awarded with credits. The most prominent case in this respect is the Master's thesis. It seems plausible that extra-curriculum courses supporting the learning progress of the students are *voluntary* and thus not credited. By contrast, *mandatory* parts of the curriculum, which the Master's thesis is an essential element of, should be awarded a realistic number of credits, as they require a significant amount of the students' workload and consequently form an integral part of their learning achievements. Even more importantly, the quality and ultimately the comparability of the Master's theses are at risk, if the size of the thesis work is not bindingly established in terms of credit volume. Not least with respect to the international comparability of this or any successor programme, it is therefore recommended that all mandatory parts of the curriculum and, in particular, any thesis or capstone project is included in the credit point system in use and appointed a reasonable number of credits accordingly (see also the assessment in sec. D-7).

Request for additional information

Explanation of apparent inconsistency between 12 credits threshold and curriculum schedule of majors in the first semester and, in addition, clarification of the reasons behind the 12-credit limit per semester

Recommendations after preliminary assessment

It is recommended to put in place a viable monitoring scheme for student workload in order to allow for timely adjustments in case of significant discrepancies between credit allocation and workload calculation.

It is recommended to award a reasonable number of credits for all mandatory parts of the curriculum.

D-7 Examination System

Evidence

- Information about the examination system in the FAO WFU Pilot Programme report and requested additional information provided by FAO WFU
- 5 • Art. 17 of the Graduate School Regulations (GSR) of PKNU as of 31.10. 2017, available on the internet: http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=1&no=0 (Download: 23.02.2021)
- Information about the Graduation Process on the website of the Pilot Programme: <http://wfu.pknu.ac.kr/html/sub02/sub0204.php> (Download: 23.02.2021)
- 10 • Information about assessment and/or grading policy in the Course Syllabus, Appendix to the reports about the Pilot Programme provided by FAO WFU
- Audit discussions

Description of status quo

15 The study progress of students is regularly monitored through continuous assessments in each course. These assessments in most cases encompass different forms such as written and oral examinations, quizzes, tests, home assignments, term papers/reports, presentations, or else but do so at the discretion of the individual lecturers.

20 At least midterm- and final exams have to be passed in each course. In order to be eligible for the award of the course-assigned credits, the overall passing grade (American grading system) must not be below C0 (2.00/4.5), the minimum cumulative GPA for graduation being B0 (3.0/4.5). In addition, the students have to undergo a so-called “Comprehensive Examination” / “Graduate-Qualifying Examination”⁸ at the end of the second term or for that matter the second seasonal session (February actually)⁹, after having acquired 24 credits at a minimum. Subjects of this comprehensive examination shall be selected from each
25 major and must be more than three (Art. 32 No. 2 GSR). The minimum passing grade for

⁸ The GSR (Art. 32) use the term “comprehensive examination”, while the published “Programme information” of the second Pilot programme and the respective website of the Pilot programme are referring to the “Graduate-Qualifying Examination”.

⁹ Which, by the way, is contradicting the respective provision of Art. 32 No. 3 GSR requesting the comprehensive examination to be taken “in September”.

the comprehensive examination again is C0 (2.0/4.5). Failed comprehensive examinations may be repeated only once.¹⁰

5 The thesis research and writing process is described on the Pilot Programme's website and, apart from that, regulated in detail in the GSR. The entire process, which also entails an oral presentation ("Defence"), is supervised through an assigned academic supervisor (one of the professors in charge of the respective major). After completion, the thesis is up to the assessment of altogether three reviewers (supervisor plus two additional professors). All members of this "Dissertation Examination Committee" or "Thesis Advisory Committee"¹¹ are PhD holders.

10 Examples of course examinations of students of the Second Pilot Programme and of the Master's theses of students of the First Pilot Programme have been provided to the peers for online inspection.

The organisation and administration of the examinations rest with the Graduate School in accordance with the rules and regulations of the hosting PKNÜ.

15 **Analysis and assessment of the expert panel**

20 The peers conclude that the course examinations and examinations methods are principally suitable to assess whether and to which degree the intended learning outcomes have been achieved. They also see that, overall, the lecturers are using a variety of assessment forms – apart from written (midterm and final) examinations – thus indicating their effort to tailor the examination process to the course learning objectives. In that respect, the students were still undecided, as some of them comment that the variety of assessment methods could be increased in certain courses. Looking at the more detailed information about the exams in the "Course Syllabus" it is obvious that not all lecturers do make use of the full array of diverse assessment forms. Yet, the expert panel stresses that not the variety per se is important, but rather the adequacy of assessment forms to address the learning objectives defined for the course. The correspondence of learning objectives on the one side and teaching and examination methods on the other is always an issue to be regarded in a learner-oriented approach. In the opinion of the peer panel though, the Pilot Programme does not raise particular concerns in that respect.

¹⁰ Here too, the GSR (Art. 32 No. 6) and the website information apparently differ: the programme website and the programme information brochure clearly indicate that only one make-up exam is possible, while the respective stipulation of the GSR indicates the option of two re-sits in case of failing the comprehensive examination.

¹¹ Different terms in use in the GSR (Art. 37: "Dissertation Examination Committee") and in the different brochures as well as on the website ("Thesis Advisory Committee") respectively.

Regarding the number of exams, the fact that, usually, several assessments are practiced in the individual courses and thus morph into a form of continuous assessment is not seen critical by the expert panel. Firstly, the students are not complaining about the number of examinations, which they found adequate principally. In addition, they see enough room for the preparation of the examinations. Secondly, assessments at different stages of the course provide students with important feedback about their study progress allowing them to focus on deficiencies, if necessary, and thereby ensure a more sustainable learning in general.

The panel had the opportunity to inspect a sample of examinations of the actual programme and some final theses of the precursor programme. Overall, the impression prevails that examinations as well as thesis works are of adequate quality and fit the Master level expectations.

It has already been noted that as a mandatory part of the entire learning process the Master's thesis needs to be taken into account when it comes to the awarding of credits. The Master's thesis usually requires students to solve a problem in their subject field under time pressure applying the theoretical and methodological knowledge acquired during their studies. Consequently, its comparability needs to be ensured through a fixed time budget available for thesis research and writing.

From the information provided and comments of the professors during the audit discussions, the expert panel learnt that the students for the most part refer to and rely on data already available at PKNU, related institutions or in ministries or other governmental agencies of their home countries. In that regard, the peers are of the opinion that the process of data collection, analysis and assessment in the frame of the Master's thesis should be improved. The Master's thesis in their view provides an excellent opportunity to apply practical research competences by collecting the topic-related data onsite, preferably in their home country, and analysing/assessing them subsequently in the thesis elaboration. Concerning the previously discussed participation of a small number of Korean students in a possible successor programme, twinning thesis projects might also be considered. Twinning projects and, in particular, the inclusion of field trips for the purpose of data collection in the regular design of the Master's thesis would be an appropriate means for combining the perspective of global fisheries science with a local or regional focus. The panel therefore strongly suggests following this path should the FAO WFU Pilot programme be continued.

Recommendations after preliminary assessment

It is recommended to ensure the comparability of the Master's theses through defining the size of the thesis bindingly and awarding a reasonable number of credits.

It is recommended to include a field trip for the purpose of data collection in the home-countries of the students into the Master's thesis research work. This will serve the application-orientation and the respective regional focus of the degree programme.

D-8 Resources

5 Evidence

- “Programme Information: 2020 Graduate School of FAO World Fisheries University – Pilot Programme, Master’ Degree Programme”; available on the internet: http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=4&no=0 (Download: 23.02.2021)
- 10 • Dean’s Message on the FAO WFU Pilot Programme website: <http://wfu.pknu.ac.kr/html/sub01/sub0101.php>
- “Memorandum of understanding concerning the World Fisheries University Pilot Programme between the Food and Agriculture Organisation of the United Nations and the Ministry of Oceans and Fisheries of the Republic of Korea” as of 14 May 2019, 15 annex to report provided by FAO WFU
- “Information Paper about the World Fisheries University” provided by the Ministry of Oceans and Fisheries of the Republic of Korea
- Information about PKNU laboratory equipment in the field of fisheries
- Audit discussions

20 Description of status quo

According to the available information and documentation, the “World Fisheries University” is an institution established through a Memorandum of Understanding between the FAO on the one hand and the government of the Republic of Korea on the other. Its sole purpose is to implement and conduct the second FAO WFU Pilot Programme in Fisheries Science. As indicated in its denomination, the programme is a successor programme to the 25 first WFU Pilot Programme operated between 2017 and 2019 at PKNU on the initiative of the Republic of Korea and with the commitment, yet not formal engagement of FAO. As opposed to that, FAO participates formally and practically as an essential collaborating organisation in the second WFU Pilot Programme running from 2019 to 2021.

5 Embedded into this, as WFU's operational entity is the "Graduate School" of the WFU at PKNNU. The Graduate School actually operates the programme and for this purpose has established the only programme-related regulatory framework ("Graduate School Regulations of PKNNU (FAO WFU Pilot Program)"). These regulations date back to 2017 and obviously have been established for the first Pilot Programme, but are still in force according to the comments of the WFU management.

10 According to the MOU, the staff budget to be administered by the PKNNU was supposed to cover nine national professors, one of them being Dean of the Graduate School and Chief Academic and Administrative Officer, three international professors, six lecturers, one Head of Administration as well as three office assistants. As can be learnt from the staff information on the Graduate School website as well as from the reports provided by the School, the available staff of the Pilot Programme comprises altogether six professors, including the Dean of the School, three international (advisory) professors and an administrative staff of altogether four persons.¹² Staff CVs have been provided evidencing the academic record and professional experiences of the teaching staff of the programme.

15 No specific laboratory equipment has been purchased for nor used in the Pilot Programme. In case, students (particularly of the *Aquaculture Technology* major) strive to undertake an experimental Master's thesis or need laboratory support in conducting their thesis, they could refer to the PKNNU laboratory units and personnel for further assistance (more information about PKNNU's fisheries-related laboratories and lab equipment has been provided).

20 In addition, the annex to the MOU points to the stand-alone fisheries-related business and research cluster in Busan, the host university's location and largest harbour in the country. A host of research institutes such as "National Institute of Fisheries Science", the "Korea Fisheries Resources Agency", the "Korea Maritime Institute", the "Fisheries Monitoring Centre" and many others are located at Busan harbour and expected to become co-operation partners allowing both the academic staff and the students to interact and use their laboratories, libraries and other facilities. Besides FAO and MOF, the MOU has named PKNNU and Busan Metropolitan City as principal stakeholders of the Pilot programme.

25 The MOU clearly states that all funding related to the development and implementation of the Pilot Programme will be covered exclusively by the Republic of Korea or for that matter the MOF (Art. VI).¹³ This includes costs for PKNNU and international staff, FAO personnel,

¹² The administrative staff comprises the Chief of Administration, the team manager, the general affairs officer and the programme coordinator.

¹³ With regard to FAO, Art. VI No. 2 provides that „This MOU implies no financial or other resource commitment by FAO. No costs relating to [the] implementation of this MOU shall be met from the Regular Budget

but also student scholarships as well as accommodation and subsistence costs of students and a specified monthly living allowance of roughly 550 USD. Accordingly, all students admitted to the programme are granted scholarships by the Korean government.

Analysis and assessment of the expert panel

5 The peers appreciate that – as a part of the MOU – the number and size of administrative and teaching staff has been determined precisely. At this point, they also welcome that
10 FAO has committed itself to provide personnel for administrative tasks and limited teaching assignments. Except of the “nine national professors”, whose status and role is barely visible in the available information, the MOU partners apparently managed to staff the Graduate School and the Pilot Programme accordingly. Obviously, all courses are delivered by the six lectures/professors recruited for this purpose. These are – according to their CV’s – highly reputed international experts in major-related fields of expertise, yet employed for the duration of the programme only (1,5 years). In the medium and long term of course, a combination of visiting lecturers and permanent professors might contribute to consolidat-
15 ing the Graduate School and its programme(s) and attracting highly qualified international personnel. The panel would be expecting this in case of a decision in favour of the Graduate School/the Pilot Programme. Included here are also staff resources necessitated by additional preparatory classes should such classes be planned in the future. Still, the composition of the staff and, in particular, the recruitment of professors of the target (developing)
20 regions is well received by the peers, although a more gender-balanced teaching staff might enrich the perspectives of an already excellent and experienced staff.

The peers understand that the Covid-19 pandemic has also laid considerable restrictions on efforts to establish contacts and collaborations with institutions, businesses and organisations in the fisheries sector. Even in case of the extra-ordinary market, business and re-
25 search environment of the Busan harbour, contacts and cooperation are scarce or barely visible. Yet, the peers consider networking with a broad array of stakeholders in the fisheries and aquaculture field such as fishermen unions, small processing enterprises, government agencies and ministries etc. a decisive means of an effective governance of the fisheries sector in developing countries. Students and graduates of the programme could be
30 multipliers as well as beneficiaries of successful networking activities of this kind. That is why the panel encourages governance partnership networking by the Graduate School or its successor institution in order to raise the potential impact of the programme and its graduates.

of FAO.” No. 3 establishes that “The Ministry shall ensure the availability of financial and other resources necessary for the successful implementation of this MOU.”

5 The peers welcome the initiative of the Korean government and its proven willingness to bear the costs of hosting and delivering the Pilot programme. They appreciate that the government funds cover the study fees as well as costs for accommodation and subsistence of the students. The panel concludes that this funding is adequate generally. However, as the discussion with the students clarified, consumables (bottles, chemicals etc.) or travel costs incurring during their studies are not covered by the government funding, but could easily become serious financial hurdles. Hence, the peers suggest awarding students of a possible successor programme with a (small) stipend covering extra-ordinary material expenses of their studies.

10 The peers take note of the complex institutional framework, in which the Pilot programme is embedded. They highly value that the programme is principally running well despite these complexities. The translation of the MOU between an international organisation like the FAO and a national government represented through the MOF into an appropriate institutional setting capable of operating the Pilot Programme has been surprisingly successful. In the view of the expert panel, this is not least due to the precursor Pilot Programme, in which constituent elements of the now established infrastructure of the programme have been established.

15 Speaking of the “World Fisheries University” when in fact addressing the *Graduate School* of the FAO WFU nevertheless appears to be misleading and the phrase “Graduate School of the FAO WFU” is no improvement. The umbrella name “World Fisheries University” does not have any more or other institutional or legal substance than provided by the host university (PKNU), which is the sole authorized degree-awarding institution in this multi-stakeholder cooperation. It is thus much more accurate to point to the Graduate School as an institutional subunit within PKNU that operates the Pilot programme and is deemed to end with the completion of the programme. As in the case of the title of the Pilot programme (see above D-2), the expert panel suggests that if the collaboration between FAO and the government of Korea shall be continued, the FAO WFU be formally institutionalized and a successor programme be set up, the incorrect and misleading “WFU” term should be abandoned. This would also meaningfully clarify and underline that irrespective of its active participation (even in the development and delivery of the curriculum) FAO is not an educational institution. It would also highlight the lead role of the hosting university in all issues related to the design, implementation and (further) development of the Master’s programme, notwithstanding the co-operation and coordination with FAO as stipulated in the MOU.

20
25
30
35 The indispensable role of the host university in implementing this and any successor degree programme is in the eyes of the peers still somewhat underrated in the MOU. In this document, the institution (PKNU) providing not only the infrastructure and lab facilities, but

also teaching and administrative staff ensuring a smooth delivery of the programme is largely reflected as an institution receiving instructions for and executing the implementation of the Pilot Programme. That is the overall impression in spite of the relationship envisaged in Art. I MOU that the “pilot joint Master’s degree (MSc) programme in fisheries” shall be delivered “*in cooperation with the hosting University*”. Such cooperation would suggest to at least reserving the hosting university a seat in the “Steering Committee” set up for the monitoring and governance of the programme (be it an observer status or regular member status). It is fully understood that the FAO concludes agreements with national governments instead of other state or private institutions. Yet, this does in no way preclude that the partners of the MOU ascribe such status to whatever institution they deem suitable for the achievement of the purposes of the MOU. FAO and MOF amply demonstrate this in the MOU when they invest the “Focal Points” (major contact persons in FAO and MOF, presiding the Steering Committee) with the competence “to invite representatives of the hosting University [...] to attend all or part of the meetings of the Steering Committee” (Art. V No. 10 MOU). How shall the Steering Committee reasonably fulfil its major obligations, which amongst others are the review and approval of curricula, without reliable input from within the programme itself or the institution offering it and awarding the degree? The representatives of FAO, MOF and PKNU concurrently confirmed that de facto all decisions of the Steering Committee with regard to the Pilot programme have been taken unanimous with PKNU having its own say in it. The panel highly welcomes this. However, the impression of an imbalance on the contractual level remains.

Generally, the MOU in its effort to regulate all relevant issues in advance and to meticulously determine the role of each partner and other relevant stakeholders might do too much, particularly with regard to the QA of the programme. The MOU establishes a QA structure of monitoring, reviewing, reporting instruments, which parallels that of PKNU and the Graduate School. Although in particular FAO understandably aims to maintain a level of direct control over the programme – which finally is designed and delivered in its name and with its consent –, this will not necessarily lead to improved QA or better study results. In addition, that may be achieved without doubling processes and procedures, which are burdening the involved institutions anyway. This is notwithstanding the peers’ conclusion that the QA processes of the Graduate School could be improved (see sec. D-9).

The expert panel will not go into more detail here, but recommends to thoroughly reconsider the MOU as well in case of a positive decision about the continuation of the Pilot Programme. Rights, obligations and responsibilities of all partners should be addressed more adequately in accordance with each partner’s respective competence and capability.

Recommendations after preliminary assessment

It is recommended to encourage governance partnership networking by the Graduate School or its successor institution in order to raise the potential impact of the programme and its graduates.

5 *It is recommended to also award students with a (small) stipend covering material expenses (consumables such as bottles, chemicals, travel costs etc.) of their studies.*

D-9 Quality Assurance Management

Evidence

- 10 • Chapter about quality assurance of the Pilot Programme in the supplementary report about the programme provided by FAO WFU
- Evaluation results in courses presented by FAO WFU in the first report about the Pilot Programme
- Art. V MOU concerning “Monitoring, Reporting and Review of the Cooperation”
- 15 • Evaluation forms (Course Evaluation and Questionnaire) provided in the supplementary report about the Pilot Programme by FAO WFU
- Audit discussions

Description of status quo

20 According to the available information, the quality assurance of the Pilot Programme is essentially executed through the monitoring activities of the FAO MOF Steering Committee as well as by way of course evaluations and the overall programme satisfaction survey conducted by the Graduate School in cooperation with PKNU.

25 Regarding the latter, exemplary evaluation results have been provided for the Spring Semester 2020 and the Summer (seasonal) Session 2020, indicating on average high approval rates for the courses. One programme satisfaction survey has been carried out already at the end of 2020. An additional “advanced survey” shall be conducted at the end of the programme. Reportedly, course evaluations are processed online within the PKNU QA framework, yet the “Programme Satisfaction Survey” is said to be independently developed and conducted by the Graduate School. All QA instruments in the view of the WFU programme management are aiming at “fostering feedback between the faculty and the students in order to promote education development centered on student needs and experiences”.

30

The reporting about the Pilot Programme also stressed that several measures have been taken in response to the recommendations of the evaluation of the first Pilot Programme. Thus, for instance, a more balanced gender ratio in the student cohort, extra-credit courses in order to bridge skills gaps, measures to enlarge research-related as well as practical capabilities of students are highlighted.

Analysis and Assessment

As mentioned earlier, the peers appreciate the commitment of FAO and MOF in the provision of this significant Pilot programme, which they would like to see continued. From their perspective, it is fully comprehensible that the acting partners of the MOU also have their stakes in the QA of the Pilot Programme. The important role of the Steering Committee in that respect has already been appraised (see sec. D-8). It is reasonable that the Steering Committee (comprised of FAO and MOF representatives) oversees the delivery of and developments within the programme and that major decisions with regard to the programme are subject to its approval. Yet, it should always be kept in mind that PKNU, the Graduate School, and ultimately the professorial teaching staff have the responsibility and expertise in operating the Master's programme. By contrast, neither the FAO nor the MOF are educational institutions. Consequently, the Steering Committee and its role as the governing body of the programme might be acting more remotely or having its ranks permanently supplemented with academics of the host university/Graduate School.

In either case, this needs to be coordinated with QA procedures and instruments practiced on the School's and programme's level. Regarding this, it may be fairly stated that the QA framework for the Pilot programme is limited to practicing essentially two familiar QA tools, course evaluations and Student Satisfaction Surveys (apart from external quality assurance procedures such as this evaluation or a possible accreditation). These seem to work well as judged from the results, although students complain the lack of a systematic feedback from the teaching staff with respect to their individual follow-up of the course evaluation. Closing feedback cycles through pro-actively including the students into the QA processes should therefore be an issue to be followed up in case of a continuation of this programme. In the audit discussion, students also highlighted that course evaluations and Student Satisfaction Surveys miss out or barely cover many study-related topics they consider important like, for instance, the didactical quality of the courses or the pedagogical competencies of the lecturers. The expert panel therefore suggests to revise and further develop the respective questionnaires in order to provide the Graduate School and the professors with more significant information about the courses and the entire programme respectively. This will certainly provide an additional source of information from one of the major stakeholders for the further development of this and any successor programme.

Irrespective of this, the peers highly value the overall close and trusting relationship between students and lecturers/administrative staff, which has considerably consolidated their informal community.

5 Finally, the peers appreciate that conclusions have been drawn from the evaluation of the first Pilot programme and taken as starting point for the revision and establishment of the programme under review. The panel expects and strongly suggests keeping this approach for the best of a successor programme.

Recommendations after preliminary assessment

10 *It is recommended to generally strengthen the student's participation in the quality assurance processes of the programme, and in particular to ensure feedback to them about the results and measures taken in the follow-up process.*

15 *Course evaluation and student satisfaction questionnaires should be revised and further developed to provide more meaningful information about major course- and study-related issues (learning objectives, contents, exams, and student services, professional and pedagogical competencies of lecturers etc.).*

D-10 Transparency and Documentation

Evidence

- FAO WFU Pilot Programme website:
<http://wfu.pknu.ac.kr/html/sub01/sub0101.php> (Download: 23.02.2021)
- 20 • Programme Information: 2020 Graduate School of FAO World Fisheries University – Pilot Programme, Master' Degree Programme; available on the internet:
http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=4&no=0 (Download: 23.02.2021)
- Course Syllabus, provided by FAO WFU on request (not available on the internet)
- 25 • Graduate School Regulations (GSR) of PKNU as of 31.10. 2017, available on the internet: http://wfu.pknu.ac.kr/bbs/dn_index2.php?table=reference&file_id=1&no=0 (Download: 23.02.2021)
- “Memorandum of understanding concerning the World Fisheries University Pilot Programme between the Food and Agriculture Organisation of the United Nations and the Ministry of Oceans and Fisheries of the Republic of Korea” as of 14 May
30 2019, annex to report provided by FAO WFU (not available on the internet)

- Audit discussions

Description of status quo

5 Essential study-related information (such as the programme information brochure, the study and exam regulation, the curricula of the majors, the staff and support services) is provided by FAO WFU and mostly available on the internet. However, the course specifications (“Course Syllabus”) for the programme are not accessible on the internet.

Analysis and assessment of the expert panel

10 The peers find all study-related material – with the important exception of the course specifications (“Course Syllabus”) – readily available on the internet. Generally, they consider the website of the programme informative and clearly structured. If in fact not yet done, the “Course Syllabus”, which is a major document, should be made accessible to all stakeholders.

15 Still, instructive and important documents like the “Programme Information”, “Academic Handbook” and “Graduate School Regulations” are not easy to find under the column “References” on the Pilot programme website, where an international audience would hardly search for them. These documents should be placed more prominently on the website.

Recommendations after preliminary assessment

No specific recommendation, see for the course descriptions above sec. D-3.

E Additional Documents

In order to enable a final assessment of the peer panel, the FAO WFU Graduate School is requested to provide additional information on following issues:

1. Explanation of apparent inconsistency between 12 credits threshold and curriculum schedule of majors in the *first semester* and, in addition, clarification of the reasons behind the 12 credit limit per semester [D-6]

F Comment of the FAO/WFU Graduate School (15.04.2021)

D-1 Study Objectives and Learning Outcomes

5 1. *(Recommendation) It is recommended to specify the overall programme learning outcomes – apart from and in combination with the learning objectives of the individual majors – in order to clearly differentiate shared qualifications from those individually reflected in the different majors. Targeted fields of professional activities of each major study track should be outlined there.*

RESPONSE

10 The study objectives and Learning outcomes are specified in the Joint Pilot Programme MOU and the WFU website . The objective of WFU is for the students completing WFU of the academic course to return to their country and contribute in the development of sustainable and responsible fisheries, ultimately achieving the UN SDGs such as the eradication of poverty, etc. Given that above objectives, the short term learning outcome of WFU is for
15 the graduates to contribute as an expert in fisheries related fields such as fisheries administration, fisheries services, fisheries research, fisheries management, etc so that accelerate their country's fisheries development. The long term learning outcome is to overcome hunger and poverty by being able to provide good quality animal protein such as fish to their people on the basis of this strengthening of human capacity.

20 To check whether the short term outcome is achieved, WFU contacted the graduates of 1st Pilot Programme last year and asked what they are doing. It is figured out that most graduates of the pilot programme are contributing to fisheries development of their country as senior fisheries officers or as key executives in the fisheries industry.

25 **D-3 Curriculum, Structure and Practice Orientation**

1. *(Recommendation) It is recommended to enhance the practical, application-oriented parts of the curriculum (through labs, field trips, projects, case studies or else) in order to ensure that the theoretical knowledge adequately translates into practical competencies in the respective field.*

RESPONSE

The rising challenges of fisheries in developing countries are fisheries policy development, fisheries resources management, and aquaculture development. Considering the various demands of the fisheries sector from developing countries, the WFU Pilot Programme has
5 three majors (Fisheries Social Science, Fisheries Resource Management and Aquaculture Technology) and carries out theoretical education and practical education in a balanced manner in three separated majors.

This balanced theoretical and practical education was successfully carried out in the 1st Pilot Programme. However, in the 2nd Joint Pilot Programme, many practical education
10 activities such as on board exercise (5 nights 6 days), field trips to fisheries related institutions, etc were inevitably canceled due to the pandemic.

Even under these circumstances, to provide practical education to students as much as possible, field trips to the Fisheries Quarantine Center in the National Institute of Fisheries Science and Korea Trading and Industries Co. Ltd (fishing net and fishing gear manufactur-
15 ing company) were carried out.

As ASIIN recommended, we share the importance of practical education and in the process of establishment WFU, we will review to increase more practical education opportunities to enhance student's theory application ability while considering the balance with theoretical education.

20 *2. (Recommendation) It is recommended enabling students to take courses of other majors or other degree programmes at the host university above the maximum 12 credits per semester.*

RESPONSE

WFU is temporarily operated by PKNU and therefore is treated as a graduate school of ROK
25 subject to the Higher Education Act Enforcement Ordinance and PKNU Statute Article 54 which limits the maximum credit for application per semester to 12 credits. The 12 credits limit is implemented to ensure students' self learning time outside class hours. However, considering the recommendation by ASIIN, the 12 credit limit will be reviewed when WFU is formally established.

30 *3. (Recommendation) It is recommended to revise the Course Syllabus according to the indications in this report.*

RESPONSE

To flexibly modify course plans in accordance with the needs of developing countries and students, the course objective is set up broadly. However, as the recommendation by ASIIN, to apprehend the contents of the course more easily through the syllabus, when WFU is formally established, the objective and contents of the syllabus will be supplemented specifically. Meanwhile, regarding the notification of the syllabus, as a follow-up measure WFU immediately posted the syllabus on the website .

4. *“Concerning the sequence and content of the courses in the different majors, the expert panel consider them plausible. Alternatively, one might think about providing the common core and fundamental courses in the first semester and follow up with the major-related compulsory courses and electives of individual choice in the second. This would leave students with more time to choose the major on the one hand and more room to socialize as an international and multicultural student group on the other. However, the scheduled structure and content of each major do not raise specific concerns and the students in general attest to this assessment.”*

RESPONSE

Aiming for the students to acquire as much basic knowledge related to fisheries before taking their major courses, the curriculum of the Joint Pilot Programme mainly places common courses in the 1st semester. In other words, under the situation where the duration of the pilot programme is limited, WFU provided as many opportunities to the students to take common courses before taking major courses. However, as recommended by ASIIN, when WFU is formally established, we will review the securement of way to select their major after taking the common courses or change their major during their education period for student’s convenience.

25 **D-4 Entry Requirements and Admission Process**

1. *(Recommendation) It is recommended to provide students with adequate offers for closing knowledge and skills gaps before commencing their studies in order to enlarge their ability to achieve the intended learning objectives at Master’s level.*

RESPONSE

30 Due to realistic limitations of the Joint Pilot Programme such as time, human and material resources in organizing a preparatory course before the formal semester, a preparatory course was not possible. However, to minimize gaps between students, WFU offered 4 non-credit courses(aquaculture/resource) ranging from basic courses to advanced courses dur-

ing the seasonal sessions(summer/winter). As these courses bridged knowledge gap between students and provided opportunity to obtain basic common and major knowledge, it can be evaluated as an effort to overcome the limitations of the pilot programme.

5 2. *(Recommendation) It is recommended to open the programme for a limited number of Korean students in order to foster the intercultural understanding and exchange amongst the students.*

RESPONSE

10 The objective of WFU is strengthening developing countries' capacity in the fisheries and aquaculture sector through fostering fisheries and aquaculture experts. To this end, admission to WFU is given to students from developing countries in priority. To assist students of WFU in understanding various cultures including the Korean culture, Korean language courses, gatherings by major, sports events were planned in the 2nd pilot programme just as the 1st pilot programme. However, the planned activities were canceled due to the pandemic and culture exchange opportunities between students were also limited.

15 As ASIIN recommended, we agree that Korean students can act as a communication window and facilitate a multicultural atmosphere. Therefore, when WFU is formally established, Korean students' admission to WFU will be considered to the extent that the purpose of WFU does not go against.

20 3. *(Recommendation) It is recommended to prolong the application period for the degree programme in order to enable students to better cope with the documentary and administrative requirements of the admission process.*

RESPONSE

25 The application period for the WFU Joint Pilot Programme was approximately two months (September 2, 2019 ~ October 31, 2019) which was a three week extended period compared to the 1st programme. To shorten the administrative process and time consumed for application-preparation, WFU sent cooperation request letters to each countries' embassies through the ROK Ministry of Foreign Affairs to support actively the students' application process. As such, the 2nd Pilot Programme of WFU contemplated and applied various options to minimize difficulties that may arise in the administrative departments of each country.

30

When WFU is established, promotional activities such as holding an online WFU briefing session before application period will be carried out to assist students so they can sufficiently prepare their studies.

D-6 Workload and Credit Point System

1. (Recommendation) It is recommended to put in place a viable monitoring scheme for student workload in order to allow for timely adjustments in case of significant discrepancies between credit allocation and workload calculation. It is recommended to award a reasonable number of credits for all mandatory parts of the curriculum.

RESPONSE

The credit point distribution of the WFU Joint Pilot Programme is based on the instructor's lecture hours (1 credit point for every 15 hours) in accordance with the Higher Education Act Enforcement Ordinance and the PKNU Statute. Therefore, 1 credit point is awarded to the WFU's Thesis Research course. The part in this report indicating that the thesis research course is not awarded credits should be modified accordingly.

When WFU is formally established as an education institution under FAO, the inclusion of students' workload in the credit point distribution criteria will be legally reviewed.

Additionally, apart from credit points, WFU has established a student workload monitoring system. This system is operated by monthly report which the students write their study plan and workload and the academic advisor periodically manages individual monthly reports by the students.

D-8 Resources

1. (Recommendation) It is recommended to encourage governance partnership networking by the Graduate School or its successor institution in order to raise the potential impact of the programme and its graduates.

RESPONSE

WFU has established a cooperation network with leading fisheries institutions domestically and internationally to strengthen theoretic and practical education. Domestically, WFU has concluded 12 MOUs with industry, academic, government, and research institutions located in Busan and has established a network for WFU education. The institutions are : the local government Busan Metropolitan City, the government institutions (the National Institute of Fisheries Science and the National Fishery Products Quality Management Service), the academic and research institutions(PKNU, Korea Institute of Ocean Science and Technology, Korea Maritime Institute, Korea Fisheries Resources Agency, Korean Institute of Maritime and Fisheries Technology, Korea National Maritime Museum) and civil organizations (Busan Joint Fish Market, Busan Association of Refrigeration Warehouse and Busan Fisheries Policy Forum).

Through this network, experts from cooperating research institutions were invited as joint academic advisors to enhance the quality of education, and joint hands-on education such as field trip was carried out with these cooperating institutions.

5 Internationally, CONISMA of Italy and PKNU has established a network by concluding an MOU in November 2017. CONISMA is a marine science consultative body comprised of 32 universities. Through the cooperative relationship with CONISMA, WFU is seeking various cooperative projects such as student, professor exchange, joint research etc.

10 Several hands-on education activities were planned with the cooperating institution in this pilot programme but most of the plans had to be canceled due to COVID-19. On the basis of the cumulated experience, when WFU is established, the network with these fisheries related institutions will be actively utilized through building various online and offline channels.

15 *2. (Recommendation) It is recommended to also award students with a (small) stipend covering material expenses (consumables such as bottles, chemicals, travel costs etc.) of their studies.*

RESPONSE

20 To enable students of WFU to concentrate on their studies without financial difficulties, the Korean government is sufficiently supporting the students by providing various scholarship benefits such as a full waiver of tuition, meal expenses, dormitory accommodation, monthly allowance(USD 550), field trip expenses, etc.

25 *3. "As in the case of the title of the Pilot programme(see above D-2), the expert panel assumes that if the collaboration between FAO and the government of Korea shall be continued, the FAO WFU be formally institutionalized and a successor programme be set up, the incorrect and misleading "WFU" term should be abandoned. This would also meaningfully clarify and underline that irrespective of its active participation (even in the development and delivery of the curriculum) FAO is not an educational institution. It would also highlight the lead role of the hosting university in all issues related to the design, implementation and (further) development of the Master's programme, notwithstanding the co-operation and coordination with FAO as stipulated in the MOU."*

RESPONSE

30 The Government of the Republic of Korea is operating a pilot programme jointly with FAO as a preparation stage before the formal establishment of WFU. Due to the characteristics of a pilot programme, it is not possible to build an independent infrastructure for the WFU programme. Therefore, the WFU Joint Pilot Programme is temporarily operated by

Pukyong National University(PKNU) which has lead the development in the Korean fisheries industry. Because the facilities of PKNU are used in the WFU pilot programme, it may be misunderstood that WFU is a graduate school of PKNU. However, WFU of pilot programme is operated under a separate set of regulations necessary for the operation besides the statutes of PKNU and in the future is aiming to develop as an education institution under FAO. Considering this, it is appropriate that 'FAO' is included in the programme title.

D-9 Quality Assurance Management

1. *(Recommendation) It is recommended to generally strengthen the student's participation in the quality assurance processes of the programme, and in particular to ensure feedback to them about the results and measures taken in the follow-up process.*

RESPONSE

WFU is actively accepting students' feedback for the improvement of the university and academic programme. For example, this 2nd Joint Pilot Programme was operated reflecting suggestions made by the external evaluation report and graduates' interview on the 1st pilot programme.

More specifically, to provide sufficient information to students wishing to enter the programme on dormitory life, meals, transportation, amenities, university services and facilities, life in Busan as well as information on the academic programme, relevant information mentioned above was posted on the website. A full-time professor of WFU is designated as academic advisor to each student to provide intensive support for the students' research and academics. Also, guidance is provided on how to use the library and academic materials so the students can obtain necessary information for free.

Additionally, students periodically evaluate courses through the PKNU Portal System. The evaluation is carried out anonymously during and after each semester on each course and the results of the evaluation is delivered to the instructor for course improvement.

2. *(Recommendation) Course evaluation and student satisfaction questionnaires should be revised and further developed to provide more meaningful information about major course- and study-related issues (learning objectives, contents, exams, and student services, professional and pedagogical competencies of lecturers etc.).*

RESPONSE

Currently, an evaluation survey towards students is carried out for course improvement, etc. To enhance the quality of the evaluation, a TF will be organized to refine the evaluation items. Instructors, staff, students, FAO, relevant institution representatives will be included in the TF enabling a multilateral evaluation reflecting views of various stakeholders.

Additional Request

1. *(Request for additional information) Explanation of apparent inconsistency between 12 credits threshold and curriculum schedule of majors in the first semester and, in addition, clarification of the reasons behind the 12-credit limit per semester.*

5 **RESPONSE**

As explained above, the 12-credit limit is due to the Higher Education Act Enforcement Ordinance and Article 54 of the PKNU Statute.

10 The 1st semester curriculum is comprised of 1 compulsory course, 2 elective courses, and 3 common courses. Considering the diverse cultural and academic background of students, WFU increases the portion of common courses in the 1st semester and students are able to obtain basic fisheries knowledge in the 1st semester.

15 Common courses are not compulsory, and to broaden students' options in accordance with their major and interests, several compulsory, elective and common courses are offered to choose within 12 credits. Thus far, most students selected 1 compulsory course, 1 or 2 elective course(s) and 1 or 2 common course(s) according to their interest.

Therefore, the 12-credit system does not impose any restrictions to students from taking elective courses but rather ensures the autonomous study rights of students.

G Final assessment and recommendations of the expert panel (02.05.2021)

G-1 Overall assessment

5 The peers thank the MOF/WFU programme management for their thorough reading and commenting of the evaluation report. They consider these comments for their final assessment of the FAO WFU Pilot Programme in Fisheries Science.

10 In the following paragraphs, they will be reviewing their preliminary assessment thereby taking into account the comments and indications of the MOF/WFU management. The assessment will be concluded with their recommendations regarding the further development of the Pilot Programme in case of the establishment of a regular successor programme under the auspices of the FAO.

In their evaluation, the experts directly refer to the MOF/WFU management's statement.

Study objectives and learning outcomes (D-1)

15 The MOF/WFU management apparently misses the point when citing the UN SDGs ending hunger, achieve food security and improved nutrition, and promote sustainable agriculture) as major objectives of the programme stated in the MOU as well as on the WFU website. These goals and their principal importance for the initiative to develop and ultimately establish the FAO WFU Pilot Programme forms a basic assumption of the peers assessment (see sec. B-2). The experts do not doubt that the programme contributes to these (general) goals significantly. Assuming that these SDGs as a prerequisite for the engagement of FAO are adequately addressed, the subsequent question would then be how these goals are actually achieved. Translated in terms of learning objectives: What skills will the students take home to achieve the SDGs? Will they be trained in stock assessment of artisanal fisheries, working with poor data fisheries management, conflict mitigation among stakeholders, etc. that enable them to reach the SDGs? Which overall learning objectives are students supposed to achieve – independent of their respective major?

20

25

30 No such programme-related learning objectives have been defined or could be found so far, although they shall be constitutive for the programme and its special character. The mentioned learning objectives for the different majors may be taken as a point of departure. Subsequently, common qualifications of all graduates of this Master's programme

should be described consistently and in an outcome-oriented manner. In fact, these learning objectives at the programme's level are defining the programme and in combination with concrete (potential) fields of activities in the fishery's industry, management or administration could be used as an instrument of external communication and recruitment of both lecturers and students. The experts therefore uphold the formulated recommendation to this end (see below recommendation 1).

Practical educational units / unit components [D-3]

The experts again stress the value of the theoretical units (whether common, compulsory or elective) in the Master's programme for the development of a significant set of skills and competences. Yet at the same time, they reiterate the need to sustainably strengthen the applicability of this knowledge in their future professional life through meaningfully enhancing practice-oriented teaching and learning in labs, projects, case studies etc. The means for this have to be tailored to the demands of the respective major, but the necessity seems irrefutable in all three majors. The MOF/WFU management's repeated indication of planned field trips that have fallen victim to the Covid-19 crisis cannot compensate for this and it is promising that the management envisages its willingness to consider implementing additional practical units into the curriculum in case of a continuation of the programme. As a reminder, the expert team maintains a corresponding recommendation (see below recommendation 6).

Individual study plan / electives / 12 (Korean) credits rule [D-3, D-6]

The peers learn from the MOF/WFU statement that the 12-credit ceiling for students of the Pilot Programme is founded on national legislation (Art. 53 No 9 of the Higher Education Act Enforcement Decree).¹⁴ According to this legislation, the respective provision applies specifically for part-time enrollees, which is not visible from the respective Art. 19 No 2 GSR. Underlying the experts' preliminary assessment was therefore the assumption that the students of the Pilot Programme are full-time students with a comparatively low workload per semester. While restricting the maximum credit load for part-time enrollees is reasonable with a view to the students' ability to achieve the projected learning outcomes, it is not hardly understandable why the students of this Pilot Programme are enrolled on a part-time assumption. "To ensure the students self-learning time outside class hours" – as the MOF/WFU report states – therefore sounds not fully convincing to the experts. This adds up to the experts' opinion that the programme management should re-think the ad-

¹⁴ Available on the internet at: https://elaw.klri.re.kr/eng_service/lawTwoView.do?hseq=42696 (Download: 21.04.2021).

equacy of this ruling for the Pilot Programme. Precautions to avoid overburdening the students might nevertheless be taken. It is promising in that respect that the MOF/WFU considers reviewing the 12-credit limit and thus the students' options to take courses above that threshold in a semester once the Programme is permanently established. Still, they
5 choose to remind the MOF/WFU of the issue in a respective recommendation (see below recommendation 3).

However, the indication of MOF/WFU that the so-called common courses – as opposed to the compulsory and elective courses respectively – are *not* compulsory for students of all majors is of significant interest with respect to the curriculum of the Pilot Programme. This
10 information is new and cannot be found in study-related documents nor in the applicable study regulations – at least in those, which have come to the expert team's knowledge. It changes the expert team's picture of the curriculum and the study plans of the different majors. Obviously, the term "common" does in the first instance denote unit offerings for all majors and not convey any assertion towards the mandatory or optional status of this
15 offer. Consequently, "common" courses could be seen as "common electives" in the very same way as "compulsory" courses in one major are presented as "electives" in the two others. To justify the comparatively high density of such "common" courses in the first semester of the Pilot Programme (altogether three courses: Aquaculture systems and management, Fisheries Stock Assessment, and Fisheries economics and trade) the MOF/WFU
20 programme management points to the potential levelling out of different cultural and educational backgrounds of the students through these courses. This approach is reasonable on the one hand, but otherwise diversifies the acquired qualifications of students, if only moderately due to the overall limited number of courses in the curriculum. Yet this number may change in the future and with it the variety of qualification profiles of students. As the
25 "common" courses thus no longer could be seen as the common denominator of all majors, it seems to be even more necessary to define the common competence and skills set of students of the different majors and to safeguard these common learning objectives through an appropriate curriculum structure. The experts see value in adapting the respective recommendation accordingly (see below recommendation 1). This is all the more im-
30 portant as the three majors in the first place are integral parts of an interdisciplinary Master's programme in the area of fisheries science, but not stand-alone educational trajectories in this subject field.

Likewise, the expert team welcomes the declaration of MOF/WFU to revise the course syllabus according to the indications in the report in case of a continuation of the Pilot Pro-
35 gramme (see sec. D-3 for details). The respective recommendation is upheld (see below

recommendation 5). In this respect, the expert team positively notes the public availability of the syllabus.¹⁵

Entry requirements / prerequisite knowledge and skills [D-4]

5 In its preliminary assessment, the expert panel already acknowledged the achievements of the programme management under the given limitations in time, human and material resources and, additionally, the restrictions necessitated by the Covid-19 pandemic. Before this background, the experts highly valued the offering of non-credit courses in aquaculture and resource management ranging from basic to more advanced courses as an instrument to supporting students and minimizing knowledge and skills gaps. However, in case of a
10 continuation of the Pilot Programme, they still strongly suggest a more structured approach to harmonizing the level of entrance qualifications of the applicants. A study programme in fisheries science with a broad specter of majors primarily addressing applicants from diverse countries in the global south makes this a high priority postulate in the eyes of the experts. Hence, the expert team explicitly recommends accordingly (see below recommen-
15 dation 10).

Regarding the varying level of English proficiency of the applicants, the expert team would appreciate any effort to support students with language course offerings or open up such language courses provided by the host university.

Acceptance of a limited number of Korean students [D-4]

20 The experts fully understand that it is a matter of logic and the strategic cooperation with FAO that the Pilot Programme in the first instance is directed towards developing countries with a fisheries sector in need of specialized professionals capable of initiating and piloting further development. And yet, they welcome that the MOF/WFU programme management apparently embrace their argument for opening up a potential successor programme to a
25 limited number of national (Korean) students in order to strengthen the North-South cooperation in fisheries management. This should be in the interest of FAO as well and could even be fostered through an alumni-network (see below recommendation 11).

Alleviation of application process [D-4]

30 Again, the experts express their esteem of the efforts of the MOF, the Foreign Ministry of the Republic of Korea and involved stakeholders of PKNU and WFU to support international applicants to the Pilot Programme before and during the admission process. They are con-

¹⁵ Accessible on the internet: <http://wfu.pknu.ac.kr/html/sub02/sub0203.php> (Download: 21.04.2021)

vinced that the above-named institutions made every effort to minimize potential difficulties related to that process. Particularly, they consent to the idea brought forward by the MOF/WFU management to strengthen promotional activities to assist applicants during and especially before the (formal) admission period in order to ensure a smooth enrolment procedure. The expert team adapts the correspondent recommendation accordingly (see below recommendation 12).

Workload and credit point system [D-6]

The expert team understands – and in its tentative assessment already took into account – that the Korean credit point system relates to the lecture hours of the teaching staff in the first place, but also attributes a certain (variable) amount of student workload to credit numbers. It is noted from the MOF/WFU comments that the compulsory Thesis Research course is awarded 1 Korean credit comprising the teaching load attached to the Graduate qualifying examination and the Thesis defense. The MOF/WFU management apparently assume that the experts perceived or described this falsely in the report. However, the expert team did not question the 1-credit point of the Thesis Research course.

Instead, the experts pointed out that in Korean credit point system and hence the conversion into ECTS, the Master's Thesis itself as done mostly by the students on their own is not reflected at all. Firstly, it is difficult to understand why, even if solely judged from the workload of lecturers (time for teaching, guidance and supervision), obviously no working hours of lecturers/professors are reserved for the presumptive supervision of the Master's theses. This might have been either included in the credits award for the Thesis Research course or casted separately. Secondly, and even more important, the expert team misses any reliable information about the level and size of the thesis, which, in turn, threatens the comparability of students' theses even in the same major and puts into question whether the thesis is doable within a pre-set time-frame. Therefore, the expert team considers a reflection of the students' workload in all mandatory parts of the curriculum, of which the thesis is a core component, important. And that is why they concluded the issue with a recommendation. Since the national (Korean) credit point system in its current state can only inappropriately reflect the point, it should be ensured through adequate means that a thesis of comparable size at Master's level could be completed by the students within the planned time frame. The peers adapt the previously formulated recommendations accordingly (see below recommendation 4).

Regarding the above issue as well as the workload monitoring system in general, the expert team appreciates the indication to consider a conclusive integration of the student workload into the credit point system. The reported review of student workload on a monthly

and individual basis through academic advisors appears to be too unreliable and unstructured to generate meaningful information about the average student workload of a cohort and in a specific course. It could hardly be seen how adaptations of content or distribution and allocation of credits should be executed on such poor information basis. The expert team therefore confirms its recommendation to this end (see below recommendation 13).

Resources, infrastructure and cooperation [D-8]

The expert team learn from the MOF/WFU statement that the Pilot Programme has already engaged in multiple cooperation with Korean academic and research institutions as well as civil organizations in the fisheries sector to enhance the quality of teaching and learning. Of course, it is not in the liability of the FAO WFU Graduate School that e.g. many of the planned field trips or other activities planned with cooperation partners had to be cancelled due to the Covid-19 pandemic. In addition, the peers welcome that contacts have been established with a marine science network abroad (CONISMA, Italy) in order to promote the exchange of students and lecturers. Widening this network particularly to institutions and organizations in the target developing countries would definitely increase the impact of the programme and its graduates. The experts therefore uphold a slightly adapted recommendation on the matter (see below recommendation 9).

In no way do the experts mean to question or ridicule the enormous efforts and investments the Republic of Korea has placed in the FAO WFU Pilot project. On the contrary, as the evaluation report repeatedly evidences. Nevertheless, in the audit discussions with the students the experts gained the impression that certain additional costs coming up during the studies are apparently not yet covered by the alimentation of the Republic of Korea. This might be prompted by a wrong perception from the experts, but probably also from the students, and should be explained to them already in the beginning.

Institutional framework of the Pilot Programme / Cooperation with FAO / WFU branding [D-8]

The experts appreciate the clarifying information to the institutional setting of the FAO WFU and the Pilot Programme. Regarding this, the extra-ordinary de facto and de jure status of the WFU Graduate School and its Pilot Programme are well noted. And yet, with the description now provided by the MOF/WFU programme management, the expert team does not find much reason to change its view. Whatever the correct legal characterization of the FAO WFU Graduate School, it is obviously anchored within the PKNU, its rules – however specific – being supplemented by and embedded in the regulatory framework of PKNU and – most important – PKNU being the actual degree awarding institution. In that sense, the experts still see value in their initial statement, that the “umbrella name ‘World Fisher-

ies University' does not have any more or other institutional or legal substance than provided by the host university (PKNU), which is the sole authorized degree-awarding institution in this multi-stakeholder cooperation". Aspiring to develop "in the future [...] an education institution under FAO" might be reasonable or not, yet does not alter the status quo, which is simply misleadingly and incorrectly named by the term "World Fisheries University".

As regards this institutional framework, the major suggestion of the expert team has been and still is to make the best institutional use of the considerable potential of a cooperation with a host university like the PKNU. PKNU gives home to the most advanced teaching and research capacities of the country in the fisheries science area. To collaborate as close as possible in research, but also in teaching – using labs, courses of related degree programmes, professors as permanent or visiting lecturers – and networking could advance the overall quality of any successor programme significantly. Throughout the audit and within the written statements of the MOF/WFU programme management, the experts gained the impression that the major stakeholders of the Pilot Programme on the Korean side are reluctant to side with this manifest suggestion. In their perception, the overall legal and/or de facto role of PKNU is sidelined, direct inter-institutional exchange of the lecturers strictly limited, the integration of regular courses of PKNU as electives foreclosed, and, likewise, PKNU laboratories employed more accidentally than in a structured manner. This observation may be mistaken, but if adequately described is considered inexpedient and even detrimental to the actual degree programme as to any successor programme.

Looking at the MOU and the very clear stance the FAO takes in view of the liability, rights and obligations in co-piloting a Higher Education degree programme, it appears questionable – to say the least – whether "an education institution under FAO" might be feasible in the middle and even in the long run. The manifold conflicts of interest, disputes about funding issues, not to speak about the often-intriguing complexity of related legal issues leave the establishment of a new higher education institution an often-longtime experience even on the national stage. Successfully implementing a higher education institution on an international level with the involvement of an international organization like FAO will hardly be an easier exercise. The expert team therefore strongly suggests to instead exploiting the obvious institutional benefits of an established and acknowledged university through investing in the development of close bonds on all levels – with the engagement and approval of FAO. Whether under this institutional roof a Graduate School or a semi-autonomous institutional unit of some other kind operates the degree programme/s is a question of minor weight.

Since these are largely questions of educational politics and inter-institutional negotiating, the experts deem it adequate to refrain from formally recommending on that matter. However, the stakeholders should be reminded explicitly of the strength, quality and perspectives of a potential successor programme operated within and supported by an acknowledged higher education institution in the fisheries science areas. As already indicated in other sections of this report, the overall quality development of a degree programme could heavily capitalize on such an institutional arrangement in terms of curriculum, resources, and student support.

Quality Assurance Management [D-9]

The experts have taken note of the utilization of experiences and feedback from the first Pilot Programme for the design and conduct of its follower programme under consideration. They also see that some kind of regular course evaluation is carried out periodically. Obviously, however, there is no immediate feedback to the students about the analysis, evaluation and follow-up of these results. From the experts' experience, this per se would strengthen the participation of students in the further improvement of the degree programme. A corresponding recommendation is therefore kept up (see below recommendation 14).

Regarding the quality of surveys and questionnaires used in the quality assurance framework of the Pilot Programme, the experts appreciate that a task force shall be organized in order to revise and refine these instruments. Notwithstanding, the expert team decides to confirm the related recommendation thus highlighting the pervasive importance of quality assurance for the continuous improvement of degree programmes (see below recommendation 15).

G-2 Concluding remarks and recommendations

In general, the experts are convinced of the potential and value of this Master's programme and its quality level. From the documentation about the Pilot Programme, the information available on the programme's website as well as from the comments and written statements of the programme management, FAO representatives, lecturers and students, the experts gain the impression that *the FAO WFU Pilot Programme contributes to the UN SDGs concerning the fight against hunger, mal nutrition and poverty in developing countries.*¹⁶ Moreover, the expert team after assessing the Pilot Programme against internationally

¹⁶ As to the goals of this evaluation see above sec. B-2.

acknowledged standards for quality assurance of degree programmes at HE level share the opinion, that *this Master's programme overall meets the expectations at Master's level*. After completing their studies, students from developing countries with relevant fisheries sectors are prepared to take over professional roles at the intersection of the production, management and science of the fisheries.

The experts therefore *consider the Pilot Programme and the engagement of both FAO and the Republic of South Korea an overall successful project that they would strongly plead perpetuating in whatever institutional configuration*.

Despite their overall positive impression, the expert team identified several areas of concern and potential improvement, which might be grouped under four categories a) Quality aims and learning process, b) Practical and application-oriented competences, c) Admission and enrolment issues and d) Quality assurance.

a) Quality aims and structure of programme

The experts would appreciate to see in a more distinguished manner, which discipline-oriented qualifications students of all three majors have in common, apart from the major-related qualifications. In addition, this qualification profile should be exemplified through concrete occupational/job profiles. The name of the programme – whether carrying the acronym of the FAO or not – should in the first instance clearly address the discipline aimed at and resonate with the intended learning objectives and the contents of the curriculum. Individual study plans could be more flexible, particularly in the electives area, and in this regard should not be bound too strictly by credit ceilings. The mandatory thesis work should adequately reflect the Master's level in scope and size and be feasible within the limited time set for it.

Recommendations

- 1 *It is recommended to specify the overall programme learning outcomes – apart from and in combination with the learning objectives of the individual majors – in order to clearly differentiate shared qualifications from those individually reflected in the different majors. Targeted fields of professional activities of each major study track should be outlined there. The structure of the curriculum, especially with regard to the optional notion of the “common courses” should be reconsidered in this respect. [D-1, D-6]*
- 2 *The title of the study programme should resonate with its learning objectives and curricular contents. [D-2]*

3 *It is recommended enabling students to take courses of other majors or other degree programmes at the host university above the maximum 12 credits per semester. [D-3]*

5 4 *It is recommended to ensure through appropriate means that the Master's Thesis is of adequate and comparable size and can be completed within the planned time frame. [D-6 and D-7]*

5 5 *It is recommended to revise the Course Syllabus according to the indications in this report. [D-3]*

b) Practical and application-oriented competences

10 The experts conclude that the acquired theoretical knowledge should be translated more adequately into practical competences applied in real-world assignments. From their perspective, this should be reflected also in a more application-oriented design of the Master's Theses. At Master's level, the programme at the same time will have to keep track to new scientific and technological developments in the Fisheries arena. (Applied) Research co-operations with departments and faculties of the host university, other universities as well as research institutions at home and abroad will significantly support any effort in this direction. This could open up significant opportunities to link students to ongoing research projects for the Master's Theses, which, in turn, would provide them practical (research) experience and could cover related material costs. Including the targeted developing countries and/or home countries of the students into the governance partnership networking activities of a successor programme would probably contribute to the above purposes as well.

Recommendations

25 6 *It is recommended to enhance the practical, application-oriented parts of the curriculum (through labs, field trips, projects, case studies or else) in order to ensure that the theoretical knowledge adequately translates into practical competencies in the respective field. [D-3]*

30 7 *It is recommended to include a field trip for the purpose of data collection in the home-countries of the students into the Master's thesis research work. This will serve the application-orientation and the respective regional focus of the degree programme. [D-7]*

8 *It is recommended to link students wherever possible to ongoing research projects for their Master's Theses, which would provide them practical (research) experience and could cover related material costs. [Supplemented]*

9 *It is recommended to include into the governance partnership networking activities also and particularly the target developing countries / home countries of students in order to raise the potential impact of the programme and its graduates. [D-8]*

c) *Admission and enrolment issues*

5 When it comes to admission and enrolment of students to the Pilot Programme, the experts intensively discussed ways and means to enable students with different educational and cultural backgrounds to enter and successfully complete the programme. Strengthening and to a certain degree levelling out the students' entrance qualification is one field of concern here; enforcing the learning process through encouraging intercultural understanding and exchange another. Additionally, the expert team explicitly welcomes all efforts to support students before and during the complicated admission process.

Recommendations

10 *10 It is recommended to provide students with adequate offers for closing knowledge and skills gaps before commencing their studies in order to enlarge their ability to achieve the intended learning objectives at Master's level. [D-4]*

11 *11 It is recommended to open the programme for a limited number of Korean students in order to foster the intercultural understanding and exchange amongst the students and stimulate further interlinkages through an alumni-network. [D-4]*

20 *12 It is recommended to intensify the assistance of students in the admission process through appropriate measures – such as those indicated in the statement of the FAO WFU programme management. [D-4]*

d) *Quality assurance*

25 The internal QA of the Pilot Programme reveals deficits that in the eyes of the peers can be easily addressed. Putting in place an adequate monitoring system concerning student workload, closing feedback cycles as well as invigorating the students' participation in the QA are solvable problems.

30 Of far more importance with respect to QA is the multi-level QA system that has been established for the Pilot Programme and the challenges it poses to the functioning of communication channels between the levels and institutions. The experts choose to not explicitly address this issue – which has been thoroughly deliberated in sections D-8 and D-9 of this report – in their list of recommendable actions. However, they strongly admonish the stakeholders of any successor programme to carefully re-think the distribution of responsibilities and competences in the QA.

Recommendations

- 13 *It is recommended to put in place a viable monitoring scheme for student workload in order to allow for timely adjustments in case of significant discrepancies between credit allocation and workload calculation. [D-6]*
- 5 14 *It is recommended to generally strengthen the student's participation in the quality assurance processes of the programme, and in particular to ensure feedback to them about the results and measures taken in the follow-up process. [D-9]*
- 10 15 *Course evaluation and student satisfaction questionnaires should be revised and further developed to provide more meaningful information about major course- and study-related issues (learning objectives, contents, exams, and student services, professional and pedagogical competencies of lecturers etc.). [D-9]*