

HWCA - Strengthening Higher Education in the Water Sector for Climate Resilience and Security in Central Asia

Erasmus+ CAPACITY BUILDING IN HIGHER EDUCATION project

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SUSTAINABILITY ROAD MAP

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1. Foreword

One of the primary objectives of HWCA is to ensure the dissemination and sustainability of the project results, as well as to raise public awareness through active networking among HEIs and stakeholders in the CA region. The aim is to foster a stimulating environment for obtaining new knowledge and skills and the exchange of experiences in water governance and water diplomacy beyond the project life cycle. This document was considered at the Steering Committee meeting and PMB meeting, and approved in the 17th of May, 2024. The road map was designed to serve as a guideline for organizing and implementing sustainability activities within the Erasmus+ Project HWCA.

2. Project summary

Climate change hits the water sector of Central Asia particularly hard: per capita water availability may reach water scarcity levels of less than 1,000 m3 per person by 2040. A better managed water sector could play a crucial role in the sustainable and green recovery of the region. It could provide a solid basis for economic growth, prosperity and the reduction of social, economic and environmental inequalities. Building human capacity is the first, indispensable step towards achieving economic and environmental sustainability of the water sector in CA.

The main objective of the HWCA project is to modernize existing or design new curricula of Central Asia HEIs and strengthen the competences, skills and employability of their students, increase the quality of curricula content, faculty members, research, innovation and international cooperation towards achieving economic and environmental sustainability of the water sector, increasing the employability of and open up attractive career opportunities for graduates. Through its focus on structural change (new curriculum elements and strengthened capacities) the project will have impact after the project end date.

3. Main objectives

The project aims to:

- increase the capacities of HEIs, state bodies in charge of water sectors of the CA countries, particularly in terms of water governance and water diplomacy, by increasing the relevance, quality and responsiveness of MA/MSc curricula to the issues raised when governing and using the water recourses;
- revise existing curricula or develop new curricula in two specializations: water governance and water diplomacy, start of the
 accreditation process of new MA/MSc courses, update selection criteria for students based on the review of the curricula and
 needs assessment;
- improve the quality of higher education in the CA countries and increase its importance for the labour market and the society, as well as the visibility and competitiveness of the universities' research, innovation and international cooperation activities;
- train a new generation of experts, prepared to tackle the challenges faced by the water sector.

4. Expected outcomes with impact beyond the project end date:

- Revised curricula or developed curricula in two specializations: water governance and water diplomacy, start of the accreditation process of new MA/MSc courses, selection criteria for students updated and agreed;
- Upgraded skills of teaching staff at the Central Asian HEIs on substantive topics of water governance and water diplomacy and English language proficiency;
- Developed a regional programme for continuous professional development and research (water resources management and water diplomacy) to strengthen sustainability;
- Signed MoU-s among Central Asian universities on enhancing mobility of faculty and students studying the updated or newly developed curricula, agreements between EU universities and CA partner universities on enhancing mobility of faculty and student;
- Set up QA mechanisms in the CA partner universities to ensure the quality of MA/MSc courses and ongoing improvement of the HR capacity of the HEIs and state bodies in water governance and water diplomacy for further sustainable development of the water sector in the CA region;
- Increased mobility and the development of a regional programme for continuous training and research support in water governance and water diplomacy;

• Raised awareness of CA HEIs, state bodies responsible for water sectors in C A, and the other stakeholders about the importance of HR development in water governance and water diplomacy to tackle the challenges faced by the water sector.

5. Expected outputs at the end of the project as basis for sustainable impact

At the end of the project the project expects to achieve the following results:

A) Qualitative results:

- Needs assessment of the CA partner universities and stakeholders;
- Revised curricula or developed curricula in two specializations: water governance and water diplomacy, updated selection criteria for students;
- A regional programme for continuous training and research support in water governance and water diplomacy;
- Office equipment and software installed at target universities for teaching and learning purposes;
- Signed partnership agreements, MoU between CA partner universities, between EU and CA universities on mobility, research and innovation, continues capacity building in water governance and water diplomacy.

B) Quantitative results:

- 11 CA partner universities provided with the relevant equipment;
- The qualification of 40 teachers upgraded through the combination of training at EU partner universities and continued training at individual universities and at the regional level, with a certificate issued to participants
- English language skills of 120 teachers improved;
- Central Asian universities had capability to enroll up to 500 MA/MSc students to the new courses within two years (or following the completion of the accreditation process);
- English language learning opportunities provided for 500 students;
- 6 offers per academic year the EU partner universities provided for mobility to CA partner HEIs teaching staff and graduate students within the MoU;

6. Main principles

Stakeholder Engagement: Regular interaction with the CA partner universities, state bodies responsible for the water sector, higher education governing bodies, competent authorities of CA, and other stakeholders can ensure project support and sustainability.

Continuous Learning and Development: Enhancing the capacity of higher education institutions through continuous learning and development can ensure long-term sustainability.

Monitoring and Evaluation: Regular assessment and monitoring of project outcomes can help identify issues and opportunities for improvement, as well as support its sustainability.

Collaboration and Partnership: The development of strong partnerships and collaborations with various institutions can help in supporting and sustaining the project.

Transparency and Openness: Ensuring transparency in management and financial reporting, dissemination and sharing the information of the project outputs and outcomes can help gain stakeholder trust and support project sustainability.

Fostering an Environment for Experience Exchange: Stimulating the exchange of experiences and ideas among project participants and beyond can help strengthen project sustainability and impact.

Use of Technology: Utilizing digital technologies for information dissemination, education, and communication can help ensure project sustainability.

Establishing a Support Network: Organizing a support network among project participants and other stakeholders can help maintain engagement and ensure project continuity even after its completion.

7. Main activities

#	Name of action	Estimated results	Estimated End Date	Lead BEN	Guidelines
1	WP1 – Assessment of existing curricula, needs assessment, planning of activities	 Study on existing curricula and needs finalized Information on present curricula, capacities and needs submitted reviewed. 	6 months 10/2023	DA MFA KR EU partner HEIs	Recommendations for upgrading and introducing innovative elements in present curricula or designing new, innovative curricula in the context of needs assessment will be provided to the CA partner universities.
		The list of gaps with recommendations to improve training programmes/courses/micro credentials in water governance and water diplomacy	36 months	CA partner HEIs	The CA partner universities will use the best approaches and methodologies of EU universities in needs assessment and curricula review to identify the gaps in curricula, teaching methods, QA management to support the relevance, quality, modernization and responsiveness of MA/MSc curricula on water governance and water diplomacy offered by HEIs of Central Asian countries.
		Self-assessment report Skills development programme for teachers Capacity building programme for the water sector stakeholders	2026-2030	CA partner HEIs	CA universities will practice the gained skills and approaches in needs assessment and curricula review while conducting self-assessment of MA/MSs courses to start accreditation; designing teachers' skills development courses, and capacity building of the CA water sector stakeholders.
2	WP2 – Updating existing curricula or development of new curricula in two specializations: water governance and water diplomacy, start of the accreditation process of new MA/MSc courses, selection criteria for students agreed	- Updated or new curricula finalized - Teaching of updated curricula and accreditation - CA universities strategic plans on regular revision and development MA/MSs courses (curricula) for water sector	24 months	DA MFA KR EU partner HEIs CA partner HEIs	The expert groups will complete updating existing or developing new curricula. Updated or new curricula will be approved by implementing and cooperating partners. Students' selection criteria will be updated and approved in the CA partner universities. Curricula and other relevant materials will be uploaded on project website. Curricula and other relevant materials will include the aim of the courses, connection with other courses, learning outcomes (the competences to be developed) syllabus of courses, textbooks, background materials, methodology, modules and quality control in English finalized and circulated among teaching staff and experts of implementing and cooperating partners and knowledge institutions.

	Estimated results	Estimated End Date	Lead BEN	Guidelines
				CA universities will start teaching updated curricula and (if necessary) submit documentation for the accreditation of new curricula in line with each CA country legislation
				Report on the start of teaching updated curricula and accreditation processes of new curricula will be presented to coordinator and uploaded on project website, and disseminated among the stakeholders
				The programme of the continues capacity building in water governance and water diplomacy will include recommendations proposed by the expert groups on curricula review and needs assessment
	- The materials from workshops for CA	2024-2030	DA MFA KR EU partner HEIs	The materials from workshops for CA universities, the state authorities in charge should be published and made accessible for all interested stakeholders.
	- The strategic plan of CA universities	2025-2030	CA partner HEIs	The strategic plan of CA universities will be aimed at regular updating and development of MA/MSs courses in water governance and water diplomacy with the set of QA indicators
-1	- Recommendations to update accreditation requirements	2026-2030	CA partner HEIs	Recommendations to the Ministries of Education and accreditation agencies will be provided to update accreditation requirements
	- Microcredentials on water governance and water diplomacy revised or developed	2026-2030	CA partner HEIs	The microcredentials will be offered to the water sector representatives (state bodies, enterprises, local authorities) based on the needs assessment and the review of the existing curricula
WP3 – Upgrading faculty skills and teaching methods	 Training course on water governance successfully completed Training course on water diplomacy successfully completed 40 teachers upgraded their skills in designing a modernized curricula 	24 months	IHE- DELFT DA MFA KR	IHE-DELFT as lead agency will organize a two- week training course on water governance for 18 participants in Delft. Instructors from CUB, URCA, UB and DKU as well as heads of Central Asian expert groups deliver lectures. IHE-DELFT will define selection criteria for participation in the training course, approve a list of candidates, prepare the programme, training materials, and a report on learning outcomes (competences acquired). DA MFA KR will organize a two-week training course on
	faculty skills and	- The strategic plan of CA universities - Recommendations to update accreditation requirements - Microcredentials on water governance and water diplomacy revised or developed - Training course on water governance successfully completed - Training course on water diplomacy successfully completed	- The strategic plan of CA universities 2025-2030 - Recommendations to update accreditation requirements - Microcredentials on water governance and water diplomacy revised or developed - Training course on water governance successfully completed - Training course on water diplomacy completed - Training course on water diplomacy successfully completed - 40 teachers upgraded their skills in designing a modernized curricula	- The strategic plan of CA universities 2025-2030 CA partner HEIs - Recommendations to update accreditation requirements - Microcredentials on water governance and water diplomacy revised or developed - Training course on water governance successfully completed - Training course on water diplomacy completed - Training course on water diplomacy skills and teaching methods - Training course on water diplomacy successfully completed - 40 teachers upgraded their skills in designing a modernized curricula

#	Name of action	Estimated results	Estimated End Date	Lead BEN	Guidelines
					from IHE-DELFT, DKU, URCA, DA MFA KR and UB as well as heads of Central Asian expert groups will deliver lectures.
4	WP4 - Upgrading proficiency in English for faculty and students	Courses for raising the English language proficiency of faculty and students completed Programme of the training, training materials, learning outcomes, list of participants, report on the training Glossary on the water governance and water diplomacy	32 months	UB CA HEIs	UB will organize specialized courses for faculty (up to120 persons) of the 12 Central Asian partner HEIs conducted by selected instructors engaged on an individual basis. UB will select participants, prepare the programme and teaching materials and a report on learning outcomes (the competences developed). Recommendations will be provided on Glossary on the water governance and water diplomacy The CA universities will be recommended to conduct English courses for the stakeholders of the water sector on the regular basis
5	WP5 Development of a regional programme for continuous professional development and research (water resources management and water diplomacy) to strengthen sustainability	The programme on continuous training and research is established at DKU in Almaty in the form of E-Platform Mobility schemes with the participation of European universities for participants of the regional program developed The concept and implementation plan of a regional programme for continuous professional development and research in the form of E-Platform adopted MoU on the cooperation in the framework of the programme signed between CA partners universities 6 offers from the EU partner universities per academic year uploaded to the project website Teaching staff and MA and PHD students as well as young researchers of the 12 CA HEIs provided by the	32-36 months	DKU EU partner HEIs	DKU will develop the programme on continuous training and research in the form of E-Platform on water governance and water diplomacy DKU developed and provided the online Seminar series on Academic writing in the frame of Water resource management and Water Diplomacy for Young Researchers of CA Partner Universities with involvement of External expert DKU will ensure participation of the CA HEIs in the programme. (E-Platform) All relevant materials (selection criteria, aim, program, background materials, administrative and financial conditions) will uploaded to the E-Platform and the project websites. A meeting of experts of IHE-DELFT, CUB, UB and URCA as well as the 12 CA partner HEIs at DKU in the online format will be arranged to develop and adopt the concept and implementation plan for the programme (E-Platform) on continuous training and research on water governance and water diplomacy

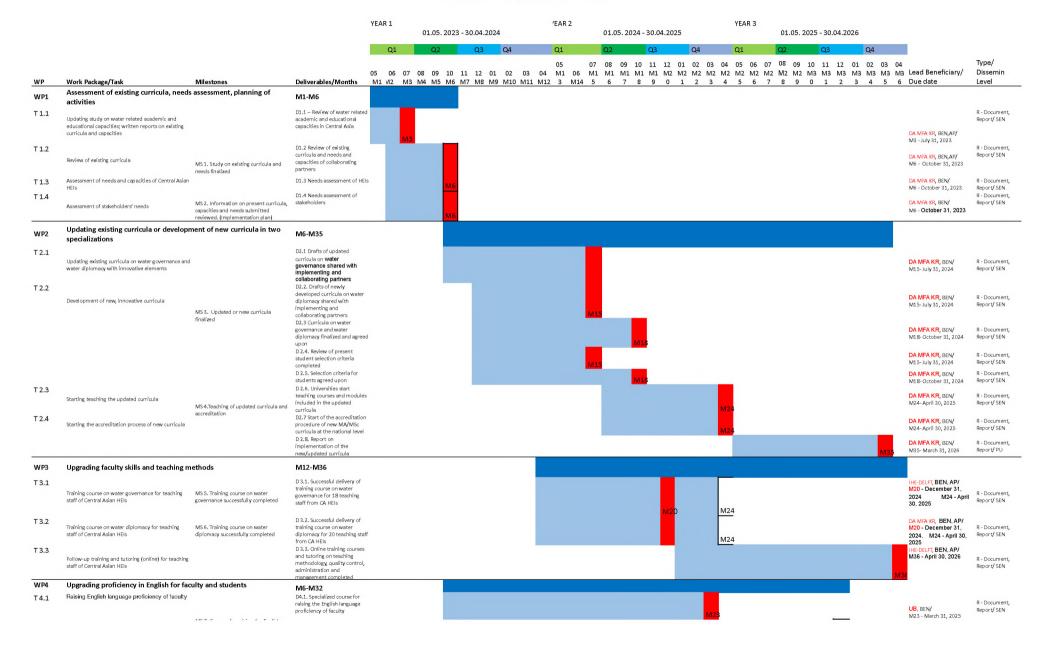
#	Name of action	Estimated results	Estimated End Date	Lead BEN	Guidelines
		research offers from the EU partner universities to expand research cooperation and exchanges with special emphasis on participation in research on water governance and water diplomacy The research opportunities are uploaded to the E-Platform and project website			MoU on the cooperation in the framework of the programme will be signed between CA partners universities and EU universities Participants of the above meeting consult with stakeholders (government agencies, the academic community and representatives of the water sector (government, collective and private) on their needs and possible support to the program. Comments and needs formulated by stakeholders will be integrated into the documents of the regional program. One-week continuous professional development courses will be offered to CA universities as well as regional training programs at DKU in Almaty to at least one teaching staff or PhD student of each CA university, altogether 12 persons/academic year The regional programs will include special training on methodology, quality control and administrative and technical issues. Implementing and associated partner HEIs (CUB, IHE-DELFT, UB and UR) will offer enhanced opportunities for mobility to teaching staff and graduate students of partner HEIs participating in the regional programme for continuous professional development and research. At least 6 offers per academic year will be uploaded to the project website Implementing HEIs (IHE-DELFT, UB, URCA, DKU) and associated partner (CUB) will invite teaching staff and graduate students of the 12 CA HEIs to expand research cooperation and exchanges with special emphasis on participation in research on water governance and water diplomacy. Research opportunities will be uploaded to the project website.
		The mobility programme of the CA and EU partner HEIs for teachers, researchers and PhD students are in practice	2026-2030	DKU EU partner HEIs	DKU will implement the programme on continuous training and research jointly the CA partner HEIs

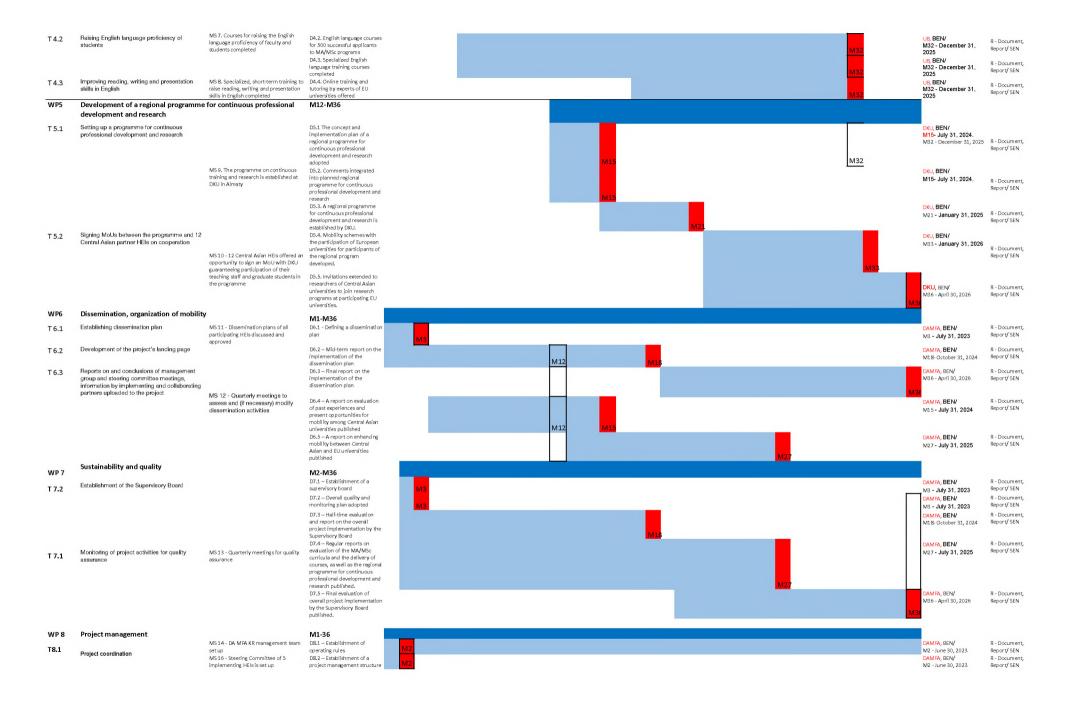
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		Digital badge awarded to the participants Learning outcomes recognized in the CA HEIS Date base of the experts/trainers Date base of the certified participants of the regional programme (E-Platfom) Date base of the researchers		CA partner HEIs	Learning Management System (LMS) of the programme on continuous training and research jointly the CA partner HEIs will be created and implemented by DKU The CA partner jointly will develop Practical Guide for students/teachers and researchers and toolkits for the possibility of use/adaptation The other CA HEIs and water sector stakeholders will have access to the LMS to upgrade their skills on the regular basis
	WP 6 Dissemination organization of mobility	Dissemination plans of all participating HEIs discussed and approved Quarterly meetings to assess and (if necessary) modify dissemination activities Mid-term and final report on the implementation of the dissemination plan A report on enhancing mobility between Central Asian and EU universities published Final project conference	3-36 months	DA MFA EU partner HEIs CA partner HEIs	Strict adherence to the dissemination plan (midterm, final reports) Monitoring and evaluation of dissemination activities and organizing quarterly meetings Continuing to document and share the lessons learned, best practices, and success stories from the project. This will contribute to the ongoing learning and improvement of the project's activities and outcomes. Reports and conclusions of meetings uploaded to the project website. Regularly updating and maintaining the relevancy of information on the website Dissemination of informational materials through effective channels, including social networks and other digital tools. Conducting a final conference in a hybrid format to attract as many stakeholders as possible. The project management team with the participation of all participating HEIs to assess, modify and steer dissemination work.

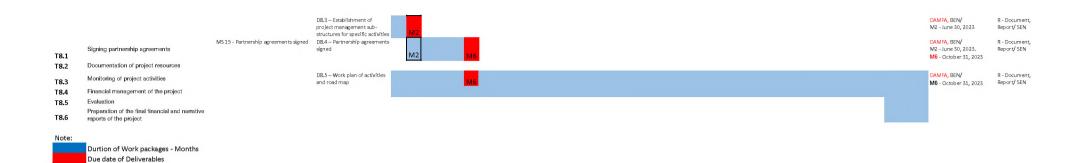
#	Name of action	Estimated results	Estimated End Date	Lead BEN	Guidelines
			2024-2030	DA MFA CA partner HEIs	Carrying out advocacy activities to influence the policies, practices, and attitudes of key stakeholders in water sector and higher education. This could include lobbying integration of the MA/MSs courses and microcredentials into the other relevant training programmes in water sector, public awareness campaigns, or research and publications.
			2024-2030	DA MFA CA partner HEIs	Communication and Engagement: Maintaining open and regular communication with all stakeholders, including university staff, government officials, project participants, and the wider public. This will ensure that they stay informed, engaged, and supportive of the project's sustainability efforts Partnerships and Alliances: Establishing or deepening partnerships with other universities, government bodies, NGOs, businesses, or international organizations that share the project's objectives. These partnerships can provide additional resources, expertise, and support to sustain the project's outcomes
	WP 7 Sustainability and quality	Overall quality and monitoring plan adopted Mid-term evaluation and report on the overall project implementation by the Supervisory Board Regular reports on evaluation of the MA/MSc curricula and the delivery of courses, as well as the regional programme for continuous professional development and research published. Final evaluation of overall project implementation by the Supervisory Board published.	2-36 months	DA MFA EU partner HEIs CA partner HEIs	Regular online meetings to coordinate the project activities and discuss the progress of implementation of relevant WPs in order to assure the quality of each WP. Participating HEIs review and adopt overall quality and monitoring plan prepared by the independent quality control agency and approved by the PMB The Supervisory Board evaluates: overall project implementation approves or suggests modifications in the implementation plan the quality of curricula and program delivery implementation of the continuous training and research by DKU The final report is uploaded to the project website in English Reports prepared by implementing HEIs and the independent quality control agency. Minutes and conclusions of meetings of the Supervisory Board.

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				The Supervisory Board at its final meeting in Budapest evaluates overall project implementation and adopts a final report on the project. The final report is uploaded to the project website in English. Report on the implementation of the new/updated curricula
	Sustainability plan of each CA partner HEI developed and approved	2024-2030	CA partner HEIs	Each CA partner HEI developed and approved Sustainability plan based on the lessons learnt and recommendations of the monitoring and evaluation activities of the SB Tracking changes in legislation in education and water sector and adapting MA/MSs curricula/ courses/microcredentials accordingly. Regularly evaluating the progress and impact of the Road map to ensure its relevance and effectiveness, and making necessary improvements as needed.
	QA plan of each CA partner HEI developed and approved	2024-2030	CA partner HEIs	Each CA partner HEI developed and approved QA plan based on the lessons learnt and recommendations of the QA monitoring and evaluation activities Internal and external evaluation of the execution of operational and strategic plans/road map of the CA partner HEIs Incorporating changes in regulations into guides and training programs.
VP 8 Project management	DA MFA KR management team set up Partnership agreements signed Steering Committee of 5 implementing HEIs is set up Regular meetings (online) of SC and PMB Work plan of activities and road map Monitoring report Financial and technical report	1-36 months	DA MFA KR EU partner HEIs CA partner HEIs	The DA MFA KR management team is composed of staff with relevant (substantive, legal, financial, quality assurance, IT, communication) expertise and starts operation The DA MFA KR management team negotiates and signs partnership agreements with partner universities Steering Committee composed of the team leaders of the five EU implementing HEIs set up and starts operation The DA MFA KR creates and maintains document repository and archiving of project resources, project documents The DA MFA coordinates project activities with all partners, contractors and relevant stakeholders, among others with
	VP 8	Sustainability plan of each CA partner HEI developed and approved QA plan of each CA partner HEI developed and approved DA MFA KR management team set up Partnership agreements signed Steering Committee of 5 implementing HEIs is set up Regular meetings (online) of SC and PMB Work plan of activities and road map Monitoring report	Sustainability plan of each CA partner HEI developed and approved QA plan of each CA partner HEI developed and approved 2024-2030 DA MFA KR management team set up Partnership agreements signed Steering Committee of 5 implementing HEIs is set up Regular meetings (online) of SC and PMB Work plan of activities and road map Monitoring report	Sustainability plan of each CA partner HEI developed and approved QA plan of each CA partner HEI developed and approved QA plan of each CA partner HEI developed and approved CA partner HEIs DA MFA KR management team set up Partnership agreements signed Steering Committee of 5 implementing HEIs is set up Regular meetings (online) of SC and PMB Work plan of activities and road map Monitoring report CA partner HEIs CA partner HEIs

#	Name of action	Estimated results	Estimated End Date	Lead BEN	Guidelines
					monthly online meetings with coordinators of each WP and team leaders of implementing partners (IHE-DELFT, DKU, UB, UR)







Due date of Milestones Implementation of WP Tasks