RESEARCH STRATEGY FINAL REPORT

Research Committee

October 2019

Mr. Francisco Torres, coordinator, University of Vigo

Ms. Iria García Lorenzo, coordinator, University of Vigo

Mr. Dewan Ahsan, Southern Denmark University

Mr. Thomas Vallée, University of Nantes

Mr. Lionel Lemiale, University of Nantes

Mr. Murat Yildizoglu, University of Bordeaux

Mr. Sovanna Seav, University of Battambang

Mr. Ratha Seng, University of Battambang

Mr. Laurent Mesmann, Royal University of Law and Economics

Mr. Kang Sovannara, National University of Management

Ms. Neang Malyne, Royal University of Agriculture

Co-funded by the Erasmus+ Programme of the European Union

Contents

1. Introduction 2

2. First phase of the Research Strategy: Research Questionnaires 4

2.1. Results of the Research Questionnaires 5

3. Second phase of the Research Strategy: Research Groups 9

Research Group #1 10

Research Group #2 11

Research Group #3 12

Research Group #4 13

Research Group #5 13

3.1. First meetings of the Research Groups 14

4. Third Phase of the Research Strategy: Preliminary Versions 18

Research Group #1: Equitable, reasonable and sustainable use of water resources in Cambodia 20

Research Group #2: Valuation of ecosystem services of mangrove forests in Cambodia 23

Research Group #3: Environmental Security and Climate Change, and New Research Groups #3.1, #3.2. 26

5. Fourth phase: Final Results 32

6. Conclusions: the Research Strategy as a collaborative reseach tool 33

Annex I. The Research Questionnaire organization and responses 35

Annex II. Program of the DOCKSIDE Summer School in 2018 56

Annex III. Program of the Plenary Sessions at the ASEAN Water Platform 2019 58

Annex IV. Program of the Dissemination Conference 60

This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Co-funded by the Erasmus+ Programme of the European Union

1. Introduction

In the South-East Asia countries, the higher education systems stem from different historical backgrounds, usually very much influenced by this colonial heritage, and have undergone different challenges and stages of development. Among the less-developed countries, higher education systems are chronically under-funded and face escalating demand, under-qualified academic staff and poorly planned curricula, thus poorly taught students. In this context, the role of the research has been highlighted as an important contributor to the nation's economic development, with a specific focus on university-based research in low and middle-income countries. The most important role of universities in the learning systems of low and middle-income countries is to raise the skills of the population and to help absorb ideas from developed countries (UNESCO, 2014).

Considering this international environment, one of the main objectives of the DOCKSIDE Project is to improve the Cambodian research activities in Environmental and Maritime fields. As the relations among DOCKSIDE partners has been already developed in previous phases of the project, these bases are used for the implementation of a research strategy. To achieve it, the DOCKSIDE decided to create a **Research Committee** who oversees the development of the research activities of the Project. Staff members of the partners' universities form this Committee:

University of Vigo
Mr. Francisco Torres and Ms. Iria García Lorenzo,
Report Coordinators

University of Nantes
Mr. Thomas Vallée and
Mr. Lionel Lemiale

Southern Denmark University
Mr. Dewan Ahsan

University of Battambang
Mr. Sovanna Seav and Mr. Ratha Seng

National University of Management
Mr. Kang Sovannara

Royal University of Agriculture
Ms. Neang Malyne

Royal University of Law and Economics
Mr. Laurent Mesmann

University of Bordeaux
Mr. Murat Yildizoglu (invited adviser)

Co-funded by the Erasmus+ Programme of the European Union

This report presents the **DOCKSIDE Research Strategy** for the second half of the project, from July 2018 to October 2019. The strategy is organized into phases to adjust it to the needs detected in its development and the first phase lasted from July to October 2018. In this way, we could have about four phases until the end of the project, each with an approximate duration of four months.

The research strategy proposed arises from the knowledge acquired during the first middle of the DOCKSIDE project. The different reports, those from the Stakeholders Analysis, EMR Workshop, Internships Mobility and Catalogue Courses among others, and the personal experiences in the project activities could give us information to develop the strategy. For example, in the Catalogue Courses Report made in June 2018, some strengths and weakness of the Cambodian partners' research activities were presented. We can see that NUM, RUA, RULE and UBB have an international experience, their staff have a great attitude to face the collaboration and all of them have research centers, more or less developed. The mainly weaknesses of the partners were: the lack of motivation to make an academic career in universities caused by the inexistence of clear regulation in Cambodia; the not real application of certain EU Universities methods and measures in Cambodian universities; and the weak or not well oriented incentives to develop research projects. The idea was to include this knowledge in the strategy, so the Research Committee could highlight any information related to the research during the process.

Finally, due to the evolution of the strategy itself, the phases of the DOCKSIDE Research Strategy are:

- **First phase: Research Questionnaire.** From 1 July 2018 to the DOCKSIDE Summer School, 1-5 October 2018
- **Second phase: Research Groups**. From 8 October 2018 to 8 March 2019
- **Third phase: Preliminary Versions.** From 13 March to 29 July 2019, two weeks after the ASEAN Water Platform 2019
- **Fourth phase: Final Results.** From 1 August 2019 to one week before the end of the DOCKSIDE project, 7 October 2019

Co-funded by the Erasmus+ Programme of the European Union

2. First phase of the Research Strategy: Research Questionnaires

The Research Strategy aims to establish real research collaboration among the DOCKSIDE partners that may remain in the future. In this sense, the first action is to get the relevant information from the partners in relation to their research topics and their research organization. In order to collect this information, during the month of July 2018 the project created a **Research Questionnaire (RQ)** through the contributions of the Research Committee members. In August, this RQ was provided to the partners and they answered at the department, research center or institution level depends on the characteristics of each partner. The questionnaire has two sections:

- **Section I: Research Topics.** To collect the research topics of each institution, we will distinguish five circles of action. We differentiate the topics among those are active in each institution, those that would need more actions and new initiatives and the topics from other partners´ institutions in which the partners could be interested. In order to make easier the analysis, we divide the topics into "Domains" (Economics, Law, Sciences, etc.) and "General Topics" (Agriculture, Climate Change, Energy, Fisheries, Human Rights, etc.).
- **Section II: Research Organization.** During the DOCKSIDE project, we have seen that there is a great attitude to collaborate between the partners nevertheless, the research collaborations have not been performed. We want to take advantage of this information gathering to have the partners perception of why is difficult to carry out the collaboration and how can we organise it to make sure it will be done. This section is a collection of questions related to the organization of the research, where the Research Committee members have highlight any topic, problem or question that they want to include in the questionnaire.

To further information:
Annex I. The Research Questionnaire

With the partners information collected, the Research Committee will manage the training session towards research purposes in the UBB Summer School, in October 2018. Thereafter, the next phase of the Research Strategy will be established.

Research Strategy Schedule for the First Phase	July/August	Preparation of the first phase of the Research Strategy and preparation of the RQ
	August	Provide the RQ to the partners **before 03/08/2018**
	September	Collect the RQs of the partners **before 07/09/2018**, analyze their information and prepare the training session for the UBB Summer School **before 21/09/2018**
	October	Present the results in the training session for the UBB Summer School (**01-05/10/2018**) and establish the second phase of the Research Strategy

Co-funded by the Erasmus+ Programme of the European Union

2.1. Results of the Research Questionnaires

The different universities had selected which department, research center or institution answered the questionnaires, and the entities chose were:

- **UNANTES:** Research unit in Economic and Management (LEMNA), around 90 researchers.
- **SDU:** The Management and Economics of Resources and Environment Research Group (MERE), from the Department of Sociology, Environment and Business Economics (SEBE).
- **RULE**: Scientific Committee, around 12 researchers.
- **RUA**: Ecosystem Services and Land Uses Research Centre (ECOLAND), around 11 researchers.
- **UBB**: Scientific Committee.
- **NUM**: School of Graduate Studies and Research Center.
- **UVIGO**: Research Group DMT (Commercial and Labour Law), around 10 researchers, and Natural Resource and Environmental Economics Group (ERENEA), around 15 researchers.

The UVigo, as coordinator of the Research Strategy, have analyzed the data provided in order to make a **proposal of how to begin the research activities in the DOCKSIDE**. The Research Committee discussed this proposal in the Summer School of Battambang, to improve it. All the ideas, the groups made, the organization structure and the abstract proposed were an idea to start the debate.

INITIAL PROPOSAL FOR THE BATTAMBANG´S SUMMER SCHOOL

The analysis of the Research Topics shows which areas have in common the different partners and in which they are more interested. If we identify the interrelations, we could select the best topics to collaborate. The main common topics for the DOCKSIDE partners are:

- **Sustainable Natural Resources Management,** studies of Finance, Economics, Management, Logistic, Statistics, Research Methods and Natural Sciences.
- **Fisheries**, studies of Applied Sciences, Management, Logistic, Statistics and Research Methods.
- **Climate Change**, studies of Law, Finance, Economics, Management, Logistic, Statistics, Research Methods and Natural Sciences.
- **International relations, regulations and human policies**, studies of Management, Logistic and Law.
- **Water management,** studies of Management, Logistic, Law, Natural Sciences and Others.
- **Agricultural and Rural Development,** studies of Finance, Economics, Applied Sciences and Natural Sciences.

In order to know how to create to relations among the members based on these topics, we look at one question of the Research Organization **what could be the best way to organize a joint research among the**

partners? As the most of the partners chose *the direct collaboration between one (or few) researcher/professor from different university (Cambodian or European) or the direct collaboration among one Cambodian research center with one European department* we think that DOCKSIDE must create small groups to collaborate. In this sense, we propose to organize the topics in groups with only 3 partners working on it, at least for the second phase and to begin with the research.

The groups and topics were organized according to the "matches" detected in the Research Topics Questionnaires. All the groups have one or two European partners and all the DOCKSIDE partners are into two groups (except Nantes that it is in three because we need to balance the groups and they have the higher number of researchers). We will call **them Research Groups (RG)** and they could be:

- **RG 1: International Relations, regulations and policies: Law**. RULE, UNantes and UVigo Law
- **RG 2: Sustainable Natural Resources Management and Fisheries** I (For example about Risk management of small-scale fisheries and farms, Rivers and Lakes). UBB, UNantes and SDU
- **RG 3: Sustainable Natural Resources Management and Fisheries II (**For example about Governance, community fisheries, Marine and Coastal Areas). UBB, RUA and UVigo Economics
- **RG 4: Water Management** (It could be a good option, as all the partners work on it, but it can be other topic related with NUM topics). NUM, RULE and UNantes

  RG 5: Agricultural and Rural Development (In the Catalogue Courses Report we see that, at the PhD level, the RUA has an English course in "Applied Statistics for Agriculture research" and the NUM has also English courses in "Advanced statistics and Qualitative and Quantitative Research Methods"). RUA, NUM and SDU.

The objective of these groups will be to have a small **Abstract** for the 31 January 2019 about a specific study that can be done in Cambodia, related with the group´s topic. Here we propose some topics, but the partner can choose a most appropriate one. The idea it is just to write 2 or 3 pages as a joint work, specifying the methodology and theoretical basis, the Cambodian problem that face off and the possible case study to be done (if any). We want to promote the collaborations, so we think that in this phase we have to put a goal easy to achieve, which will not take too many time.

In relation with the information collected by the questions **how many joint researches have been done and what level reached the best joint research?; what contribution to the joint research do you expect from the European/Cambodian partners?** and **if you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch?;** we propose a structure for the collaboration:

- For the research activities, the CG partners should keep in touch between once each two weeks and once a month. This will be around 4 and 7 times in the period, to choose by the CG. However, there

were institutions that believe it is better to meet more often and in accordance with the project schedule.

- It is necessary to build the participative research project together between the Cambodian and European partners. May be we should organize a one week proposal writing to make sure that all partners know and understand very well about what the project is about.
- The European partners are expected to: 1) provide the theoretical and methodological framework to carry out the research, which are the main literature at the scientific level; 2) provide examples of case study in its own country or around the world; 3) with the regional information and data provided by the Cambodians partners, analyze which could be a good study to carry out; 4) collaborate in the writing of the abstract.
- The Cambodian partners are expected to: 1) analyze the information provided by the European partners (papers, reports…); 2) related to this information and the partner´s regional knowledge, find a Cambodian problem that has to be study; 3) try to find what kind of data exists about this problem (National regulations and statistics, Cambodian publications, if there is any organization or people working on this problem...); 4) collaborate in the writing of the abstract.

In relations with the **principal problems that the DOCKSIDE partners have to carry out joint research**, we have detected three main problems. During the collaboration, it is very possible the partners will have to face with these issues:

- The breach of the schedule and difficulty to comply with deadlines for the intermediary works. This is one of the most difficult problem to avoid. Maybe we can designated one group leader that could be the responsible to keep in touch the partners and to record when the meetings were.
- The different methodology, measures and research topics among the partners. In this phase we want to look for the best topics and case studies to collaborate, it is necessary to take time to look for it.
- Cambodian and European cultural factors. Cambodian people ask many questions, but it is difficult to guess if they understand or not. If they do not understand, they will not ask the concerning person but they wait to ask someone else whom they feel good with. In addition, when they are not happy with the project or think it is difficult to do something, they will say yes but they will not do it or say it. In the other side, western People are too direct, so sometimes Cambodian get upset and they are not happy to do their jobs. Western work fast and sometime do all the jobs without knowledge transfer.
- The lack of incentives and difficulty to find in the Cambodian universities teachers who have the necessary skills. As we will make small groups, we are expecting to have a higher commitment of the researchers and teachers. The ideas that the partners proposed to avoid the problem were:

- *By gradually doing collective work with, progressively, trying to reach research on an equal basis. Starting by supervision by European Researcher to joint article*.
- *Finding out couple of key people who are really interested in joint research, Increase communication, joint application for research funding, initiation of writing research articles*.
- *Making collaboration initiatives more visible and publicizing research activities, carrying out seminaries about how to research and be more creativity and doing brainstorming among the partners.*
- *To write a collective book (or a joint academic article, such as a position paper) on a common field (e.g. management of the Tonle Sap resources) involving most of the partners of the project. To make a proposal on some specific call for proposals of Cambodian, regional or international institutions.*
- *Select fulltime researchers from Cambodian partners (provide them same incentive as European researchers) to joint with EU partners.*
- *Doing Joint Masters and PhD programs with full scholarship and providing internships.*
- *The Dockside partners do not know clearly how we manage the budget and what the incentives are, in addition, and the EU administration takes too much time. In the future, we should not make all partners busy when we implement one partner's WP because everyone is busy in small things.*

Related to these ideas, there also other topic that all the DOCKSIDE´s partners work on, the Climate Change. As the UNantes proposes to make a joint collaboration among all the partners, we think that this would be the best topic for it. We can make, for example, the "**DOCKSIDE Group 6: Climate Change. All the partners."** This can be talked in the Summer School.

If we can achieve to have the Abstracts in January, in the third phase we can try to develop the cases study and have around 10 or 15 pages for each one. If there is one study much better than the others are, we can also give to it more efforts, and involve more partners. The first step of the third phase can be evaluating the abstracts by other DOCKSIDE partners, and try to improve them or help them with the problems they faced. In this sense, we will have six different studies to group in a report or a collective book.

The Abstract files that the CG have to do could include some basis information, for example: Universities and researchers involved; Record of the meetings; Topic selected; Theoretical and methodological framework; Cases studies analyzed; Existing data; and possible Cambodian case study to be done.

Co-funded by the Erasmus+ Programme of the European Union

3. Second phase of the Research Strategy: Research Groups

In the Summer School of Battambang, the Research Committee, researchers and students debated about the Research Topics and the DOCKSIDE Strategic Plan for Research. These issues where treated in a special session, organized the first day, called the Research Discussion.

To further information:
Annex II. Program of the Summer School in 2018

The first step of the discussion was the division of the participants into groups, where each group had to select a topic of interest. There was a special attention in the students´ opinion, what topics were relevant for them. At the end of the session, the participants identified four research topics and others potential topics:

- **1#: Equitable, reasonable and sustainable use of water resources in Cambodia**
- **2#: Valuation of ecosystem services of mangrove forests in Cambodia**
- **3#: Environmental Security and Climate Changes**
- **4#: Impact of Flood on Food Production in Battambang province**
- **5#: Other potential topics**: 1) Sustainability and agriculture: Soil quality; 2) Objective to increase the agricultural productions; 3) Impact of water (Parameters) of water quality impact on fishery in Tonle Sap lake.

With these research topics, **there were created five Research Groups**. The groups advanced in the definition of the keywords, goals, team leader, steps and schedule of the research proposals. Even so, some proposals were more defined than others were. With this information, the Research Committee members had to provide the name of other colleagues who can participate in the group. The initial information of the Research Groups, in November 2018, is presented here:

Co-funded by the Erasmus+ Programme of the European Union

Research Group #1	
Research Topic	Equitable, reasonable and sustainable use of water resources in Cambodia
Keywords of the Research	Dams, Fisheries, Fish Passage Policy and Transboundary Cooperation.
Goal of the research	To design a legal and policy framework for the sustainable management of water resources in Cambodia, with a special focus on the problem of dams and it relation to fisheries, and free fish passage, also in the context of transboundary cooperation.
Team Leader	Tob Chann Aun, IFReDI/MAFF. Deputy, Channaun.tob@gmail.com
Team Members	• Inland Fisheries Research and Development Institute (Cambodia) • RULE (Cambodia) • European partners: University of Vigo; SDU; Nantes: - Laura Movilla Pateiro, Universtiy of Vigo, lauramovilla@uvigo.es - Francisco Torres, University of Vigo, ftorres@uvigo.es • Identification of other experts in the other partners, or relevant Stakeholders: - Conservation International →A Nick Souter : nsouter@conservation.org (meet one time in conference) and Vittoria Eliott: velliott@conversation.org (she know very well) - World Fish Center → Olivier Joffre : o.joffre@cgiar.org (meet one time in conference) • RUA – ECOLAND: Dr. Nang Malyne (RUA), nmalyne@rua.edu.kh. If it is a research project, ECOLAND would be interested to join if in some part of the project connect to Livelihood and in 2 provinces (Kandal and Kampong Thom) because it is already their targeted area.
Steps for this research to be conducted	• Identify specialists/researchers/literature • Skype meetings • Data collection/survey • Identify relevant international journals/conferences
Tentative time frame of this research activity	• November 2018- July 2019: identification of key issues and relevant legal and policy frameworks • Presentation of this initial results in the Dockside Summer School (2019)
How could the DOCKISDE project facilitate the process?	• Identification of experts in the partner institutions • Funding for data gathering and field work

Research Group #2

Research Topic	Valuation of ecosystem services of mangrove forests in Cambodia
Keywords of the Research	Mangrove, forest economy, ecological assessment, cost-benefits analysis
Goal of the research	• Identify changes in mangrove forest extent • Conduct ecological assessment of mangrove forests • Estimate carbon storage in mangrove forests • Study the benefits of mangrove forest ecosystem services for community
Team Leader	Leader: Pok Sophak, RUA, poksophak@gmail.com Co-leader: Pierre-Alexandre Mahieu, UN, Pierre-Alexandre.Mahieu@univ-nantes.fr (https://sites.google.com/site/pamahieu/home)
Team Members	See table below
Steps for this research to be conducted:	• Meeting every 2 months • Use GIS and remote sensing to analyze changes (satellite images including Landsat and Sentinel) • Baseline survey for ecological assessment • Questionnaire survey design, interview • Field data collection
Tentative time frame of this research activity:	• November 2018- July 2019: identification of key issues and collecting data • Presentation of the initial results in the Dockside Summer School (2019)
How could the DOCKISDE project facilitate the process?	• Identification of experts in the partner institutions • Funding for data gathering and fieldwork (DSA, accommodation, transport, materials, etc.) • Involve students/staff from EU to help and exchange knowledge

NAME	INSTITUTION	Email
Pok Sophak (leader)	RUA	poksophak@gmail.com
Hok Sen Samphea	RUA	hsamphea@gmail.com
Phay Bun Theoun	Svay Rieng University	pthoeun@sru.edu.kh
Yong Saroeut	UBB	saroeutyong@yahoo.com
Mom Lita	UBB	momlita01@gmail.com
Moeuy Raksmey	UBB	moeuyraksmey@gmail.com
Supatchya Thani	Ubon Ratchathani University	supatchaya.poy@gmail.com
Bora Ratana	UBB	boraratana1@gmail.com
Reach Sokuntheary	UBB	reachsokuntheary23@gmail.com
Natkritta Wong Yai	Ubon Ratchathani University	natkrittawongyai@gmail.com
Thomas Vallée	UNantes	thomas.vallee@univ-nantes.fr
Pierre-Alexandre Mahieu (co-leader)	UNantes	pierre-alexandre.mahieu@univ-nantes.fr
Dewan Ahsan	SDU	dah@sam.sdu.dk
Bjarke Slater Christensen	SDU	bchri15@student.sdu.dk
Diego Salgueiro	UVigo	diegosalgueirootero@gmail.com
Iria García Lorenzo	UVigo	Iria.garcialorenzo@gmail.com

Co-funded by the Erasmus+ Programme of the European Union

Research Group #3	
Research Topic	Environmental Security and Climate Changes
Keywords of the Research	Ecosystem, Security, Climate change, sustainable livelihoods, Tonle Sap, Mekong
Goal of the research	General Goal: • To analyze the changes of Ecosystem and livelihoods/agriculture in Tonle Sap/Mekong Specific Goals: • Identify the changes of ES • Stakeholder's intervention responding to the changes • Factors influence the farmers' perception
Team Leader	Team Leader Phoeurk Raksmey – RUA, PhD Candidate, praksmey@rua.edu.kh This topic related with Raksmeys PhD, we will see how it will evolve with his plan for PhD. Co-leader (European one): Dr. Dewan Ahsan
Team Members	• Cambodian partners: 3 people (NUM and RUA): 1. Mr. Phoeurk Raksmey, Msc (RUA), praksmey@rua.edu.kh 2. Mr. Pok Sophak, PhD (RUA), psophak@rua.edu.kh 3. Dr. Chhay Phang (NUM), chhayphang@num.edu.kh • European partners: - Dr. Dewan Ahsan - Elena Ojea, University of Vigo elenaojea@uvigo.es - Raquel Fernández González, University of Vigo raquelf@uvigo.es • Identification of other experts in the other partners, or relevant Stakeholders • Conservation International →A Nick Souter : nsouter@conservation.org (meet one time in conference) and Vittoria Eliott: velliott@conversation.org (she know very well) • World fish center → Olivier Joffre : o.joffre@cgiar.org (meet one time in conference)
Steps for this research to be conducted	**Research questions:** 1. What are the changes of the ecosystem in the target area? How and why? 2. What are the interventions of stakeholders to respond these changes? How are they efficient? 3. How the farmers perceive the changes of ecosystem? What factors influence on their individual perception? **Methodology:** • Qualitative and Quantitative approaches • Agrarian system analysis and diagnosis • Sustainable environmental framework and sustainable livelihood framework • Arg GIS and logit model • ICT (Information communication technology)
Tentative time frame of this research activity	
How could the DOCKISDE project facilitate the process?	

Co-funded by the Erasmus+ Programme of the European Union

Research Group #4	
Research Topic	Impact of Flood on Food Production in Battambang province
Keywords of the Research	Food security, livelihood of farmers, .. TO BE COMPLETED
Goal of the research	• To determine the effect of flood on agriculture productions • To study on livelihood system of farmers in studied areas • To raise solution to secure food production for farmers in study areas
Team Leader	Leader: Dr. Mardy Serey - Svay Rieng University - sereymardy@sru.edu.kh Co-leaders (European one and DOCKSIDE Cambodian Partners): to be defined
Team Members	Researchers, lecturers, staffs and students from NUM, RULE, RUA, DSR, SRU and UHST → IF YOU KNOW WHO? Please provide names and Institution. European partners will be added
Steps for this research to be conducted	Methodology: • Online discussion, face to face meeting • Data collection: field survey Steps for this research to be conducted: TO BE DEFINED
Tentative time frame of this research activity	• ……???…. • Presentation of this initial results in the Dockside Summer School (2019)
How could the DOCKISDE project facilitate the process?	• facilitating the process • Peer review • Budget

Research Group #5	
Research Topic	OTHER POTENTIAL TOPICS OF RESEARCH: 1. Sustainability and agriculture: Soil quality 2. Objective to increase the agricultural productions 3. Impact of water (Parameters) of water quality impact on fishery in Tonle Sap lake Objective: To identify the impacts of the parameters on fishery Purpose: find the intervention measure to maximize the fishery production

3.1. First meetings of the Research Groups

At the beginning, the second phase of the strategy was planned to end the 31 January 2019, but we decide to extend the deadline to 22 February 2019 because different issues. The Christmas holidays in December, the Chinese New Year, the end of Capacity Building Call in February and the 2º Summer School planned for July 2019 made us to change the date.

The second step for this phase were the **Meetings of the Research Groups**. We had to make sure that they meet and they are organise. In this sense, we sent to each group leader, providing them the list of the members and asking him to put in touch all the members. The leader had the task to organise two online meetings, for example with Skype, to begin with the research. The first meeting had to be between 8 and 31 January and other one between 11 and 21 February. In the deadline, 22 February, the leader had to give to the Research Committee the **"Meeting minutes"** of the two meetings, according to some requirements. These requirements were:

MEETING MINUTES FOR THE RESEARCH GROUPS

Research Group
Team leader (co-leaders)
FIRST MEETING
Meeting date *(Preferably between 8 and 31 January)*
Research members that assisted the meeting
Objectives of the meeting (define the goals of the research, tasks distribution of the members, etc.)
Topics discussed/ Meeting agenda
Tasks for the 2º Meeting
Problems encountered (Technological, schedule, etc.)
Others observations
SECOND MEETING
Meeting date *(Preferably between 11 and 22 February)*
Research members that assisted the meeting
Topics discussed/ Meeting agenda
Next steps to be conducted
Task distributions among the members
Work plan for the period 22 February – 31 May (Next meetings, ect.)
Problems encountered (Technological, schedule, etc.)
Others observations

The Meeting Minutes of the Groups were collected between 22 February and 8 March. The Groups 1, 2 and 3 provided information, while the Group 4 did not make any advanced and the Group 5 was discarded because no partner decided to lead it. Only the group 2 made a second meeting. The analysis of the Meeting Minutes

shows that just three groups could achieve to present their drafts in the ASEAN Water Platform 2019. The main issues discussed in the meetings were about the data and the previous reports about the research topics: what exists on the subject and where to find them. The problems during the meetings were few, principally related to the schedule and the ability to gather all the members of the group and to the lack of resources for collecting new data. The information provided was:

Research Group #1	**Equitable, reasonable and sustainable use of water resources in Cambodia**
Team leader (co-leaders)	Dr. Chann Aun Tob (IFREDI), Dr. Laura Movilla (VIGO) and Dr. Dewan Ahsan
FIRST MEETING	
Meeting date *(Preferably between 8 and 31 January)*	21 January 2019
Research members that assisted the meeting	Dr. Chann Aun Tob ; Dr. Dewan Ahsan Dr. Patrice Guillotreau ; Dr. Thomas Vallée Dr. Laura Movilla
Objectives of the meeting (define the goals of the research, tasks distribution of the members, etc.)	Discuss the scope of the research Existence of Data and reports.
Topics discussed/ Meeting agenda	a) Scope of the research ➔ International water law: position of Cambodia (2 international conventions, Cambodian not part of it) ➔ Precise the role of the MRC (legal issues regarding barriers and damns built over the Mekong) ➔ Efficiency of fish passage in damns? Is there any legal/law issue about fish migration on the Mekong with respects to barriers and damns? b) Existence of Reports ➔ Links to relevant reports from MRC should be provided to all (www.mrcmekong.org/publications/). ➔ Site assessment: what to do with all these 5 sites? Is there any existing reports/data from them? Should we do a meta-analysis? ➔ Impact for Farmers and Fishermen (irrigation impacts) on their livelihoods. c) Needs for next steps ➔ Dr. Tob: Existing Reports are needed!! ➔ Two issues to be deepen: ○ Dr. Laura: legal/law issues about Damns and Barriers building and the fish passage efficiency ○ Dr. Dewan: Damns and Barriers issues on Irrigation impacts.
Tasks for the 2º Meeting	2nd Skype meeting in beginning of March To do in February based on existing reports and literature➔ rewrite (redefine) the research proposal
Problems encountered (Technological, schedule, etc.)	None
Others observations	

Research Group #2	**Valuation of ecosystem services of mangrove forests in Cambodia**
Team leader (co-leaders)	Sophak Pok and Pierre-Alexandre Mahieu
FIRST MEETING	
Meeting date *(Preferably between 8 and 31 January)*	12 January 2019
Research members that assisted the meeting	Lita Mom Saroeut Yong
Objectives of the meeting	- To define goals of the research - To discuss methods for valuing mangrove ecosystems services - To assign the tasks for members
Topics discussed/ Meeting agenda	- Reading papers to gain better understanding of methods for environmental valuation - Selection of methods for the valuation of mangroves (choice experiment vs contingent valuation)
Tasks for the 2º Meeting	- Complete reading the papers assigned to each member - Collect information regarding policies, issues and specific ecosystem services of mangrove forests in Cambodia
Problems encountered (Technological, schedule, etc.)	- It was a bit difficult to find a schedule that matches all of the group members due to their different work/study schedule. - Due to resource constraints, it was not possible to cover all the research goals initially set in the research proposal. Therefore, we will focus only on two goals: 1). to quantify recent changes of mangrove forest extent in Cambodia from 2007 to 2017; and 2). to estimate of the economic values of mangrove ecosystem services (using choice experiment method)
Others observations	N/A
SECOND MEETING	
Meeting date *(Preferably between 11 and 22 February)*	06 February 2019
Research members that assisted the meeting	Sophak Pok Pierre-Alexandre Mahieu
Topics discussed/ Meeting agenda	- Report the results of pervious tasks - How to conduct the survey (target population, resources, budget)
Next steps to be conducted	- Sophak Pok will work with visit Pierre-Alexandre Mahieu in the University of Nantes, France on the detailed method and designing questionnaire for survey
Task distributions among the members	N/A
Work plan for the period 22 February – 31 May (Next meetings, etc.)	- Finalize the method for valuing the mangrove forests, which is a choice experiment method. - Perform the analysis of mangrove forest changes over the period from 2007 to 2017. - The above results will be shared with members for reviews and/or comments. - A meeting will be held if necessary.
Problems encountered (Technological, schedule, etc.)	- Concerns over the lack of resources for conducting the survey. - Schedule did not fit for all and many could not attend the meeting.
Others observations	N/A

Co-funded by the Erasmus+ Programme of the European Union

Research Group #3	**Environmental Security and Climate Changes**
Team leader (co-leaders)	Dr. Nick Souter and Dr. Ratha Sor and DR. Patrice Guillotreau
FIRST MEETING	
Meeting date *(Preferably between 8 and 31 January)*	21 January 2019
Research members that assisted the meeting	Dr. Ratha Sor Dr. Dewan Ahsan Dr. Patrice Guillotreau Dr. Thomas Vallée Dr. Nick Souter
Objectives of the meeting (define the goals of the research, tasks distribution of the members, etc.)	Redefine the scope of the research Discuss Data issue Leaders: Dr. Sor (Chea Sim University) and Dr. Souter (Conservation International) Co-Leader: D. Patrice Guillotreau (University of Nantes)
Topics discussed/ Meeting agenda	a) Scope of the research Ecosystem service: Water issue should be the main focus. ➔ Impact of Damn on the water supply/resource. ➔ Impact of Climate Change (precipitations) b) Existence of Data Dr. Souter has some relevant data. Running an assessment of the Tonle Sap (to be done in the next 6 months)➔ to identify the Ecosystem services and build a freshwater health index (composite index, see www.freshwaterhealthindex.org). Socio-Economic Data by WorldFish c) Needs for next steps Discuss Monitoring and Intervention; conflicts from free access; illegal fishing; patrolling.
Tasks for the 2º Meeting	2nd Skype meeting in beginning of March Make a clear list of the existing data Identify the precise research question
Problems encountered (Technological, schedule, etc.)	None
Others observations	

Co-funded by the Erasmus+ Programme of the European Union

4. Third Phase of the Research Strategy: Preliminary Versions

With the groups more consolidated, the objective for the third phase was be to have preliminary versions of the researches. To achieve it, they had around 3 months and a half.

As we thought the groups were working on their research with their own pace, the idea was to act exclusively as a controller. We asked the Research Groups to have a **"First Preliminary Version" at the 30 May 2019**. This version was free of about 5 pages, but we provided guide for the ones they want to follow: a small introduction justifying the relevant of the research, a theoretical frame and/or methodology, the advances in the research and bibliography. We just want to make sure the groups are working and there are no communication problems, so we will ask also for the meetings dates. We advise the groups to **try to involve more members of the group in the meetings**, at least into some of them. Here is the guide form the groups had to deliver in May:

FIRST PRELIMINARY VERSION

Research Group	
Team leader (co-leaders)	
Meeting dates	
Research members that assisted the meetings	
Problems encountered (Technological, schedule, etc.)	
Introduction; Theoretical Frame / Methodology; Advances in the research; Bibliography	

Finally, there were some delay in the preliminary because the schedule coincided with the AWP 2019 organization. Some groups provided their information between the 24 May and 14 June by mail and others took it directly to the AWP 2019, in 5-13 July 2019.

Research Group 1 was the one with the most problems had because some of the partners were not involved on it. They achive to detect the best way to approach the chosen theme "Equitable, reasonable and sustainable use of water resources in Cambodia". In the AWP 2019 Laura Movilla, from UVigo, presented the possible approaches from International Environmental and Water Law: 1) Possible advantages of joining the two existing global water conventions; 2) Applicability and Implications of International Customary Law of International Watercourses; 3) Synergies between International Water Law and International Biodiversity Law; 4) Synergies between the Law of the sea and the Law of international watercourses about the plastic pollution.

Research Group 2 was the one that advanced the most, both in the approach of its investigation and in the fieldwork made. The direct collaboration between Pok Sophak and their team, from RUA, with Pierre-Alexandre Mahieu, from UN, achieve results about their topic "Valuation of ecosystem services of mangrove forests in Cambodia". While they provided some general information by mail, this group presented in the AWP 2019 their advances. They already selected the methodology, Choice Experiment for the economic valuation, and carried out 232 survey in a specific Cambodian region. They were analyzing the results; even so, they were able to present some of them. They expected to have the final research done by the end of the year 2019 and will try to publish it.

Research Group 3 of "Environmental Security and Climate Change" provided its preliminary version in june, even it was not able to present at the AWP 2019. They achieved to specify the objective and to propose the methodology. The study of this topic and the relations among the team highlighted that there are another researches the partners are carrying out that can joint to the Research Strategy. In this sense, we introduce two New Research Groups that did present in the AWP 2019:

- **New Research Group 3.1.** of "Inland commercial fishing lot and mobile gear fishing in Tonle Sap Lake: an assessment of fisheries and fish community structure" presented by Bunyeth Chan.
- **New Research Group 3.2.** of "Evaluating the success and sustainability of community fisheries in Tonle Sap Lake after fisheries reforms" presented by Ratha Seng.

To further information:
Annex III. Program of the ASEAN Water Platform 2019

Showing up next is the information of the Research Groups after the AWP 2019, gathering the delivery by mail and the one presented in the activity. The next step, framed in the fourth phase of the Research Strategy, is to present the Strategy at the Final DOCKSIDE Dissemination Conference of 5-6 September 2019 in Phnom Penh. There, the partners could see if any advance was made during the summer period and present the final conclusions.

Co-funded by the Erasmus+ Programme of the European Union

Research Group #1: Equitable, reasonable and sustainable use of water resources in Cambodia

Keywords of the Research:

Dams, Fisheries, Fish Passage Policy and Transboundary Cooperation.

Goal of the research:

To design a legal and policy framework for the sustainable management of water resources in Cambodia, with a special focus on the problem of dams and it relation to fisheries, and free fish passage, also in the context of transboundary cooperation.

Team Leader:

Tob Chann Aun, IFReDI/MAFF, Deputy, Channaun.tob@gmail.com

Co-leaders: Dr. Laura Movilla, VIGO, lauramovilla@uvigo.es, and Dr. Dewan Ahsan, SDU, dah@sam.sdu.dk

Team Members:

- Inland Fisheries Research and Development Institute (Cambodia)
- RULE (Cambodia)
- European partners:

Laura Movilla lauramovilla@uvigo.es and Francisco Torres ftorres@uvigo.es, University of Vigo, Spain

- Identification of other experts in the other partners, or relevant Stakeholders

Steps for this research to be conducted:

- Identify specialists/researchers/literature
- Skype meetings
- Data collection/survey
- Identify relevant international journals/conferences

Possible research options:

Data Collection to monitor impact of dam/weir on fisheries:

- FiA statistic; Fishery Statistic (10 years?); IFReDI/FiA
- Fish Lavae Monitoring data (10 years?); IFReDI/FiA; data analysis and presentation with special figure for 10 long migratory species
- Dai Fishery Monitoring data (10 years?); IFReDI/FiA; data analysis and presentation with special figure for 10 long migratory species

- Water level Data of Mekong River (MRC) (10 years); Official request to MRC Secretary
- Dam/weir data in Cambodia and planning of irrigation scheme in next 20 years; and Lao or Thailand; weir irrigation schemes ; official request to Ministry of Water Resource and Meteorology
- List of main Community fisheries (Cfi) along Mekong River and around Tonle Sap Great Lake (10 CFi along Mekong River; 10 CFi around Tonle Sap Great lake; review past and current fish catch, management plan, further perspective (required field survey and data analysis)
- List main Farmer Water User Group (FUG) along Mekong River and around Tonle Sap Great Lake (10 FUG along Mekong River; 10 FUG around Tonle Sap Great Lake); past and current crop pattern /yield, action plan of FUG and perspective on fishery and water demand (required field survey and data analysis)

International and National Treaties/convention (water and biodiversity)

- International water law
- National water law (Cambodia)
- Fishery Law (Cambodia)
- Environmental Law; special screening for EiA of dam/irrigation scheme development and fisheries and its mitigation measure and application

Regional water resource development plan (hydropower dam and irrigation planning):

- MRC data (official request to MRC; probably represent to actual plan by each Mekong Nation)
- Case study of Dam Removal in Europe
- Case study of Dam Removal in US

Site assessment of selected watershed in Cambodia and trans-boundary development:

- **Stung Mongkol Borey** (stream) located in Banteay Meanchey Province (Thailand –Cambodia) ; barrier assessment, mapping and prioritization to install fish passage
- ***Stung Chinit (stream)*** located in Kampong Thom Province; existing fish passage was constructed by ADB; fish catch assessment and indigenous knowledge survey to compare past and current CPUE; and 1 farmer water user group already formed
- ***Stung Pursat (stream***) located in Pursat Province; weir supported by ADB for irrigation development is under construction; barrier assessment, mapping and prioritization to install fish passage; barrier assessment and mapping work investigated 113 barriers (supported by USAID-DoI) and remaining approximately 200 barriers not yet evaluate (require field work and data analysis); lesson leant (2 fish passage are under-construction) in which 1 fish passage supported by USAID-DoI and 1 fish passage supported by ADB; another constructed by JiCA in Stung Pursat, Pursat Province; monitoring of

effective fish pass at each fish passage; fish species diversity; weigh; length frequency; species composition ; fish catch assessment of some deep Pools in each elected watershed

- ***Lower Sesan II Hydropower Dam*** (Stung Treng Province; Reviewing EIA report and mitigation measure, investigation of compensation for fishermen and community depend on fisheries and natural resource and women perspective ; 1 fish passage was constructed by Chines-Cambodian Company; investigate
- ***Cross border water resource management and development of Kong Fall area between LAO and Cambodia*** (Stung Treng and Champasak Province)

Regional Impact Monitoring in Mekong Region:

- MRC Council Study Report in Mekong Region (published)
- MRC joint monitoring program (official data request to MRC); review and quote of zoning impact code/score to reveal sustainability; water quality and bio-monitoring

Possible approaches from International Environmental and Water Law presented at the AWP 2019

BEST OPTIONS

a) Possible advantages of joining the two existing global water conventions: the UN Watercourses Convention and the UNECE water convention – good practices from the two global conventions

b) Applicability and Implications of International Customary Law of International Watercourses (equitable and reasonable utilization, no harm, cooperation)

c) Synergies between International Water Law and International Biodiversity Law (ecosystem services, Convention on Biological Diversity, Post 2020 Biodiversity Framework)

d) Plastic pollution: synergies between the Law of the sea and the Law of international watercourses

DISCARDED OPTIONS

e) Applicability and Implications of the 2030 Agenda as a framework for action since a legal point of view

f) Transboundary Impact Assessments: lessons from the UNECE Espoo Convention on Environmental Impact Assessment)

-g) Human rights perspectives (right to water, right to food, right to a safe, clean, healthy and sustainable environment)

Co-funded by the Erasmus+ Programme of the European Union

Research Group #2: Valuation of ecosystem services of mangrove forests in Cambodia

Introduction

Exclusively found in the intertidal region between sea and land in the tropics and subtropics, mangrove forests provide a wide range of ecosystem services (Giri et al., 2008). These forests form spawning grounds for numerous fish and shellfish, as well as vital habitats for birds, mammals, reptiles and aquatic species (Carney et al, 2014; Spencer & Moller, 2013); help stabilize shorelines and protect humans against the effects of storm, wave, coastal flooding, and tsunami (FAO, 2007; Giri et al., 2007); protect coastal regions from sea level rise by elevating soils around their mesh-like roots; function as a significant sink of carbon (Donato et al., 2011); serve as eco-tourism sites (Kathiresan, 2012) and support the livelihoods of local communities living in or near the forest areas by providing sources of food, medicine, fuel wood, charcoal and building materials (Giri et al., 2007; Duke et al., 2007).

Despite these countless benefits, mangroves are under growing pressure from various human activities including conversion to urban area, port development, overexploitation, pollution, clearance for shrimp farms and irrigation schemes which divert rivers and prevent fresh water from reaching mangroves (Hogarth, 2013; Spencer & Moller, 2013). Worldwide, approximately 35% of mangrove forests were lost from 1980 to 2000 (Valiela et al., 2001). Cambodia is no exception for the loss and degradation of mangroves. The rate of annual loss of Cambodian mangrove forests was reported at up to 1.2 percent (FAO, 2007). Therefore, it is essential to monitor mangrove extent over time.

A main reason behind the loss and degradation of mangroves is the difficulty in directly comparing the values of the mangrove ecosystem services against the economic values of commercial development (Brander et al., 2012). The lack of understanding of these values of mangrove ecosystem services has often led to their ignorance in private and public decision-making (Barbier, 2007). With regard to decision on their conversion, use, conservation and restoration, mangrove ecosystem services are generally undervalued because a lot of the services are non-market. Thus, economic valuation of the benefits of mangrove ecosystem services is essential to provide information to policy makers. In addition, there are numerous studies that have developed or applied methods to estimate the economic values of mangroves (Badola and Hussain, 2005; Lal 2003; Barbier, 2007; Camacho-Valdez et al., 2014, etc.). However, these methods are context specific and do not provide a full range of the values of mangrove ecosystem services. In Cambodia, as mangroves have been threatening by development, there is a need for the valuation of the mangroves in order to increase their recognition as a natural capital. Such valuation must consider all costs and benefits associated with direct and indirect uses of mangrove ecosystems. An important component of this valuation is the detailed fieldwork to

Co-funded by the Erasmus+ Programme of the European Union

gather information on uses of mangroves from local communities, to assess the ecological resources and to measure estimate carbon storage in the mangroves.

Keywords of the Research:

Mangrove, ecosystem services, ecological assessment, cost-benefit analysis, economic valuation

Goals of the research:

- To quantify recent changes of mangrove forest extent in Cambodia from 2007 to 2017
- To estimate carbon storage in the mangrove forests
- To conduct an ecological assessment of the mangrove forests
- To estimate of the economic values of mangrove ecosystem services.

Team Leaders:

Leader: Pok Sophak, RUA, poksophak@gmail.com

Co-leader: Pierre-Alexandre Mahieu, UN, Pierre-Alexandre.Mahieu@univ-nantes.fr (https://sites.google.com/site/pamahieu/home)

Advanced in the Research

This group presented in the AWP 2019 the advance they made in its research. By July, they already selected the methodology, Choice Experiment for the valuation, and the fieldwork. They carried out 232 survey in a specific Cambodian region, and they were analyzing the results. They expected to have the final research done by the end of the year 2019 and they will try to publish it.

References

Badola, R., & Hussain, A.S. (2005). Valuing ecosystem functions: an empirical study on the storm protection function of Bhitarkanika mangrove ecosystem, India. Environmental Conservation, 32(1), 85-92.

Barbier, E.B., (2007). Valuing ecosystems as productive inputs. Econ. Policy, 22, 177–229.

Brander, M.L., Wagtendonk, J.A., Hussain, S.S., McVittie, A., Verburg, H.P., de Groot, S.R., & Ploeg, S. (2012). Ecosystem service values for mangroves in Southeast Asia: A meta-analysis and value transfer application. Ecosystem Services, 1, 62-69.

Camacho-Valdez, V., Ruiz-Luna, A., Ghermandi, A., erlanga-Robles, A.C., Nunes, A.L.D.P. (2014). Effects of Land Use Changes on the Ecosystem Service Values of Coastal Wetlands. Environmental Management, 54, 852–864.

Co-funded by the Erasmus+ Programme of the European Union

Carney, J., Gillespie, T. W., & Rosomoff, R. (2014). Assessing forest change in a priority West African mangrove ecosystem: 1986-2010. Geoforum, 53, 126–135.

Donato, D. C., Kauffman, J. B., Murdiyarso, D., Kurnianto, S., Stidham, M., & Kanninen, M. (2011). Mangroves among the most carbon-rich forests in the tropics. Nature Geoscience, 4(5), 293–297.

Duke, N.C., et al. (2007). A world without mangroves? Science, 317, 41-42.

FAO (Food and Agriculture Organization of the United Nations). (2007). The world's mangroves 1980-2005. FAO Forestry Paper 153. FAO, Rome.

Giri, C., Zhu, Z., Tieszen, L. L., Singh, A., Gillette, S., & Kelmelis, J. A. (2008). Mangrove forest distributions and dynamics (1975-2005) of the tsunami-affected region of Asia. Journal of Biogeography, 35(3), 519–528.

Giri, C., Pengra, B., Zhu, Z., Singh, A., & Tieszen, L. L. (2007). Monitoring mangrove forest dynamics of the Sundarbans in Bangladesh and India using multi-temporal satellite data from 1973 to 2000. Estuarine, Coastal and Shelf Science, 73(1-2), 91–100.

Hogarth, J.P. (2013). Mangrove Ecosystems, in Encyclopedia of Biodiversity (Second Edition), Elsevier, vol. 5, p 10-22.

Kathiresan, K. (2012). Importance of Mangrove Ecosystem. International Journal of Marine Science, 2(10), 70–89.

Lal, P. (2003). Economic valuation of mangroves and decision-making in the Pacific. Ocean & Coastal Management, 46, 823–844

Spencer, T., & Möller, I. (2013). Mangrove Systems, in Treatise on Geomorphology, Elsevier. vol. 10, p. 360-391.

Valiela, I., Bowen L.J., & York, K.J. 2001. Mangrove forests: one of the world's threatened major tropical environments. BioScience, 51, 807-815.

Co-funded by the Erasmus+ Programme of the European Union

Research Group #3: Environmental Security and Climate Change, and New Research Groups #3.1, #3.2.

FIRST PRELIMINARY VERSION

Research Group	RG #3 : Environmental security and Climate Change
Team leader (co-leaders)	Dr. Sor (Chea Sim University) and Dr. Souter (Conservation International), and Dr. Patrice Guillotreau (UN) and Dr. Thomas Vallée (UN)
Meeting dates	21/01/2019 (skype) and Emails
Research members that assisted the meetings	Dr. Ratha Sor Dr. Dewan Ahsan Dr. Patrice Guillotreau Dr. Thomas Vallée Dr. Nick Souter
Problems encountered (Technological, schedule, etc.)	NONE

Introduction

In Cambodia, a new state with a long history, about 30% of the population depends on either agriculture or fisheries for their livelihood. Therefore, natural resources play a vital role, both to the economy and livelihoods in Cambodia. Recently, due to rapid development, Cambodia has been upgraded from a low-income country to a lower middle-income country (CIA, 2018). However, Cambodian economic growth is often occurring at the expense of environmental assets and overexploitation of natural resources. For instance, readymade garment and textile industries have been booming in Cambodia since the 1990s. This sector provides the backbone of the country's export-driven economy which employs more than 85% percent of all factory workers. Though this sector has provided jobs for the poor and significantly contributed to the national GDP (approx. 40%), pollution from this industry is a major threat for Cambodia. Untreated chemical wastes from the factories pollute streams and lakes, causing serious damages to the agricultural and fisheries sector. Tourism is another remarkable growth industry in Cambodia. According to Tourism Statistics Report (Ministry of Tourism, 2016) the country received 5.6 million tourists in 2017 and the current trend is of a constant yearly increase of around 5 % from 2015. For a nation with a population of 16 million, this is a huge number of extra people to accommodate and provide other necessary resources which also creates pressures on the use of natural resources. So, mass tourism as well as unplanned urbanization and infrastructural developments are challenging issues that are increasing the pressure on natural resources. Therefore, it is the right time to incorporate the green growth/evolution concept in Cambodia for sustainable development.

Co-funded by the Erasmus+ Programme of the European Union

Realizing the importance of green growth, the Royal government of Cambodia established the National Council for Sustainable Development (NCSD) by the Ministry of Environment. NCSD has laid out the National Environment Strategy and Action Plan (NESAP) 2016-2023 which targets the continuing stimulation of economic growth and environmental protection, sustainable natural resources management, poverty reduction, enhancement of gender equality, social equity, and good governance to advance Cambodia towards a developed country.

Cambodia's fisheries communities are highly vulnerable to the effects of the climate change (Kutin et al. 2016). By 2030 the runoff throughout the Mekong Basin is expected to increase by 21%, and the wet season flood level of the Tonle Sap Lake may rise by 2.3 meters (Eastham et al. 2008). Moreover, climate change could bring more extreme weather events such as floods or storms. As a consequence, adaptive capacity is an important component closely related to the sustainability of the fisheries' sector. The vulnerability of 132 national economies to potential climate change impacts on their capture fisheries was calculated by Allison et al. (2009) using an indicator-based approach. They calculate a composite index of adaptive capacity by aggregating indicators of health, education, governance and wealth. Their results judge the adaptive capacity of Cambodia fishery to be low, and, as a consequence, the vulnerability index of Cambodia is high.

The purpose of this research will be to analyze the changes of Ecosystem and livelihoods of the mollusk and crustacean community fisheries in Tonle Sap/Mekong and to provide recommendations in order to increase resilience to these changes. We also hope to better understand how people perceive the fishery in terms of it providing an ecosystem service, that is are they getting what they need, both for personal consumption, excess for sale and does this change seasonally.

Theoretical frame / Methodology

The project aims to answer the following questions.

1. What are the changes of the ecosystem in the target area? How and why?
2. What are the interventions of stakeholders to respond these changes? How efficient are they?
3. How do fishers perceive the ecosystem changes? What factors do influence their perception?
4. How to improve the resilience of natural and social systems?

The main difficulties will be the lack of data, feedback from communities (and ministries?), and the lack of a pre-existing index to measure resilience. This index is necessary in order to provide recommendations towards an increase of the resilience of both natural and social systems. However, we aim to develop such an index

which will likely be based on the Freshwater Health Index (Vollmer et al. 2018) which is currently being implemented in the Tonle Sap basin (June 2019).

The Research will be conducted by the following steps and corresponding methodology

1. Identify the changes of ES and potential external shocks
    - Field Survey of various areas of the lake (e.g. in Chhnuk True -Kampong Chhnang province, Kampong Luong – Puresat province, Prek Taol – Battambong province, Chong Khneas – Siem Reap province, and Steun Sen – Kampong Thum province) subject to varying degrees of mollusk and crustacean fishing pressure and look at the impact of climate change
2. Evaluate the responses of stakeholders to the ongoing changes
    - Stakeholder survey.
3. Factors influence the fishers perception
    - Field survey
4. Measure the social and ecological adaptive capacity
    - Developing practical field guides for local researchers and fisher to facilitate further studies and promote good fishing practices
    - Composite Index to be built based on the Freshwater Health Index
5. Increase the social and ecological adaptive capacity
    - Provide a set of recommendations for management planning.

Advances in the research

The research will benefit also from the following current related research.

1) Inland commercial fishing lot and mobile gear fishing in Tonle Sap Lake: an assessment of fisheries and fish community structure RESEARCH TOPIC #3.1.

Bunyeth Chan | Peng Bun Ngor | Sovan Lek | Thomas Vallee | Patrice Guillotreau

Tonle Sap Lake (TSL) is the largest natural lake in Southeast Asia. The TSL supplies fish products and protein to 15 million Cambodian people. The TSL fisheries were supplied by two main sources: the commercial fishing lot fisheries (FLF) and mobile gear fisheries (MGF). This study responds to the questions: (1) Is the commercial fishing lot fisheries more intensively pressure on the TSL fisheries than mobile gear fisheries? (2) Is there a difference in fish community composition and structure between these two fisheries? Alternatively, do the FLF and MGF capture the same or different fishes? Here, we used the 6-yrs fish abundance data of the FLF and MGF collected from the TSL to investigate the dissimilarity in fish community composition between these two

sources and define the species that are indicative for each using multivariate analyses. We found that the biomass from the MGF was higher than those of the FLF, indicating that the MGF is more influential on the TSL fisheries than the FLF. Moreover, we detected a significant difference in fish community composition between the FLF and MGF despite there was some overlap in fish composition between these two. Specifically, we found that some fish species were mainly captured from the FLF, whereas other species were caught by the MGF, while other species were captured by both FLF and MGF. Furthermore, we found that harvesting of fish of the two fisheries is not related to morphological, functional and biological traits, suggesting that these two fisheries catch fish at the same manner in which they harvest fish at all size class, all functional and biological group conforming the indiscriminate fishing aspect. The results are informative for monitoring and conservation actions of the fisheries in the lake.

2) Evaluating the success and sustainability of community fisheries in Tonle Sap Lake after fisheries reforms RESEARCH TOPIC #3.2.

Ratha Seng, Patrice Guillotreau, Thomas Vallée, Dewan Ahsan

This research quantitatively evaluates community fisheries, a co-management institutions, in the Tonle Sap Lake after fisheries reforms in 2012 using members' perceptions. The goal of the researh is to determine factors influencing the success and sustainability of the community fisheries. Several lessons were learned, or confirmed, by the analysis, associating with positive and negative change. Control over fisheries and employment opportunities remain no difference after the reforms. Access to fisheries, resolving fisheries conflicts and knowledge of fisheries management are related to perceptions of positive change while overall quality of fish and income from fisheries are on the opposite side, suggesting the development of livelihood diversification strategies and strengthening the institutional support to the community fisheries organizations in the Lake.

3) Aquaculture Higher Education and Training in Cambodia: A Q-methodology Study and Curriculum Comparison

Caroline Schkeeper, MsC student, Univ. Nantes

Although Cambodia has historically relied on its inland freshwater capture fisheries, it is predicted that these have plateaued, increasing the importance of developing sustainable aquaculture in this region. In recent years, Cambodia has enjoyed growth in the aquaculture sector, but it has not yet developed into a commercial industry like its powerhouse neighbors. The discrepancy in the rate of development is likely due to several factors, but it may possibly be explained by the undeveloped nature of aquaculture higher education and

training in Cambodia. While the issues facing the education sector in general are well-documented, the perceptions and opinions of relevant aquaculture stakeholders on issues facing the development of aquaculture education in Cambodia are not well-known. This study used q-methodology to assess the perceptions and opinions of nineteen relevant stakeholders on the issues and areas of improvement of aquaculture education and training in terms of industry development. The analysis revealed four well-defined factors and certain areas of consensus which identified major barriers to educational and industry development and possible ways forward. The major barriers identified were: inadequate technology, low student motivation, inefficient development programs, low quality of educators, and lack of university programs. In conjunction with the q-methodology analysis, a curriculum analysis was performed in order to identify possible gaps or strengths in Cambodian aquaculture bachelor programs compared to neighboring countries with stronger aquaculture education. This analysis revealed that aquaculture curriculum varies from country to country and there is no level of standardization across the region. However, across the four factors there was general agreement to design aquaculture curriculum in Cambodia according to stakeholder and industry needs. Overall, it is recommended that Cambodian universities and relevant stakeholders strengthen international collaboration in order to advance both aquaculture education and the industry.

Bibliography

- P.B. Ngor, R. Sor, L.H. Prak, N. So, Z.S. Hogan and S. Lek, Mollusc fisheries and length – weight relationship in Tonle Sap flood pulse system, Cambodia, Annales de Limnologie - International Journal of Limnology, 2018, 54 (34).
- Allison EH, Perry AL, Badjeck MC, Neil Adger W, Brown K., Conway D, Halls AS, Pilling GM, Reynolds ID, Andrew NL, Dulvy NK., (2009), Vulnerability of national economies to the impacts of climate change on fisheries. Fish and Fisheries, 10(2):173-196.
- Buhlak Y., Multi-dimensional Aquaculture Investor Index: Black Sea Region Case Study, Master Thesis, University of Nantes, 2018.
- Dueri S., Guillotreau P., Jiménez-Toribio R., Oliveros Ramos R., Bopp L., Maury O. (2016), Food security or economic profitability? Projecting the effects of climate and socio-economic changes on the global skipjack tuna fisheries under various management strategies, *Global Environmental Change*, http://dx.doi.org/10.1016/j.gloenvcha.2016.08.003
- Eastham J., Mpelasoka F., Mainuddin M., Ticehurst C., Dyce P., Hodgson G., Kirby M.,(2008), Mekong River Basin water resources assessment: Impacts of climate change.

Co-funded by the Erasmus+ Programme of the European Union

- Guillotreau P., Bundy A., Perry R.I. (Eds) (2018), Global change in marine systems, Integrating societal and governing responses. Routledge, Routledge Studies in Environment, Culture and Society (RSECS) Series, 330 p., www.routledge.com
- Guillotreau P., Allison E.H., Bundy A., Cooley S.R., Defeo O., Le Bihan V., Pardo S., Perry R.I., Santopietro G., Seki T. (2017), A comparative appraisal of the resilience of marine social-ecological systems to bivalve mass mortalities, *Ecology and Society* 22(1):46.
- Kutin N., Perraudau Y. and Vallée t., Sustainable Fisheries Management Index Methodological Proposal in the case of ASEAN, (2016), NUM research series, 3, pp.284-320 (2016).
- Slater, M. J., 2017. Societal and Economic Impacts of Aquaculture. [Online] Available at: https://www.was.org/articles/Societal-and-Economic-Impacts-of-Aquaculture.aspx#.WtOV7Yhubb4
- Villasante, S. et al., 2012. The Global Seafood Market Performance. Index: A theoretical proposal and potential empirical applications. Marine Policy, Issue 36, p. 142–152.
- Vollmer, D., et al. (2018). Integrating the social, hydrological and ecological dimensions of freshwater health: The Freshwater Health Index, Science of The Total Environment, 627, 304-313, doi.org/10.1016/j.scitotenv.2018.01.040.
- Volpe, J. P. et al., 2013. Global Aquaculture Performance Index (GAPI): The First Global Environmental Assessment of Marine Fish Farming. Sustainability, Issue 5, pp. 3976-3991.

Co-funded by the Erasmus+ Programme of the European Union

5. Fourth phase: Final Results

The Research Strategy has been proposed with an adaptive approach, which configures its phases based on the results obtained. Due to this adaptation, the fourth phase had a very short effective duration that has only allowed presenting the conclusions of the strategy. The main causes were: 1) the duration of the second and third phase, longer than the four months estimated; 2) the inoperability of two weeks in August, because of the holidays in Europe; 3) the completion of the final dissemination meeting in September instead October. Thus, the fourth phase began on 1 August (20 August taking out the holidays period) and ended on 7 October, one week before ending the project.

The Final Dissemination Conference, held on 5-6 September 2019 in the Royal University of Law and Economics, Phnom Penh, was the main activity of the phase. As the Research Groups had not enough time to advance in their researches, the meeting presented the objectives and summary of each group and discussed what should be done next. For this future development, the DOCKSIDE consortium have one important feature, we will have another CBHE project, the GREENCAP, from 15 January 2020 to 14 January 2023. In this sense, the main conclusions of this **"One Year Progress of the Research Strategy",** try to include new ideas for the best practices in the GREENCAP:

1. The Research Strategy was a useful tool to define topics, have control on the partners and highlight the problems in the collaborative research. It can also be improved in future applications.
2. The main lines of research highlighted focuses on different topics (section 2.1.): Sustainable Natural Resources Management; Fisheries; International Relations; Water management; Climate Change; and Agricultural and Rural Development. Nevertheless, not all the researches did run as well as expected. Are we defining the topics and partnerships correctly?
3. Related to the three Research Groups that exist by the end of the DOCKSIDE, all of them are into different phase. RG2 is the one that advanced the most, both in the approach of its investigation and in the fieldwork made. RG3 has the greatest potential because of its thematic, even they only achieved to specify the objective and propose the methodology. RG1 has the worst results, but it could detect different ways to approach the chosen theme.
4. The GREENCAP will be more oriented to strengthen the link between university and stakeholders (mainly companys, NGO, etc) and focused in the so called "GreenJobs". However, the joint research will continue to be an essential part of the project. How can we integrate in the Research Strategy other initiatives (beside of existent groups) of research created by other professors/researchers involved in the DOCKSIDE/GREENCAP?
5. The problems remain in the collaborations. There is a lack of commitment and leadership of the Cambodian partners and, as a Capacity Building Project, leading have to be their task and responsibility. The GREENCAP should demand more quality and exigency in the activities, not allowing

these problems. We need to create incentives for the Research, which can they be? Can we make mandatory any small researches? For example, in the mobility students and staff have to make a mobility report, can we create a "mobility research report"?

6. The most important challenge is that there are not enough Cambodian Researchers working in the consortium.

To further information:
Annex IV. Program of the Dissemination Conference

6. Conclusions: The Research Strategy as a collaborative research tool

Beyond the specific conclusions for the DOCKSIDE project, it is possible to assess the adequacy of this strategy as an organizational tool. Fostering collaborative research in an international project is not always easy and several problems such as schedules, time and cultural differences, technological capabilities or possibility of access to information must be addressed.

The Research Strategy was implemented, between the 1 July 2018 to 7 October 2019, to improve the Cambodian research activities in Environmental and Maritime fields. To achieve synergies, the strategy was based on former project activities and used the new ones to collect information, as the Summer School 2018 and the ASEAN Water Platform 2019, where professors, students and stakeholders converged.

The Research Strategy separates the research collaboration process into four phases, each one planned on the results obtained in the previous one. The first phase is the definition of the Research Topics and the Research Organization; the second focuses on the launch of Research Groups about the previously selected topics; the third phase is the development of the research; and the fourth presents the results obtained. The main idea is to define and control the research collaborations so that, on the one hand, researchers have certain deadlines that force them to move forward, and on the other hand, the project can detect where the problems arise.

The definition of the Research Strategy and its use as an organizational tool to foster the research, during more than a year, shows different advantages and disadvantages. Related to the second, some recommendations to improve the tool can be made:

ADVANTAGES

1. The strategy is a good tool to select the research topics that partners share.
2. The Research Organization Questionnaire offers to the partners the possibility to shows if there are specific problems at the beginning of the collaboration.

Co-funded by the Erasmus+ Programme of the European Union

3. At the beginning, all the partners participate in all the Research Groups, so no one is excluded and they have the possibility to participate if they want to.
4. There is schedule that guides the researchers, so they have to keep in touch regularly.
5. The project can control the evolution of the researches and detect the problems.
6. The strategy is an adaptative tool that can change according to the results.

DISADVANTAGES AND RECOMMENDATIONS

1. There is a difficulty to meet deadlines. It is necessary to consider holiday calendars and other deadlines of the project in order to be more realistic with the timing. It might be appropriate to ask the partners in the Research Questionnaire when they have more availability.
2. The coordinator can control the development, but it cannot obligate the partners to fulfill the schedule and the research. The control should be more constant, maybe each month, to detect early the groups that are not working. There should be incentives to collaborate.
3. There was a small relation between the leaders of the Research Groups and the coordinators of the Research Strategy. It could be a good practice if the strategy can have, at least, one coordinator from the country partner (Cambodia in this case). Maybe some cultural problems will be avoided.
4. One year is a short time to achieve good results. The project has to be realistic with the initial capacities and relations among the partners and plan the strategy according to it.

Co-funded by the Erasmus+ Programme of the European Union

Annex I. The Research Questionnaire organization and responses

SECTION I: RESEARCH TOPICS			
Institution name: Department/Research Center/Group that completes the questionnaire: Number of researcher:			
I.1. Domain and Topics that are really active in your department/research center/group and their intersection			
Domain	General Topic	Further description of the Topic	Persons of reference
I.2. Domain and topics that are present in your department/research center/group but would need some actions to be made more active			
Domain	General Topic	Further description of the Topic	Persons of reference (if there is any)
I.3.Topics and/or domain your department/research center/group would like to develop, in future years, in accordance with its development strategy but that need new initiatives in order to develop the common ground			
Domain	General Topic	Further description of the Topic	Persons of reference (if there is any)
I.4. As the Project has been developed for almost two years, indicate the topics from other partners´ institutions that your department/research center/group has identified and in which it could be interested (Seeing in the Workshop, Mobility internships, Trainings Sessions…)			
Domain	General Topic	Further description of the Topic	Institution and persons of reference
I.5. Small/marginal/individual topics that may not be perfectly visible at the collective level, but that can establish very motivated connection points for collaboration between individuals from different department/research center/group (like meeting by chance in a conference the only other person who works on your topic of predilection…)			
Domain	General Topic	Further description of the Topic	Institution and persons of reference

The fields of FURTHER DESCRIPTION OF THE TOPIC and PERSON OF REFERENCE are free text fields, while for the DOMAIN and GENERAL TOPIC the excel file provide a drop-down menu:

- DOMAIN drop-down menu: Finance/Economics; Management/Logistic; Law; Statistics and Research Methods; Applied Sciences; Natural Sciences; Other.
- GENERAL TOPIC in a drop-down menu: Agriculture and Rural Development; Sustainable Natural Resources Management; Climate Change; Water management; Energy; Fisheries; International relations, regulations and policies; Human Rights; Tourism; Others.

Co-funded by the Erasmus+ Programme of the European Union

SECTION 2: RESEARCH ORGANIZATION

Institution name:

Department/Research Center/Group that completes the questionnaire:

Number of researcher:

II.1. Regarding to your department/research center/group previous international experience, how many joint researches have been done and what level reached the best joint research?

Number of joint researches (possible answers in a drop-down menu):

- 0
- 1
- 2
- 3
- 4
- Between 5 and 10
- More than 10

Level of the best joint research (possible answers in a drop-down menu):

- We publish an academic paper in a high impact review
- We publish an academic paper in a middle impact review
- We publish an academic paper in a low impact review
- We have a communication in an international congress
- We have a communication in a national congress
- We have done research, but we do not have any publication or communication
- We do not have international joint researches

II.2. Regarding to your department/research center/group previous international experience and joint researches, what were the main problems you had? (Order them according to the level of importance)

1º Problem, 2º Problem and 3º Problem (possible answers in a drop-down menu):

- Communication problems
- Lack of incentives
- Technological or equipment problems
- Differences with the methodology and measures among the partners
- Cultural differences
- Schedule
- Different research topics among the partners
- Others

If you have answered "Others", please specify which (free text)

II.3 What technological and academic resources to carry out a joint research has your department/research center/group?

Access to private databases and international reviews in topics and domain mentioned above (Possible answers in a drop-down menu):

- Yes
- Yes, but it is necessary to improve it
- No

Access to video conference room (possible answers in a drop-down menu):

- Yes
- Yes, but it is necessary to improve it
- No

Capacity to make field research (possible answers in a drop-down menu):

- Yes
- Yes, but it is necessary to improve it
- No

Software and hardware to analyze the data (possible answers in a drop-down menu):

- Yes
- Yes, but it is necessary to improve it
- No

Research staff (possible answers in a drop-down menu):

- Yes
- Yes, but it is necessary to improve it
- No

Specific funding (possible answers in a drop-down menu):

- Yes
- Yes, but it is necessary to improve it
- No

Could you precise the most important lack of technological and/or academic resources for research, in any (free text)

II.4. What could be the best way to organize a joint research among the partners?

1º Best way, 2º Best way and 3º Best way (possible answers in a drop-down menu):

- Collaboration between and Cambodian university with one European university
- Collaboration between all the Cambodian universities with one European university
- Collaboration between and Cambodian university with all the European universities
- Joint collaboration between the 8 DOCKSIDE partners
- Direct collaboration among one Cambodian research center with one European department
- Direct collaboration between one (or few) researcher/professor from different university (Cambodian or European)
- Others

If you have answered "Others", please specify which (free text)

II.5. What contribution to the joint research do you expect from the European partners? (Cambodian partners for the European Universities)

1º Contribution, 2º Contribution and 3º Contribution (possible answers in a drop-down menu):

- Theoretical Knowledge
- Methodological Knowledge
- Data provision
- Field research
- Technology and equipment
- Regional Knowledge
- Others

If you have answered "Others", please specify which (free text)

II.6. If you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch (by mail, skype, telephone…)?

Period (possible answers in a drop-down menu):

- More than once a week
- Once a week
- Once each two weeks
- Once a month

- Less than once a month
II.7. During the DOCKSIDE Stakeholders Analysis many stakeholders mentioned that certain cultural factors influence the performance of students. What cultural factors do you think could affect to the research activities? (Free text)
II.8. How do you think the DOCKSIDE project could improve the motivation and incentives to develop research projects among the partners (free text)
II.9. Please, add any additional information you want to expose or any concern you have to face a research collaboration (free text)

UNANTES – Research Topics

Institution name	University of Nantes	Instructions: Please, complete just the yellow cells and add many rows as necessary	
Department/Research Center/Group that completes the questionnaire	LEMNA (Research unit in Economics and Management)		
Number of Researchers of the Department/Research Center/Group	90		
I.1. Domain and topics that are really active in your department/research center/group and their intersection			
Domain	General Topic	Further description of the topic	Persons of Reference
Finance/Economics	Sustainable Natural Resources Management	Water and forest issues	P.-A. Mahieu and L. Richefort
Law	Climate Change	Adaptive strategies	P. Guillotreau
Statistics and Research Methods	Fisheries	Bioeconomic modelling	P. Guillotreau and T. Vallée
	Energy	Optimization of energy mix, impact of windmills on other activities	R. Loisel and L. Lemiale, L. Baranger
	International relations, regulations and policies	Maritime Law, reform of the UNCLOS	O. Delfour, P. Chaumette
I.2. Domain and topics that are present in your department/research center/group but would need some actions to be made more active			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Management/Logistic	Others	Management of information systems and impacts on circular economy	M. Bidan
	Sustainable Natural Resources Management	Green accounting	N. Antheaume
I.3. Topics and/or domain your department/research center/group would like to develop, in future years, in accordance with its development strategy but that need new initiatives in order to develop the common ground			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Finance/Economics	Agriculture and Rural Development	Aquaculture development, risk management	V. Le Bihan
	Climate Change	Real option values	S. Pardo
	Energy	Carbon markets, price volatility	O. Darné, B. Sévi
I.4. As the Project has been developed for almost two years, indicate the topics from other partners´ institutions that your department/research center/group has identified and in which it could be interested (Seeing in the Workshop, Mobility internships, Trainings Sessions…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Management/Logistic	Sustainable Natural Resources Management	Risk management of small-scale fisheries and farms	D. Ahsan (SDU)
Applied Sciences	Fisheries	Community fisheries	R. Seng, M. Neang (RUA)
Law	Water management	Water quality issues	S. Nou (NUM)
	International relations, regulations and policies	Social law and seafarers	J. Cabeza Pereiro and F. Torres (U. VIGO)
I.5. Small/marginal/individual topics that may not be perfectly visible at the collective level, but that can establish very motivated connection points for collaboration between individuals from different department/research center/group (like meeting by chance in a conference the only other person who works on your topic of predilection…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Management/Logistic	Agriculture and Rural Development	Risk management in aquaculture and small-scale fisheries	D. Ahsan (SDU), R. Seng (RUA)
Finance/Economics	Sustainable Natural Resources Management	Environmental performances	N. Vestergaard (SDU), Cambodian partner to be identified

Co-funded by the Erasmus+ Programme of the European Union

UNANTES – Research Organization

Institution	University of Nantes
Department/Research Center/Group that completes the questionnaire	LEMNA (Research unit in Economics and Management)
Number of Researchers of the Department/Research Center/Group	90
II.1. Regarding to your department/research center/group previous international experience, how many joint researches have been done and what level reached the best joint research?	
Number of joint researches	3
Level of the best joint research	We publish an academic paper in a middle impact review
II.2. Regarding to your department/research center/group previous international experience and joint researches, what were the main problems you had? (Order them according to the level of importance)	
1º Problem	Lack of incentives
2º Problem	Different research topics among the partners
3º Problem	Others
If you have answered "Others", please specify which (free text)	Difficulty to comply with deadlines for intermediate works
II.3 What technological and academic resources to carry out a joint research has your department/research center/group?	
Access to private databases and international reviews (in topics and domain mentioned before in I.Research Topics)	Yes
Access to video conference room	Yes
Capacity to make field research	Yes, but it is necessary to improve it
Software and hardware to analyze the data	Yes
Research staff	Yes
Specific funding	Yes, but it is necessary to improve it
Could you precise the most important lack of technological and/or academic resources for research, if any (free text)	
II.4. What could be the best way to organize a joint research among the partners? (Order them according to the level of importance)	
1º Best way	Direct collaboration among one Cambodian research center with one European department
2º Best way	Direct collaboration between one (or few) researcher/professor from different university (Cambodian or European)
3º Best way	Joint collaboration between the 8 DOCKSIDE partners
If you have answered "Others", please specify which (free text)	
II.5. What main contribution to the joint research do you expect from the European partners (Cambodian partners)? (Order them according to the level of importance)	
1º Contribution	Field research
2º Contribution	Regional Knowledge
3º Contribution	Data provision
If you have answered "Others", please specify which (free text)	
II.6. If you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch (by mail, skype, telephone…)?	
Period of time	Once each two weeks
II.7. During the DOCKSIDE Stakeholders Analysis many stakeholders mentioned that certain cultural factors influence the performance of students. What cultural factors do you think could affect to the research activities?	
Free text space	Time devoted to research activity which depends on national academic organization, the current number of research programs…
II.8. How do you think the DOCKSIDE project could improve the motivation and incentives to develop research projects among the partners?	
Free text space	To write a collective book (or a joint academic article, such as a position paper) on a common field (e.g. management of the Tonle Sap resources) involving most of the partners of the project. To make a proposal on some specific call for proposals of Cambodian, regional or international institutions.
II.9. Please, add any additional information you want to expose or any concern you have to face a research collaboration	
Free text space	Cambodian partners should suggest some research topics of top interest for their country. Suggestion of topics for Master theses to initiate joint collaboration and PhD research between European and Cambodian partners.

Co-funded by the Erasmus+ Programme of the European Union

SDU – Research Topics

Institution name	Southdern Denmark University		
Department/Research Center/Group that completes the questionnaire	The Management and Economics of Resources and Environment (MERE) Research Group, Dept of Sociology, Env and Business Economics (SEBE).		Instructions: Please, complete just the yellow cells and add many rows as necessary
Number of Researchers of the Department/Research Center/Group			
I.1. Domain and topics that are really active in your department/research center/group and their intersection			
Domain	General Topic	Further description of the topic	Persons of Reference
	Sustainable Natural Resources Management Fisheries Climate Change Energy Water management		
I.2. Domain and topics that are present in your department/research center/group but would need some actions to be made more active			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
I.3. Topics and/or domain your department/research center/group would like to develop, in future years, in accordance with its development strategy but that need new initiatives in order to develop the common ground			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
	Climate Change Sustainable Natural Resources Management Energy Fisheries		
I.4. As the Project has been developed for almost two years, indicate the topics from other partners´ institutions that your department/research center/group has identified and in which it could be interested (Seeing in the Workshop, Mobility internships, Trainings Sessions…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Finance/Economics	Sustainable Natural Resources Management		Dewan Ahsan , MERE group, SEBE, SDU
Others	Fisheries		Niels Vestergaard , MERE group, SEBE, SDU
	Climate Change		
I.5. Small/marginal/individual topics that may not be perfectly visible at the collective level, but that can establish very motivated connection points for collaboration between individuals from different department/research center/group (like meeting by chance in a conference the only other person who works on your topic of predilection…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference

Co-funded by the Erasmus+ Programme of the European Union

SDU – Research Organization

Institution	Southdern Denmark University
Department/Research Center/Group that completes the questionnaire	The Management and Economics of Resources and Environment (MERE) Research Group, Dept of Sociology, Env and Business Economics (SEBE).
Number of Researchers of the Department/Research Center/Group	
II.1. Regarding to your department/research center/group previous international experience, how many joint researches have been done and what level reached the best joint research?	
Number of joint researches	Between 5 and 10
Level of the best joint research	We publish an academic paper in a high impact review
II.2. Regarding to your department/research center/group previous international experience and joint researches, what were the main problems you had? (Order them according to the level of importance)	
1º Problem	
2º Problem	
3º Problem	
If you have answered "Others", please specify which (free text)	We did not faced any problems . However a few time we faced prblem with schedule.
II.3 What technological and academic resources to carry out a joint research has your department/research center/group?	
Access to private databases and international reviews (in topics and domain mentioned before in I.Research Topics)	Yes
Access to video conference room	Yes
Capacity to make field research	Yes
Software and hardware to analyze the data	Yes
Research staff	Yes
Specific funding	Yes, but it is necessary to improve it
Could you precise the most important lack of technological and/or academic resources for research, in any? (free text)	
II.4. What could be the best way to organize a joint research among the partners? (Order them according to the level of importance)	
1º Best way	Direct collaboration between one (or few) researcher/professor from different university (Cambodian or European)
2º Best way	Collaboration between one Cambodian university with all the European universities
3º Best way	Collaboration between one Cambodian university with one European university
If you have answered "Others", please specify which (free text)	
II.5. What main contribution to the joint research do you expect from the European partners (Cambodian partners)? (Order them according to the level of importance)	
1º Contribution	Field research
2º Contribution	Regional Knowledge
3º Contribution	Methodological Knowledge
If you have answered "Others", please specify which (free text)	
II.6. If you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch (by mail, skype, telephone…)?	
Period of time	Less than once a month
II.7. During the DOCKSIDE Stakeholders Analysis many stakeholders mentioned that certain cultural factors influence the performance of students. What cultural factors do you think could affect to the research activities?	
Free text space	
II.8. How do you think the DOCKSIDE project could improve the motivation and incentives to develop research projects among the partners?	
Free text space	Finding out couple of key people who are really interested in joint research, Increase communication, joint application for research funding, initiation of writing research articles
II.9. Please, add any additional information you want to expose or any concern you have to face a research collaboration	
Free text space	

Co-funded by the Erasmus+ Programme of the European Union

RULE – Research Topics

Institution name	Royal University of Law and Economics	Instructions: Please, complete just the yellow cells and add many rows as necessary	
Department/Research Center/Group that completes the questionnaire	Scientific Committee		
Number of Researchers of the Department/Research Center/Group	12		
I.1. Domain and topics that are really active in your department/research center/group and their intersection			
Domain	General Topic	Further description of the topic	Persons of Reference
Law	Human Rights	International Criminal Law	SOY Kimsan, HAP Phalthy
I.2. Domain and topics that are present in your department/research center/group but would need some actions to be made more active			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Law	International relations, regulations and policies	Law fo the Sea / Maritime Law	DANY Chhoukroth
Statistics and Research Methods	Tourism	Sustainable Development	SAM Vichet
Management/Logistic	International relations, regulations and policies	Maritime Logistics	SRUN Sopheak
I.3. Topics and/or domain your department/research center/group would like to develop, in future years, in accordance with its development strategy but that need new initiatives in order to develop the common ground			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Statistics and Research Methods	Climate Change	Risk Management	CHHORN Dina
Law	Human Rights	Access to Water	THANG Vong Sovityea
I.4. As the Project has been developed for almost two years, indicate the topics from other partners´ institutions that your department/research center/group has identified and in which it could be interested (Seeing in the Workshop, Mobility internships, Trainings Sessions…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Management/Logistic	Sustainable Natural Resources Management	Risk management of small-scale fisheries and farms	D. Ahsan (SDU)
Law	International relations, regulations and policies	Human Rights	J. Cabeza Pereiro and F. Torres (U. VIGO)
Statistics and Research Methods	Sustainable Natural Resources Management	Natural Ressources Economics and International Economics	T. Vallée (UN)
I.5. Small/marginal/individual topics that may not be perfectly visible at the collective level, but that can establish very motivated connection points for collaboration between individuals from different department/research center/group (like meeting by chance in a conference the only other person who works on your topic of predilection…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Finance/Economics	Energy	Economics of Green Energy	CUREG
Finance/Economics	Tourism	Sustainable development and protection of Cambodian Coast	CUREG

Co-funded by the Erasmus+ Programme of the European Union

RULE – Research Organization

Institution	Royal University of Law and Economics
Department/Research Center/Group that completes the questionnaire	Scientif Committee
Number of Researchers of the Department/Research Center/Group	12
II.1. Regarding to your department/research center/group previous international experience, how many joint researches have been done and what level reached the best joint research?	
Number of joint researches	0
Level of the best joint research	We do not have international joint researches
II.2. Regarding to your department/research center/group previous international experience and joint researches, what were the main problems you had? (Order them according to the level of importance)	
1º Problem	Differences with the methodology and measures among the partners
2º Problem	Lack of incentives
3º Problem	Others
If you have answered "Others", please specify which (free text)	Difficult to find in the University teachers who have the necessary skills (few PhD)
II.3 What technological and academic resources to carry out a joint research has your department/research center/group?	
Access to private databases and international reviews (in topics and domain mentioned before in I.Research Topics)	No
Access to video conference room	Yes
Capacity to make field research	No
Software and hardware to analyze the data	No
Research staff	No
Specific funding	No
Could you precise the most important lack of technological and/or academic resources for research, if any (free text)	Lack of human resources + lack of incentives (no specific funding : teachers are paid on hours taught)
II.4. What could be the best way to organize a joint research among the partners? (Order them according to the level of importance)	
1º Best way	Direct collaboration between one (or few) researcher/professor from different university (Cambodian or European)
2º Best way	Direct collaboration among one Cambodian research center with one European department
3º Best way	Collaboration between one Cambodian university with one European university
If you have answered "Others", please specify which (free text)	
II.5. What main contribution to the joint research do you expect from the European partners (Cambodian partners)? (Order them according to the level of importance)	
1º Contribution	Methodological Knowledge
2º Contribution	Theoretical Knowledge
3º Contribution	Field research
If you have answered "Others", please specify which (free text)	
II.6. If you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch (by mail, skype, telephone…)?	
Period of time	Once a month
II.7. During the DOCKSIDE Stakeholders Analysis many stakeholders mentioned that certain cultural factors influence the performance of students. What cultural factors do you think could affect to the research activities?	
Free text space	Time devoted to research activity which depends on national academic organization, the current number of research programs… In Cambodia, professors have no incentive to research and they usually did not learn how to do it.... Research is also about facing the "unknown": Cambodian Professors, usually, are seen as the "peoiple who know": they cannot dare appearing as someone who fails or do wrong hypothesis: therefore, it is easy to teach with certitude than to do research without knowing where you go...
II.8. How do you think the DOCKSIDE project could improve the motivation and incentives to develop research projects among the partners?	
Free text space	By gradually doing collective work with, progressively, trying to reach research on an equal basis. Starting by supervision by European Researcher to joint article
II.9. Please, add any additional information you want to expose or any concern you have to face a research collaboration	
Free text space	Usually, researchers from RULE, which proposes general curricula in Economics, Management and Law, do not have a clear picture on research especially on specific fields such as maritime or/and environmental fields. There needs to be an explanation from European researchers of the added value of research in these fields. European researchers / Centers shall also explain and give research ideas to Cambodian researchers : do not expect them to come with innovative ideas as they usually do not see clearly what is at stake. There shall then be a strong and intensive support from the European side

Co-funded by the Erasmus+ Programme of the European Union

RUA – Research Topics

Institution name	Royal University of Agriculture		Instructions: Please, complete just the yellow cells and add many rows as necessary
Department/Research Center/Group that completes the questionnaire	ECOLAND research center		
Number of Researchers of the Department/Research Center/Group	4 PhD, 1 PhD student, 2 Msc, 1 Bsc and 2 volunteer (4th years) and 1 international research expert from IRD		
I.1. Domain and topics that are really active in your department/research center/group and their intersection			
Domain	General Topic	Further description of the topic	Persons of Reference
Others	Agriculture and Rural Development	Agrarian transition	Mr. Kimchhin Sok, Mr. Kong Rada, Ms. Neang Malyne and Mr. Jean-Philippe Venot
Natural Sciences	Sustainable Natural Resources Management	Ecosystem Services provided by Agriculture	Ms. Neang Malyne and Mr. Sok Kimchhin
Natural Sciences	Water management	Water governance for irrigation, clean water and local fisheries	Mr. Jeap-Philippe Venot, Mr. Phoeurk Raksmey and Ms. Neang Malyne
Others	Others	Food Safety (Pesticide residues and pesticide use), Medicinal plant	Mr. Gnoun Samnang and Ms. Neang Malyne
I.2. Domain and topics that are present in your department/research center/group but would need some actions to be made more active			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Management/Logistic	International relations, regulations and policies	Capacity Building	Ms. Yoeu Asikin and Ms. Malyne Neang
Others	Others	Value Chain Analysis	Ms. Yoeu Asikin, Mr. Sok Kimchin and Ms. Malyne Neang
Management/Logistic	Sustainable Natural Resources Management	E-learning development	Ms. Neang Malyne
I.3. Topics and/or domain your department/research center/group would like to develop, in future years, in accordance with its development strategy but that need new initiatives in order to develop the common ground			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Others	Sustainable Natural Resources Management	Food safety, agrarian transition and Ecosystem Services	Ms. Neang Malyne, Mr. Sok Kimchhin and Jean-Philippe Venot
Others	Water management	Water management (agriculture, clean water and fishery)	Ms. Neang Malyne, Mr. Sok Kimchhin and Jean-Philippe Venot
Management/Logistic	Sustainable Natural Resources Management	E-learning development	Ms. Neang Malyne
I.4. As the Project has been developed for almost two years, indicate the topics from other partners´ institutions that your department/research center/group has identified and in which it could be interested (Seeing in the Workshop, Mobility internships, Trainings Sessions…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Statistics and Research Methods	Sustainable Natural Resources Management	Ecosystem Approach and Machine Learning	UBB - AgroEco research gourp: Ms Chea Ratha and Mr. Seng Ratha
I.5. Small/marginal/individual topics that may not be perfectly visible at the collective level, but that can establish very motivated connection points for collaboration between individuals from different department/research center/group (like meeting by chance in a conference the only other person who works on your topic of predilection…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference

Co-funded by the Erasmus+ Programme of the European Union

RUA – Research Organization

Institution	Royal University of Agriculture
Department/Research Center/Group that completes the questionnaire	ECOLAND
Number of Researchers of the Department/Research Center/Group	4 PhD, 1 PhD student, 2 Msc, 1 Bsc and 2 volunteer (4th years) and 1 international research expert from IRD
II.1. Regarding to your department/research center/group previous international experience, how many joint researches have been done and what level reached the best joint research?	
Number of joint researches	Between 5 and 10
Level of the best joint research	We publish an academic paper in a middle impact review
Free text space	Only one choice, is not enough: we organized international and national conferences (not only Dockside) and we communicate to international conferences (congress).
II.2. Regarding to your department/research center/group previous international experience and joint researches, what were the main problems you had? (Order them according to the level of importance)	
1º Problem	Different research topics among the partners
2º Problem	Lack of incentives
3º Problem	Schedule
If you have answered "Others", please specify which (free text)	
II.3 What technological and academic resources to carry out a joint research has your department/research center/group?	
Access to private databases and international reviews (in topics and domain mentioned before in I.Research Topics)	Yes, but it is necessary to improve it
Access to video conference room	Yes, but it is necessary to improve it
Capacity to make field research	Yes
Software and hardware to analyze the data	Yes, but it is necessary to improve it
Research staff	Yes, but it is necessary to improve it
Specific funding	Yes, but it is necessary to improve it
Could you precise the most important lack of technological and/or academic resources for research, if any (free text)	We don't Master and PhD student to do research with us because they follow the Weekend class only , then they work during the week. The way we wish is to find 1 or 2 schoolarship every year in order to recuit our own Master and PhD students.
II.4. What could be the best way to organize a joint research among the partners? (Order them according to the level of importance)	
1º Best way	Others
2º Best way	Collaboration between one Cambodian university with one European university
3º Best way	Collaboration between one Cambodian university with all the European universities
If you have answered "Others", please specify which (free text)	Direct collaboration among one (few) Cambodian research center with one (few) European department
II.5. What main contribution to the joint research do you expect from the European partners (Cambodian partners)? (Order them according to the level of importance)	
1º Contribution	Theoretical Knowledge
2º Contribution	Methodological Knowledge
3º Contribution	Data provision
If you have answered "Others", please specify which (free text)	A participative research project design. Fine a good time to build the proposal TOGETHER. May be we should organize a one week proposal writing to make sure that all partners know and understand very well about what the project is about.
II.6. If you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch (by mail, skype, telephone…)?	
Period of time	Once each two weeks
Free text space	But it depends on the period/schedule of the project. Sometime we should exchange everyday sometime just once a month. I tend to say that it is flexible and correspond to the activities.
II.7. During the DOCKSIDE Stakeholders Analysis many stakeholders mentioned that certain cultural factors influence the performance of students. What cultural factors do you think could affect to the research activities?	
Free text space	1. Cambodian people ask really questions. They understand or not, no one can guest. When they are not happy with the project, they still say yes for everything but they will not do their job. When they don't understand, they will ask the concerning person but they wait to ask someone else whom they feel good with. When soemthing hard to do, they will not do it and they will not tell. 2. Western People are direct, sometime Cambodian get upset and they will not happy to do their jobs. Western work fast and sometime do all the jobs without knowledge transfer.
II.8. How do you think the DOCKSIDE project could improve the motivation and incentives to develop research projects among the partners?	
Free text space	All partenrs of Dockside was unclear about the incentive and the way that we manage the budget and the admin for EU take too much time. In the future, we should not make all partners busy when we implement one partner's WP. From my experiences is erveryone are busy for small thing. So we should find the way out but I don't know how.
II.9. Please, add any additional information you want to expose or any concern you have to face a research collaboration	
Free text space	I don't like to go for EU funding for the next project because the way to use budget are complicate and it doesn't help my center to pay for human resources. If all I have more project like this, it will drive me crazy.

Co-funded by the Erasmus+ Programme of the European Union

UBB – Research Topics

Institution name	University of Battambang	Instructions: Please, complete just the yellow cells and add many rows as necessary	
Department/Research Center/Group that completes the questionnaire	Scientific Committee		
Number of Researchers of the Department/Research Center/Group			
I.1. Domain and topics that are really active in your department/research center/group and their intersection			
Domain	General Topic	Further description of the topic	Persons of Reference
Others	Agriculture and Rural Development	Development and dissemination of sustainable production system based on invasive pest management of cassava in Vietnam, Cambodia and Thailand (SATREPS).	Dr. Pao Srean
Others	Others	Implementing quality of education & training of the young Universities in Cambodian rural area (UNICAM)	Dr. Pao Srean
Others	Climate Change	Maintaining productivity and income in Tonle Sap fishery in the face of climate change (TLSCC)	Dr. Pao Srean
I.2. Domain and topics that are present in your department/research center/group but would need some actions to be made more active			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Others	Agriculture and Rural Development	Development and dissemination of sustainable production system based on invasive pest management of cassava in Vietnam, Cambodia and Thailand (SATREPS).	Dr. Pao Srean
Others	Others	Implementing quality of education & training of the young Universities in Cambodian rural area (UNICAM)	Dr. Pao Srean
Others	Climate Change	Maintaining productivity and income in Tonle Sap fishery in the face of climate change (TLSCC)	Dr. Pao Srean
I.3. Topics and/or domain your department/research center/group would like to develop, in future years, in accordance with its development strategy but that need new initiatives in order to develop the common ground			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Applied Sciences	Fisheries	Using environmental DNA (eDNA) to study the life history of some important fish species in Tonle Sap Systems	Ms. UY Sokheang ,Dr. CHEA Ratha, Mr. SAY Pisey, Mr. CHHORN Matine
Natural Sciences	Sustainable Natural Resources Management	Ecological assessment of river health ecosystem using benthic diatoms	Mr. Chrea Socheat,Dr. Tudesque Loïc, Dr. Chea Ratha, Mr. Seang Sor
Finance/Economics	Agriculture and Rural Development	Innovative farming systems for improved nutrient and income in NW Cambodia (IFINI)	Dr. Srean Pao, Mr.TIth LONG, Mr.Sovanna SEAV, Mr. Sophary KHIN
Applied Sciences	Agriculture and Rural Development	Predicting the vulnerability of crop production to drought in the northwestern	Dr. Chan Bunyeth,Ms.REACH Sokuntheary, Ms.SUN Sreyneang, Dr.SENG Ratha
Natural Sciences	Climate Change	Functional response of fish community to environmental change	Dr. Chea Ratha, Ms. Uy Sokheang, Mr. Chrea Socheat, Prof. Sovan Lek, Prof. Gaël Grenouillet
Applied Sciences	Agriculture and Rural Development	Socio economic factors influencing crop productivity in NW region of Cambodia	Dr. Seng Ratha
Applied Sciences	Others	Green concrete: Concrete with materials as a partial or complete replacement for cement or fine or coarse aggregates	Mr. Lang Vothea,Mr Tauch Manit, Ms. Pho Sophea
Applied Sciences	Agriculture and Rural Development	Local Traditional Food Processing in NW Cambodia	Mr. Lim Seiha
Applied Sciences	Agriculture and Rural Development	Livestock farming systems in NW Cambodia	Ms. Ngoung Koemsean
Applied Sciences	Agriculture and Rural Development	Effect of improved farming technology on addressing socio-demographic and economic change in the NW region of Cambodia	Ms. Teng Channavy
I.4. As the Project has been developed for almost two years, indicate the topics from other partners´ institutions that your department/research center/group has identified and in which it could be interested (Seeing in the Workshop, Mobility internships, Trainings			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Finance/Economics	Agriculture and Rural Development		SDU, Nantes
Statistics and Research Methods	Agriculture and Rural Development		Vigo, SDU, Nantes
Applied Sciences	Sustainable Natural Resources Management		Nantes, Vigo, RUA
Law	International relations, regulations and policies		Vigo, RULE
Management/Logistic	Sustainable Natural Resources Management		Nantes, Vigo, SDU, NUM
I.5. Small/marginal/individual topics that may not be perfectly visible at the collective level, but that can establish very motivated connection points for collaboration between individuals from different department/research center/group (like meeting by chance in a conference the only other person who works on your topic of predilection…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference

Co-funded by the Erasmus+ Programme of the European Union

UBB – Research Organization

Institution	University of Battambang
Department/Research Center/Group that completes the questionnaire	Scientific Committee
Number of Researchers of the Department/Research Center/Group	
II.1. Regarding to your department/research center/group previous international experience, how many joint researches have been done and what level reached the best joint research?	
Number of joint researches	Between 5 and 10
Level of the best joint research	We have a communication in an international congress
II.2. Regarding to your department/research center/group previous international experience and joint researches, what were the main problems you had? (Order them according to the level of importance)	
1º Problem	Lack of incentives
2º Problem	Different research topics among the partners
3º Problem	Technological or equipment problems
If you have answered "Others", please specify which (free text)	Knowlegde Gap (Ex: Field of Study, H.R Limitation)
II.3 What technological and academic resources to carry out a joint research has your department/research center/group?	
Access to private databases and international reviews (in topics and domain mentioned before in I.Research Topics)	No
Access to video conference room	Yes
Capacity to make field research	Yes, but it is necessary to improve it
Software and hardware to analyze the data	Yes
Research staff	Yes
Specific funding	Yes, but it is necessary to improve it
Could you precise the most important lack of technological and/or academic resources for research, if any (free text)	
II.4. What could be the best way to organize a joint research among the partners? (Order them according to the level of importance)	
1º Best way	Joint collaboration between the 8 DOCKSIDE partners
2º Best way	Direct collaboration between one (or few) researcher/professor from different university (Cambodian or European)
3º Best way	Collaboration between one Cambodian university with all the European universities
If you have answered "Others", please specify which (free text)	
II.5. What main contribution to the joint research do you expect from the European partners (Cambodian partners)? (Order them according to the level of importance)	
1º Contribution	Technology and equipment
2º Contribution	Theoretical Knowledge
3º Contribution	Methodological Knowledge
If you have answered "Others", please specify which (free text)	
II.6. If you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch (by mail, skype, telephone…)?	
Period of time	More than once a week
II.7. During the DOCKSIDE Stakeholders Analysis many stakeholders mentioned that certain cultural factors influence the performance of students. What cultural factors do you think could affect to the research activities?	
Free text space	Incentive
II.8. How do you think the DOCKSIDE project could improve the motivation and incentives to develop research projects among the partners?	
Free text space	Select fulltime researchers from Cambodian partners (provide them same incentive as European researchers) to joint with EU partners
II.9. Please, add any additional information you want to expose or any concern you have to face a research collaboration	
Free text space	

Co-funded by the Erasmus+ Programme of the European Union

NUM – Research Topics

Institution name	National University of Management	Instructions: Please, complete just the yellow cells and add many rows as necessary	
Department/Research Center/Group that completes the questionnaire	School of Graduate Studies and Research Center		
Number of Researchers of the Department/Research Center/Group			
I.1. Domain and topics that are really active in your department/research center/group and their intersection			
Domain	General Topic	Further description of the topic	Persons of Reference
Finance/Economics	Others	Globalizaton, FDI, Exp. Imp. Public Finance, Baking System, Microfinances	Lecturers + PhD Students
Management/Logistic	Others	Entrepreneurship, Public Management Reform, Marketing, Human Resources Management	Lecturers + PhD Students
Law	International relations, regulations and policies	International Law, Constitutional Law, Company Law	Lecturers + PhD Students
Management/Logistic	Tourism	Ecotourism, Cambodian Tourism Sector, Cultural Tourism	Lecturers + PhD Students
I.2. Domain and topics that are present in your department/research center/group but would need some actions to be made more active			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Finance/Economics	Others	Globalization of Economics	Lecturers + PhD Students
Management/Logistic	Others	Public Management Reform, Good Governance	Lecturers + PhD Students
Law	International relations, regulations and policies	Key Success of Entrepreneurship, legal system in Cambodia	Lecturers + PhD Students
I.3. Topics and/or domain your department/research center/group would like to develop, in future years, in accordance with its development strategy but that need new initiatives in order to develop the common ground			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Management/Logistic	Sustainable Natural Resources Management	Biofuel for Helping Country Economic and Environment	Lecturers + PhD Students
Management/Logistic	Water management	Upper Mekong River and its impacts on living conditions, Urban water suppy of governance	Lecturers + PhD Students
Management/Logistic	Water management	Public Management Reform of water supply in Cambodia	Lecturers + PhD Students
I.4. As the Project has been developed for almost two years, indicate the topics from other partners´ institutions that your department/research center/group has identified and in which it could be interested (Seeing in the Workshop, Mobility internships, Trainings Sessions…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Finance/Economics	Sustainable Natural Resources Management	Ports and Shipping Management	Lecturers + PhD Students
Management/Logistic	Water management	Urban Water Supply Management	Lecturers + PhD Students
Management/Logistic	Sustainable Natural Resources Management	Mekong River and its impacts	Lecturers + PhD Students
I.5. Small/marginal/individual topics that may not be perfectly visible at the collective level, but that can establish very motivated connection points for collaboration between individuals from different department/research center/group (like meeting by chance in a conference the only other person who works on your topic of predilection…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Finance/Economics	International relations, regulations and policies	Maritime transport	Looking for supporting partners
Management/Logistic	Water management	Upper Mekong River ansd its impacts on living conditions, urban water supply management	Looking for supporting partners
Management/Logistic	Water management	Public Management Reform of water supply in Phnom Penh City	Looking for supporting partners

Co-funded by the Erasmus+ Programme of the European Union

NUM – Research Organization

Institution	National University of Management
Department/Research Center/Group that completes the questionnaire	School of Graduate Studies and Research Center
Number of Researchers of the Department/Research Center/Group	
II.1. Regarding to your department/research center/group previous international experience, how many joint researches have been done and what level reached the best joint research?	
Number of joint researches	Between 5 and 10
Level of the best joint research	We publish an academic paper in a middle impact review
Free text space	2 project reports (WB); 3 research papers; 2 articles
II.2. Regarding to your department/research center/group previous international experience and joint researches, what were the main problems you had? (Order them according to the level of importance)	
1º Problem	Lack of incentives
2º Problem	Technological or equipment problems
3º Problem	Others
If you have answered "Others", please specify which (free text)	Lack of specialization in environment and natural resources
II.3 What technological and academic resources to carry out a joint research has your department/research center/group?	
Access to private databases and international reviews (in topics and domain mentioned before in I.Research Topics)	No
Access to video conference room	
Capacity to make field research	
Software and hardware to analyze the data	No
Research staff	
Specific funding	
Could you precise the most important lack of technological and/or academic resources for research, if any (free text)	In general, there of all the resources and specifically is a lack of academic journals and software for data analysis
II.4. What could be the best way to organize a joint research among the partners? (Order them according to the level of importance)	
1º Best way	Others
2º Best way	
3º Best way	
If you have answered "Others", please specify which (free text)	1º Develop project ideas (research project); 2º specific funding support and access to academic resources; 3º Schedule for meeting and working
II.5. What main contribution to the joint research do you expect from the European partners (Cambodian partners)? (Order them according to the level of importance)	
1º Contribution	Theoretical Knowledge
2º Contribution	Methodological Knowledge
3º Contribution	Technology and equipment
If you have answered "Others", please specify which (free text)	Also a good collaboration between the partners
II.6. If you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch (by mail, skype, telephone…)?	
Period of time	Once a month
II.7. During the DOCKSIDE Stakeholders Analysis many stakeholders mentioned that certain cultural factors influence the performance of students. What cultural factors do you think could affect to the research activities?	
Free text space	Communication/Language
II.8. How do you think the DOCKSIDE project could improve the motivation and incentives to develop research projects among the partners?	
Free text space	Joint Master and PhD programs with full scholarship and providing internships
II.9. Please, add any additional information you want to expose or any concern you have to face a research collaboration	
Free text space	Incentive is priority because most of them focus on teaching and share a little time for doing research

Co-funded by the Erasmus+ Programme of the European Union

UVIGO Law- Research Topics

Institution name	University of Vigo	Instructions: Please, complete just the yellow cells and add many rows as necessary	
Department/Research Center/Group that completes the questionnaire	Research Group DMT (Commercial and Labour Law)		
Number of Researchers of the Department/Research Center/Group	10		
I.1. Domain and topics that are really active in your department/research center/group and their intersection			
Domain	General Topic	Further description of the topic	Persons of Reference
Law	Human Rights	The fundamental rights in the framework of the change of autonomous work in the digital age (research is funded by the Ministry of Economy and Competence)	Jaime Cabeza
Law	International relations, regulations and policies	Maritime legal studies (research is funded by Regional Government of Galicia (Spain) : This project consist in the analysis of decision making processes in scope of maritime-fishing and the study of the globalization effects in two specific fields. On the one hand, the impact on the access to maritime- fishing resources and, on the other hand, work at the sea. Academics devoted to Labour Law and Public and Private International Law are involved in topics such as sustainable development, new technologies, Blue Growth, marine genetic resources or the fundamental rights of sea workers.	Jaime Cabeza, Francisca Fernández Prol, Belén Fernández, Laura Movilla, Annina Burgin, Irene Dozo
I.2. Domain and topics that are present in your department/research center/group but would need some actions to be made more active			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Law	International relations, regulations and policies	Maritime Law, Environmental issues in maritime transport: insurance and contracts, Protection of intellectual property	Francisco Torres, Pablo Fernández
I.3. Topics and/or domain your department/research center/group would like to develop, in future years, in accordance with its development strategy but that need new initiatives in order to develop the common ground			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
I.4. As the Project has been developed for almost two years, indicate the topics from other partners´ institutions that your department/research center/group has identified and in which it could be interested (Seeing in the Workshop, Mobility internships, Trainings Sessions…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Law	International relations, regulations and policies	Labor Law and Commercial Law (maritime law)	HING Vandanet and DANY Chhoukroth (RULE)
I.5. Small/marginal/individual topics that may not be perfectly visible at the collective level, but that can establish very motivated connection points for collaboration between individuals from different department/research center/group (like meeting by chance in a conference the only other person who works on your topic of predilection…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Law	International relations, regulations and policies	Human rights and connection with Labour Law	Cambodian Center for Human Rights (RULE)

Co-funded by the Erasmus+ Programme of the European Union

UVIGO Law- Research Organization

Institution	University of Vigo
Department/Research Center/Group that completes the questionnaire	Research Group DMT (Commercial and Labour Law)
Number of Researchers of the Department/Research Center/Group	10
II.1. Regarding to your department/research center/group previous international experience, how many joint researches have been done and what level reached the best joint research?	
Number of joint researches	2
Level of the best joint research	We publish an academic paper in a middle impact review
II.2. Regarding to your department/research center/group previous international experience and joint researches, what were the main problems you had? (Order them according to the level of importance)	
1º Problem	Different research topics among the partners
2º Problem	Schedule
3º Problem	Lack of incentives
If you have answered "Others", please specify which (free text)	
II.3 What technological and academic resources to carry out a joint research has your department/research center/group?	
Access to private databases and international reviews (in topics and domain mentioned before in I.Research Topics)	Yes, but it is necessary to improve it
Access to video conference room	Yes
Capacity to make field research	Yes
Software and hardware to analyze the data	Yes
Research staff	Yes
Specific funding	Yes, but it is necessary to improve it
Could you precise the most important lack of technological and/or academic resources for research, if any (free text)	administrative support for all the procedures
II.4. What could be the best way to organize a joint research among the partners? (Order them according to the level of importance)	
1º Best way	Direct collaboration among one Cambodian research center with one European department
2º Best way	Direct collaboration between one (or few) researcher/professor from different university (Cambodian or European)
3º Best way	Collaboration between all the Cambodian universities with one European university
If you have answered "Others", please specify which (free text)	
II.5. What main contribution to the joint research do you expect from the European partners (Cambodian partners)? (Order them according to the level of importance)	
1º Contribution	Regional Knowledge
2º Contribution	Data provision
3º Contribution	Field research
If you have answered "Others", please specify which (free text)	
II.6. If you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch (by mail, skype, telephone…)?	
Period of time	Once each two weeks
II.7. During the DOCKSIDE Stakeholders Analysis many stakeholders mentioned that certain cultural factors influence the performance of students. What cultural factors do you think could affect to the research activities?	
Free text space	Maybe the perception of research schedule and compliance of deadlines is different among the countries
II.8. How do you think the DOCKSIDE project could improve the motivation and incentives to develop research projects among the partners?	
Free text space	Making these initiatives more visible and publicizing research activities
II.9. Please, add any additional information you want to expose or any concern you have to face a research collaboration	
Free text space	Our main concern is how to find researchers with high motivation in our fields of research

Co-funded by the Erasmus+ Programme of the European Union

UVIGO Economics - Research Topics

Institution name	University of Vigo		
Department/Research Center/Group that completes the questionnaire	Natural Resource and Environmental Economics Group (ERENEA)		Instructions: Please, complete just the yellow cells and add many rows as necessary
Number of Researchers of the Department/Research Center/Group	15		
I.1. Domain and topics that are really active in your department/research center/group and their intersection			
Domain	General Topic	Further description of the topic	Persons of Reference
Management/Logistic	Climate Change	Marine Social-Ecological Systems Resilience and Vulnerability: Identifying factors and measuring indicators for climate change in marine protected areas (fisheries climate change vulnerability assessment at regional level)	Elena Ojea, Elena Fontán
Management/Logistic	Fisheries	Small scale fisheries Adaptation and sustainability: drivers of transformation fisheries related livelihoods; equity and participation in fisheries management system	Elena Ojea, Xiaozi Liu
Management/Logistic	Sustainable Natural Resources Management	Conflict and cooperation of transboundary resources use: fish/energy trade with neighbor countries; local impacts and potential compensation mechanisms	Elena Ojea, Xiaozi Liu
Applied Sciences	Fisheries	Fishing Markets Analysis. Commercial Chains and Globalization; Fishermen and Stakeholders perceptions about Fisheries Policy and Markets	Lucy Amigo, Dolores Garza
Management/Logistic	Tourism	Typologies of Tourism and evaluation of tourism resources. Effects of tourism on the local economy. Sustainability in tourism: innovation and quality. Indicators and models	Carmen Padín (Göran Svensson)
Applied Sciences	Sustainable Natural Resources Management	Ports Activity. Development of common methodologies to improve and enhance estuaries areas harmonizing socio-economic activities with the environment protection	Juan Surís, Dolores Garza (F.G. Laxe)
I.2. Domain and topics that are present in your department/research center/group but would need some actions to be made more active			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
Applied Sciences	Fisheries	Governance in small-scale fisheries. Institutions, fishermen associations and Fisheries Policy	Manuel Varela, Dolores Garza, Iria García-Lorenzo
I.3. Topics and/or domain your department/research center/group would like to develop, in future years, in accordance with its development strategy but that need new initiatives in order to develop the common ground			
Domain	General Topic	Further description of the topic	Persons of Reference (if there is any)
I.4. As the Project has been developed for almost two years, indicate the topics from other partners´ institutions that your department/research center/group has identified and in which it could be interested (Seeing in the Workshop, Mobility internships, Trainings Sessions…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Applied Sciences	Fisheries	The Sustainable Livelihoods Approach and Co-management in fisheries; Marine and coastal area situation in Cambodia	SEAV Sovanna, SENG Ratha and SREAN Pao (UBB)
Management/Logistic	Sustainable Natural Resources Management	Ecosystems services and opportunity costs	NEANG Malyne (RUA)
Management/Logistic	Sustainable Natural Resources Management	Fisheries Management	Dewan Ashan (SDU)
I.5. Small/marginal/individual topics that may not be perfectly visible at the collective level, but that can establish very motivated connection points for collaboration between individuals from different department/research center/group (like meeting by chance in a conference the only other person who works on your topic of predilection…)			
Domain	General Topic	Further description of the topic	Institution and persons of Reference
Applied Sciences	Fisheries	Community fisheries	KAING Khim (Fisheries Administration)
Applied Sciences	Fisheries	Current approach the enhance freshwaters fisheries in Cambodia	Yumiko Kura (World Fish Center)

Co-funded by the Erasmus+ Programme of the European Union

UVIGO Economics - Research Organization

Institution	University of Vigo
Department/Research Center/Group that completes the questionnaire	Natural Resource and Environmental Economics Group (ERENEA)
Number of Researchers of the Department/Research Center/Group	15
II.1. Regarding to your department/research center/group previous international experience, how many joint researches have been done and what level reached the best joint research?	
Number of joint researches	4
Level of the best joint research	We publish an academic paper in a middle impact review
II.2. Regarding to your department/research center/group previous international experience and joint researches, what were the main problems you had? (Order them according to the level of importance)	
1º Problem	Different research topics among the partners
2º Problem	Others
3º Problem	
If you have answered "Others", please specify which (free text)	We did not face many problems
II.3 What technological and academic resources to carry out a joint research has your department/research center/group?	
Access to private databases and international reviews (in topics and domain mentioned before in I.Research Topics)	Yes
Access to video conference room	Yes
Capacity to make field research	Yes
Software and hardware to analyze the data	Yes, but it is necessary to improve it
Research staff	Yes
Specific funding	Yes, but it is necessary to improve it
Could you precise the most important lack of technological and/or academic resources for research, if any (free text)	
II.4. What could be the best way to organize a joint research among the partners? (Order them according to the level of importance)	
1º Best way	Direct collaboration between one (or few) researcher/professor from different university (Cambodian or European
2º Best way	Direct collaboration among one Cambodian research center with one European department
3º Best way	Collaboration between one Cambodian university with one European university
If you have answered "Others", please specify which (free text)	
II.5. What main contribution to the joint research do you expect from the European partners (Cambodian partners)? (Order them according to the level of importance)	
1º Contribution	Data provision
2º Contribution	Regional Knowledge
3º Contribution	Field research
If you have answered "Others", please specify which (free text)	
II.6. If you are doing a joint research among other DOCKSIDE partner or partners, how often do you think you should keep in touch (by mail, skype, telephone…)?	
Period of time	Once a month
II.7. During the DOCKSIDE Stakeholders Analysis many stakeholders mentioned that certain cultural factors influence the performance of students. What cultural factors do you think could affect to the research activities?	
Free text space	Probably, if there is a lack of initiative or creativity it could be difficult to do new researches
II.8. How do you think the DOCKSIDE project could improve the motivation and incentives to develop research projects among the partners?	
Free text space	Carrying out seminaries about how to research and be more creativity. Doing brainstorming among the partners
II.9. Please, add any additional information you want to expose or any concern you have to face a research collaboration	
Free text space	

Co-funded by the Erasmus+ Programme of the European Union

Annex II. Program of the DOCKSIDE Summer School in 2018

Transboundary River Ecosystem Management
University of Battambang
Cambodia
1st – 5th October 2018

Day 1: 1st October 2018

07:30 – 09:00		Registration
09:00 – 09:15	15’	Opening remarks *H.E Sieng Emtotim,* Rector of UBB “Welcoming remarks” *Prof. Thomas Vallée,* Coordinator of DOCKSIDE project; “Supporting remarks” *Dr. Sam Or Angkearoat, Representative of General Directorate of Higher Education,* “Congratulatory remarks” *H.E. Yuok Ngoy*, Secretary of State, MoEYS “Opening remarks” Photo Session
Keynote Session **Moderator: Dr. Srean Pao**		
09:15 – 09:45	30’	*Prof. Thomas Vallée (UN) and Prof. Murat Yildizoglu (UB)* “Computational Modeling of Natural Resources and Maritime Issues “
09:45 – 09:55	10’	*Q&A*
09:55 – 10:25	30’	*Dr. Dewan Ahsan, Prof. Niels Vestergaard (SDU) and Dr. Odile Delfour-Samama (UN)* “Risk Management Approaches Towards Transboundary Water Resources Management”
10:25 – 10:35	10’	*Q&A*
10:35 – 10:45	10’	*Coffee Break*
10:45 –11:15	30’	*Dr. Seng Ratha, Dr Chea Ratha (UBB) and Dr. Neang Malyne (RUA)* *“Sustainability of Natural Resources: The Case of the Tonle Sap ”*
11:15 – 11:25	10’	*Q&A*
11:25 – 11:55	30’	*Dr. Laura Movilla and Dr. Elena Ojea (UVIGO)* “Transboundary Resources Management”
11:55 – 12:05	10’	*Q&A*
Lunch		
Research Discussion Session **Moderator: Dr. Dewan Ahsan**		
13:30 – 15:00	90’	Research Topics *Summer School Participants*
15:00 – 15:20	20’	*Coffee Break*
15:20 – 16:30	70’	Strategy Plan for Research *Summer School Participants*
16:30 – 17:00	60’	**Work Group Registration**
Dinner		

Day 2, 3 and 4: 2nd – 4th October 2018

Group Work Session		
08:15 – 11:30	-	*Morning Session*
Lunch		
13:45 – 17:00	-	*Afternoon Session*
Dinner		

Day 5: 5th October 2018

Groups Presentation Session		
08:00 – 08:30	30'	*Workshop 1 Presentation*
08:30 – 08:45	15'	*Q&A*
08:45 –09:15	30'	*Workshop 2 Presentation*
09:15 –09:30	15'	*Q&A*
09:30 – 10:00	30'	*Workshop 3 Presentation*
10:00 –10:15	15'	*Q&A*
10:15 – 10:45	30'	*Coffee Break*
10:45 – 11:15	30'	*Workshop 4 Presentation*
11:15 – 11:30	15'	*Q&A*
11:30 – 12:00	30'	*Certificate Ceremony and Closing remark by H.E. Sieng Emtotim, Rector of UBB*
Lunch		

* Abbreviations:

MoEYS	Ministry of Education Youth and Sport, Cambodia
NUM	National University of Management, Cambodia
RUA	Royal University of Agriculture, Cambodia
RULE	Royal University of Law and Economics, Cambodia
SDU	Southern Denmark University, Denmark
UBB	University of Battambang, Cambodia
UN	University of Nantes, France
UB	University of Bordeaux, France
VIGO	University of Vigo, Spain

Annex III. Program of the Plenary Sessions at the ASEAN Water Platform 2019

Co-funded by the Erasmus+ Programme of the European Union

Summer School: ASEAN Water Platform 2019

WATER AND ITS MANY ISSUES. METHODS AND CROSS-CUTTING ANALYSIS (2)

5th - 13th July 2019
National University of Management
Phnom Penh, Cambodia

Short Description

This year summer school is organized jointly between two Erasmus+ Capacity-building projects coordinated by University of Nantes, named DOCKSIDE and WANASEA.

The first goal of WANASEA ASEAN Water Platform (AWP) is to build capacity in research on water natural resource management (WNRM) within the partner countries' institutions, by means of gathering researchers from different backgrounds for multidisciplinary methodological approaches related to the analysis of WNRM sector. The second objective is to disseminate knowledge on WNRM and enhance collaboration between the participants. The platform must be able to increase the research collaboration between participants and to set the basis future long-term partnership between the representatives of different institutions in EU and in ASEAN. Then, the institutions partners must be able to set up and run projects of bigger international scale.

Meanwhile, DOCKSIDE Summer School objectives are to increase the students' and researchers' knowledge and to enable connectedness between them as well as to expand the Environmental Maritime Research (EMR) network, and to increase scientific collaboration.

There is participation of more than 100 Asian young researchers and Europeans visiting scholars. In addition, a number of places will be given to candidates outside WANASEA and DOCKSIDE consortium, mainly from Vietnam, Laos and Myanmar, thanks to co-fundings from AUF, IRD and University of Nantes.

The summer school relies on the following working principles:

- Transfer of methodological tools;
- Multidisciplinary approaches (social sciences, sciences);
- Good balance between theories and practical work;
- Interactivity among participants;
- Disseminate knowledge;
- Build a collaborative network (academic and non-academic);
- Intercultural exchanges.

Co-funded by the Erasmus+ Programme of the European Union

AWP 2019 - Programme of Plenary Sessions

Date	Time	Topic	Speaker	Position
5th July 2019	7:30 - 8:30	Registration		
	8:30 - 8:45	Welcome Remarks	H.E. Dr. HOR Peng	Rector of NUM
	8:45 - 9:00	Opening Remarks	H.E. Yok Ngoy	Secretary of State of MoEYS
	9:00 - 9:15	Opening Remarks	*To be confirmed*	EU Delegation
	9:15 - 9:30	Opening Remarks	Thomas Vallée	French Embassy
	9:30 - 9:45	Opening Remarks	Lionel Lemiale	Nantes University
	9:45 - 10:00	AWP 2018 - "Feedback from Trainees and Trainers", WANASEA/IRD Video Clip		
	10:00 - 10:15	Photos Session		
	10:15 - 10:45	*Coffee Break*		
	10:45 - 12:15	What Role for a Development Bank in the Improvement of the Urban Water Supply and Sanitation Services? The Case of AFD in ASEAN	Borin Pin	AFD
	12:15 - 14:00	*Lunch*		
	14:00 - 15:30	Using Simulations to Design Evacuation Strategies in Case of Flooding	Alexis Drogoul, Kevin Chapuis	IRD
	15:30 - 15:45	*Coffee Break*		
	15:45 - 17:15	Knowing and Governing Water	Pierre-Yves Le Meur	Anthropologist, IRD-GRED
6th July 2019	8:00 - 9:00	Registration		
	9:00 - 9: 40	Restitution of Research Programs: Valuation of ecosystem services of mangrove forests in Cambodia	Sophak Pok	RUA
			Pierre-Alexandre Mahieu	UN
	9:40 – 10:20	Restitution of Research Programs: Equitable, reasonable and sustainable use of water resources in Cambodia	Laura Movilla	UVIGO
	10:20 – 10:40	*Coffee Break*		
	10:40 - 11:20	Restitution of Research Programs: Inland commercial fishing lot and mobile gear fishing in Tonle Sap Lake: an assessment of fisheries and fish community structure	Bunyeth Chan	UBB
	11:20 – 12:00	Restitution of Research Programs: Evaluating the success and sustainability of community fisheries in Tonle Sap Lake after fisheries reforms	Ratha Seng	UBB
	12:00 - 14:00	*Lunch*		
	14:00 -15:30	Knowledge and Development: From Principles to Practice	Benjamin Buclet	CREED
		Coffee Break (end of session)		

Annex IV. Program of the Dissemination Conference

Co-funded by the Erasmus+ Programme of the European Union

DOCKSIDE Project

Dissemination Conference
5 – 6 September 2019
Phnom Penh, Cambodia
Venue : MOEYS

Thursday, 5th September 2019: Summary and Evaluation

Time		Speaker
8:45 – 9:00	Opening remarks	Ministry representative
9:00 – 9 :30	General presentation of Dockside Genesis of dockside, objectives, Work package presentation… Idea : Dockside' main activities can be summarized into 3 components • Networking and mapping • Program development for research studies • Training	UN + RULE
9 :30 – 10 : 15	<u>Networking</u> • Mapping report presentation ○ Méthodology, objectives, usefulness, outcome during the project • Website and EMR platform Discussion with audience	Sokunthy Ly, Thomas Vallée
10 :15 – 10 :45	*Coffee break*	
10 : 45 – 11 :45	<u>Program development for research studies</u> • Méthodology (visit in EU and Cambodia), Résults (catalogue course report presentation) Outcome • Equipment investment to strenghen research and training Discussion with audience	RUA (Chay Chim ?), VIGO (Jaime Cabeza)
11:45 – 13:00	*Lunch*	
13 :00 – 13 :45	<u>Training</u> Objectives, results, and how? • Presentation of Training session, summer school, EMR conference • Mobility review • Innovative methods for teaching Discussion with audience	Laurent Mesmann
13 :45 – 14 :30	Ministry's Review : Structural Project Quality Research Restructuration Official Documents Discussion with audience	MoEYS
	Closing	

Co-funded by the Erasmus+ Programme of the European Union

Friday 6th September 2019: Dissemination and Sustainability

Time		Speaker
08 :30 – 9 :15	Research strategy: 1 Year Progress after Summer School Battambang Objectives and summary of each research topic Discussion with audience	VIGO (Francesco Torres) SDU (Dewan Ahsan)
9 :15 – 10 :00	HEI discussion How Dockside project has been integrated into your institution?	RUA UBB RULE NUM (Sokunty Ly, Dr. Sovannara Kang)
	Coffee Break	
10 :30 – 11 :15	HEI discussion (cont')	RUA UBB RULE NUM
11 :15 – 11 : 45	Supporting policy reform on doctoral School Next Steps to support the reform in Cambodia	MOEYS
11 : 45 – 12 : 00	Closing remarks	UN and MoEYS
12 : 00 – 14 : 00	*Lunch*	