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External Project Evaluation Mid-term Report

Development of Master Curricula
in Ecological Monitoring and
Aquatic Bioassessment for
Western Balkans HEIs – ECOBIAS



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List of acronyms

EACEA	Education, Audiovisual and Culture Executive Agency
EMAB	Ecological Monitoring and Aquatic Bioassessment
HEI	Higher Education Institution
IUT	International University of Travnik, Bosnia and Herzegovina
MB	Management Board
LLL	Life-long learning
PC	Partner Country
PgC	Programme Country
QAB	Quality Assurance Board
QAP	Quality Assurance Plan
SC	Steering Committee
SUM	University of Mostar, Bosnia and Herzegovina
UBL	University of Banja Luka, Bosnia and Herzegovina
UDE	Universität Duisburg-Essen, Germany
UDG	University of Donja Gorica (Podgorica), Montenegro
UES	University of East Sarajevo, Bosnia and Herzegovina
UNI	University of Niš, Serbia
UNIZG	University of Zagreb, Croatia
UNS	University of Novi Sad, Serbia, project coordinator
UNSA	University of Sarajevo, Bosnia and Herzegovina
UTZ	Public Institution University of Tuzla, Bosnia and Herzegovina
WP	Work package

1. Project information

1.1. General Information

Project acronym:	ECOBIAS
Project full title:	Development of master curricula in ecological monitoring and aquatic bioassessment for Western Balkans HEIs
Project reference No:	609967-EPP-1-2019-1-RS-EPPKA2-CBHE-JP
Grant Agreement No:	2019 - 1991 / 001-001 and Amendment No 2019 - 1991 / 001-003
Project web address	www.ecobiaserasmus.com
Funding scheme:	ERASMUS+ : Higher Education – International Capacity Building KA2 – Cooperation for innovation and the exchange of good practices - Capacity Building in the field of Higher Education
Coordinating institution:	University of Novi Sad Dr Zorana Đinđića 1, 21000 Novi Sad, Serbia
Project coordinator:	Prof. Dr. Snežana Radulović
Project duration:	15.01.2020 – 14.01.2023

1.2. Project partnership

The project consortium gathers 11 universities out of which four (4) come from three ERASMUS+ programme countries (PgC): Serbia, Croatia and Germany and remaining seven (7) from two partner countries (PC): Bosnia and Herzegovina and Montenegro.

The ECOBIAS consortium members are:

1. University of Novi Sad, Serbia, project coordinator, programme country
2. University of Niš, Serbia, programme country
3. University of Zagreb, Croatia, programme country
4. Universität Duisburg-Essen, Germany, programme country
5. University of Donja Gorica (Podgorica), Montenegro, partner country
6. University of Mostar, Bosnia and Herzegovina, partner country

7. International University of Travnik, Bosnia and Herzegovina, partner country
8. Public Institution University of Tuzla, Bosnia and Herzegovina, partner country
9. University of Sarajevo, Bosnia and Herzegovina, partner country
10. University of Banja Luka, Bosnia and Herzegovina, partner country
11. University of East Sarajevo, Bosnia and Herzegovina, partner country

2. Project context

The project *Development of Master Curricula in Ecological Monitoring and Aquatic Bioassessment for Western Balkans HEIs - ECOBIAS* is ERASMUS+ KA2 Capacity Building in Higher Education joint project selected under 2019-EAC/A03/2008 call for proposals, running between January 2020 and January 2023. The general aim of the project is to develop and improve knowledge, skills, and technical resources of HEIs in two partner countries (Bosnia and Herzegovina and Montenegro) in the field of ecological monitoring and freshwater bioassessment, fully aligned with national and EU policies.

More specifically the ECOBIAS project objectives are to:

- Develop and implement **advanced master curricula** in Ecological Monitoring and Aquatic Bioassessment in the WB HEIs in line with the Bologna requirements and national accreditation standards;
- Develop and implement **LLL courses** for the environmental monitoring sector in line with the EU Water Framework Directive in the WB HEIs;
- Equip 7 **laboratories** for ecological monitoring and bioassessment of freshwater ecosystems in the WB HEIs;
- Develop **regional academic ECOBIAS network** in order to organise and promote regional cooperation in Ecological Monitoring and Aquatic Bioassessment (EMAB).

The ECOBIAS project simultaneously develops **four master (MSc) curricula at four partner universities in Bosnia and Herzegovina**, fully aligned with the Bologna requirements, plus **three life-long learning (LLL) training programmes, two in Bosnia and Herzegovina and one in Montenegro** to allow EMAB professionals to improve and expand their knowledge and skills in the targeted fields.

The project follows a flexible education approach respecting the principle of accessibility of higher education. At the same time, it accelerates implementation of advanced teaching and learning methods and modern EMAB techniques to enhance the relevance of EMAB higher education and LLL opportunities in the selected partner countries, addressing both the labour market needs and societal challenges.

In the long run, the project aspires to increase employability and labour market attractiveness of graduates in the respective fields of ecological monitoring and aquatic bioassessment. Moreover, the targeted strengthening of EMAB academic cooperation in the Western Balkans region should lead to an increased number of new collaborative project proposals for EU grants and other funding schemes, and increased publishing of joint scientific papers.

Therefore, the development of the academic network in EMAB besides the ECOBIAS-NET internet platform are expected to contribute to the thematic cohesion of the WB region, as well as a more intensified cooperation between the EU and the WB countries. The network should gather EMAB academics and professionals from the entire WB region, not limited to the partner HEIs only. The ECOBIAS-NET online platform is expected to encourage members to connect and collaborate, develop joint project proposals, share ideas and knowledge, publish scientific papers together, etc. It is also hoped to enhance the prospective for student exchanges and accelerate initiatives for joint mentorship of MSc and PhD theses in EMAB field among the participating HEIs.

The planned capacity building activities should additionally strengthen the HEIs innovativeness in regard to the development of national and regional (Eastern Continental Intercalibration Group) ecological status in line with the EU Water Framework Directive. Teaching staff from all partner HEIs will participate together in theme-based training events in PCs, as well as in frequent ECOBIAS dissemination events (workshops, summer school, final conference). These are expected to promote people-to-people contacts, intercultural awareness and understanding, and significantly strengthen the networking potentials and expertise exchange.

3. External evaluation context

The external evaluation of the project is planned as a specific task number 4.5, led by the Universität Duisburg-Essen (project partner no. 4) and soundly integrated in the Work Package 4 – Quality Assurance (WP4), led by the University of Zagreb (project partner no 3).

The main objective of the external evaluation is to perform an independent and objective peer review of the ECOBIAS project progress as it works to meet its objectives laid out by the partners in the project proposal and approved by the EACEA as contracting authority of the Erasmus+ programme. The role of the external evaluator is to provide feedback on the quality of the project progress and the obtained outcomes, and to support the decision-making on further proceedings of ECOBIAS project about the successful achievement of the planned objectives. The main findings and recommendations of the external evolution are to be presented in two separate reports. The Mid-term Evaluation Report will serve as an annex to the ECOBIAS Mid-term Report, which is due on September 14, 2021, while the Final Evaluation Report will be annexed to the project Final Report, due on March 14, 2023.

The external evaluation covers all project work packages and is designed to complement the established internal quality assessment framework of the project and to provide the project consortium with evidence-based recommendations for further improvements. The external evaluation therefore includes assessment of the project progress, documents and obtained results, including analysis of bottlenecks, deviations and challenges. This comprehensive analysis provides foundations for the evaluation of the quality of the project organisation, procedures and deliverables, and allows for formulation of recommendations about possible improvements and advancements of the processes and outcomes, both during the project lifetime and beyond in regard to ensuring the sustainability of the project results.

The external evaluation approach equally considers both:

- development perspective: the extent to which the project objectives are achieved in the expected quality and capacity, with special emphasis on the true use of the project outcomes and their impact,
- project management perspective: the extent to which the administration, communication, collaboration and other aspects, including compliance with the deadlines, are efficient and effective.

This external evaluation report therefore is intended to serve as a summary of the project efforts and the obtained results against the project logic and the set objectives, with a view to future potentials. At this mid-term stage it is developed based on a thorough analysis of the documents and deliverables, observations, introductory and follow-up interviews with the project coordinator and UNS team, and one online questionnaire for the project consortium. These served as inputs for the external evaluation linked with the project mid-term reporting. Given that internal quality assurance processes were soundly integrated and carefully considered in the management of the project, the external evaluation complemented this agenda. The external evaluator worked independently and without bias, while also maintained flexibility, open collaboration and close communication with the project coordinator and the University of Novi Sad team, throughout the process aiming to ensure shared understanding of the main quality principles and challenges.

The University of Novi Sad, project coordinating institution acted also as the contractual partner for the external evaluation and responsible for the final acceptance of the evaluation results. The call for the Expression of Interest for ECOBIAS project peer reviewers was published on the project website on July 4, 2021 (<https://www.ecobiaserasmus.com/call-for-ecobias-project-peer-reviewers/>) and the selected evaluator was appointed on July 14, 2021.

Following the submission of the Mid-term Project Report the external evaluator aspires to play a more active role in the project by providing a real time analysis of the project development and where appropriate contributing with suggestions for improvements, while remaining independent from all activities, aiming to better assist partners throughout next stages of project delivery.

3.1. Evaluation aims

Based on the Project plan the external evaluation of the Project is to be carried out on the following points:

- Partner meetings and events (workshops, training events, roundtables);
- Leadership and management;
- Dissemination deliverables and outputs;
- Communication internal and external;
- Project activities (evaluation of each WP);
- Project outputs and outcomes
- Measuring the impact, number of participants (students, professionals, academic staff involved, number of stakeholders, institutional policy makers, etc.).

Quality Monitoring is expected to be carried out covering the following key points:

- Relevance: the extent to which the project objectives are relevant to the context and beneficiaries;
- Effectiveness: the extent to which the project objectives were achieved;
- Efficiency: the timely provision of activities, the quality of management and monitoring procedures and its progress towards the achievement of expected outputs;
- Impact: measuring the impact, change against an initial situation;
- Sustainability and reproducibility likelihood of continuance of positive outcomes after the end of the project.

3.1.1. List of project indicators

The list of **progress indicators** and targets to be monitored include:

- The increase in quality of regional cooperation in education and research regarding ecological monitoring and aquatic bioassessment (number of graduate students, number of trained professionals, new regional cooperation in EMAB education and research);
- 27 novel ECOBIAS courses (by M2 2021) and learning materials (by M8 2021) in total developed;
- 26 novel master courses and learning materials developed by M8 2021, and implemented by M12 2022;
- 14 novel LLL courses and training materials developed by M8 2021, implemented by M10 2022, and accredited/approved by M4 2022;
- At least 68 members of WB PC teaching staff trained by M8 2021;
- 7 new and up-to-dated laboratories at 7 partner countries universities designed and equipped by M12 2021;
- 4 master curricula in EMAB developed, implemented and accredited/approved by M4 2022;

- At least 28 students enrolled in new master curricula by M9 2021;
- At least 18 participants from the environmental monitoring sector in WB PC trained by M10 2022;
- ECOBIAS-NET Academic Network established by M12 2021;
- 55 students and 22 professionals participated in the summer school “DNA metabarcoding” at University of Tuzla.

The **dissemination indicators** include:

- Number of participants at the ECOBIAS events;
- Number of site and the Platform visits;
- Number of the ECOBIAS-NET members;
- Number of responds on social networks;
- Broadcast rating.

3.2. Evaluation methodology

External evaluation exercise should be a particularly helpful assistance to the project coordinator, the consortium, as well as the funding authority, in ensuring that the project achieves its stated aims, and that where it falls short redirections can be made to put it back on track. This means that the external evaluation seeks to measure an extent to which the project objectives have been attained and identify effects brought about by the project, including immediate outputs, outcomes and impact made (seeking to spot also indirect or even unintentional ones). The evaluation should also answer how well the activities carried out have reached the intended recipients, to address their quality and timeliness, and evaluate the instruments used to meet the prescribed objectives.

In the selection of the most suitable evaluation format the underlining principle was to deliver a useful, comprehensive and evidence-based assessment of the project work packages, deliverables and outcomes against the set project objectives, logical framework and workplan. The process leading to such assessments requires to evaluate not only the delivered project documents, developed syllabi for new master and LLL courses, meeting and training reports, but also to capture the project management processes and level of collaboration within the consortium. Moreover, it should also collect inputs about the accreditation of the new programmes which plays an important step in formal external quality assurance of the key project results. Finally, it should consider the establishment of the regional academic ECOBIAS network, how it is designed and its capacity to ensure long-term sustainability of the project outcomes.

The external evaluation toolbox, therefore, combined several methods to match the objectives of external evaluation and the resources available, time included. The main purpose was to ensure the credibility and usefulness of the findings. The selected approach used desk analysis, observations, a short online survey with project partners and several interviews with the coordination team.

The external evaluation process followed a 5-phase approach as presented below:

1. Establish the appropriate evaluation approach and identify the baseline

At the beginning of the assignment an inception meeting was held with the project coordinating team at the University of Novi Sad. The meeting helped to set clear understanding of the external peer review objectives and define the key issues to be addressed to complete methodology and select suitable reporting methods. Prior to the inception meeting the project background files were already provided to the external evaluator. At the meeting the evaluator and the project team agreed on a communication dynamic and online platforms which will be used to handover the project deliverables and other relevant sources which are not available on the project website. The inception meeting was used to assist the evaluator to absorb all information needed to establish an appropriate evaluation approach and as an outcome provide a robust and effective evaluation.

2. Desk review

In order to ensure the evaluation process remains focused and efficient, desk-based research was used to assemble all background information relating to the project implementation. The evaluator was given access to the MS Teams, Dropbox and Google Drive document repositories after the inception meeting, what ensured full transparency of the project progress and outputs. The analysis concerned all available project documents including: project proposal, project intervention logic (logical framework matrix), workplan, quality assurance plan, project template forms and instructions, meeting reports, deliverables, web site information (www.ecobiaserasmus.com), project Facebook page (www.facebook.com/EcobiasErasmus), and other available and relevant sources.

Data and statistics gathered through internal monitoring (incl. baseline data where applicable) and project procedures were explored, allowing for a more detailed qualitative and quantitative assessment of the project outcomes. The abundance of written project documents enabled the desk review phase to already gauge the progress and level of achievement of the project objectives and delivered results against the project proposal, workplan and logical framework matrix. It also facilitated review of the effectiveness of operational aspects of the project, assessment of the project management and collaboration framework and identification of potential strengths, weaknesses, opportunities and threats which could arise in the project implementation.

3. Impact analysis

The analysis of the project impact aimed to clearly identify the performance of each of the project activities and deliverables as compared with the project milestones. In particular the following key areas were examined:

- Appropriateness and effectiveness of the project deliverables to achieve the expected project results (their relevance, effectiveness, efficiency, impact, sustainability);

- Process and experiences in project delivery including communication, management and administration;
- The collaboration outcomes;
- Project objectives reached, outcomes delivered, and if they are as useful as expected, what unplanned results are obtained?
- Review of the development pillars of the future regional academic ECOBIAS network and foreseen engagement of key stakeholders;
- Measure the impact of capacity building and dissemination;
- Assessment of the risks identified and if any of these had occurred and put an impact on the project outcomes, what is closely linked with the WP 4 Quality Assurance;
- What, if anything, should have been done differently? Best practice lessons. examining possible enhancements for the project;
- Added value and synergy: how the project complements with other initiatives of relevance and to the academic regional collaboration?

4. Consultations

This essential phase involved two stages of consultations with project internal stakeholders:

- Short external online evaluation questionnaire;
- Consultations with the representatives of the project team;

5. Conclusions and report compilation

This stage brought together all aspects of the work performed during the evaluation process in form of a written Mid-term report. It included making recommendations to enable improvement in the project work as the project progresses, as well as collecting feedback on the draft evaluation report from the project coordinator.

4. Project management and collaboration

4.1. Management structure

The project leadership and management approach were thoroughly prepared and well-established from the very beginning of the project planning. The management structure of the ECOBIAS project is particularly well suited to the project ambition and consortium composition. It serves a twin mission: to ensure effectiveness and quality of the work expected from the project funded under the Erasmus+ program, but also to keep flexibility and adapt to unforeseen challenges, including the COVID-19 outbreak.

Right at the beginning of the project implementation, in M2 as originally planned, the Consortium established the **Guidelines on the project management and reporting** (www.ecobiaserasmus.com/wp-content/uploads/2020/03/MP-ECOBIAS-Masterpage-1.pdf). The document is truly comprehensive and provides a coherent framework for an effective project management. It serves the consortium to maximise success potentials of the project

by raising awareness of the key management and administrative issues and helps partners to address each element of the project at the right time and to the right level of detail. The Guidelines explain key processes which should be employed on the course of the project lifetime. This document offers partners an easy-to-follow support on how to manage the project locally in an efficient manner. Moreover, it specifically deals with the financial management and administration issues, which usually stands as one of the most time-consuming administrative tasks. These are presented clearly and help the partners in provision of all documents necessary for financial monitoring, reporting and audits. The Guidelines offer detailed explanation of eligible and ineligible costs, instructions for preparing financial tables, a list of required supporting documents to justify incurred costs, rules for tenders in order to facilitate purchasing of equipment, etc.

The project management structure includes three management levels: the project as a whole, work package level, and task level, with a clear delegation of responsibilities and accountabilities set in the Guidelines on the project management and reporting.

The ECOBIAS project management structure is transparently presented in the **Management Tree** (<https://www.ecobiaserasmus.com/wp-content/uploads/2020/03/Presentation2.pdf>). Based on this graphical display and an exhaustive elaboration of project roles included in the project proposal and the Guidelines, the division of tasks seems clear, credible, effective and easy to oversee.

The Guidelines effectively elaborate the roles and responsibilities of each project management body thus consistently designing a framework for well-organized and smooth project collaboration. This document sets the outline for meetings organisation, decision-making, and regular assessment and management of project risks. Additionally, it reminds of the key provisions from the Grant Agreement which sets the basic rules for the publicity issues and the use of Erasmus+ programme visual identity. It deals in sufficient detail with the programme requirements about financial management of the grant, including penalties in the case of poor, partial or late implementation of the action. It explains applicable exchange rates, co-financing principles, and what is more, it gives a co-financing plan per partner per cost category. This stands as an example of a very open, clear and transparent approach to partners' accountability for project financial management and co-financing. Furthermore, the Guidelines provide well-defined instructions on the main financial management and administration issues including budget modifications, payment and reimbursement arrangements, procedures to follow when purchasing equipment, rules for subcontracting, and rules that apply to different cost categories (staff, travel costs, costs of stay). Finally, the Guidelines provide presentation of reporting dynamics and requirements. Alongside the compulsory reporting to the EACEA, as set in the Grant Agreement, the project established three additional ways of reporting: internal reporting about the project progress and spending on the level of each partner institution. In this sense the project is being divided into eight internal reporting periods, in addition to mandatory reporting about each project event organised and reporting on the project activities implemented. The reporting requirements

are complemented with an inclusive list of supporting documentation partners have to retain with the project accounts for the purpose of financial evaluation and/or audit. The list is organised around each cost category. At the very end the Guidelines present an overview of the chosen project communication channels, a set of advice how to organise effective meetings and shortly elaborate about the preferred approaches to conflict management and resolving.

The already comprehensive Guidelines are accompanied with the **Rules of Procedure**. The Rules of Procedure arrange with more fine points and on a more practical level issues which are most directly related to organisation of the meetings of project management bodies. It includes definition of the quorum, who chairs the meetings and the decision-making process with clear preference of reaching consensus among partners. It describes voting rights, voting process and procedure for voting by e-mail, enlists circumstances under which proposals can be reconsidered, and deals with the impact of COVID-19 outbreak on the organisation of the meetings. The Rules of Procedures and Guidelines on the Project Management and Reporting provide a consistent and overarching framework for effective project management and fruitful consortium collaboration.

To ensure cost effectiveness of the grant management, the project proposal schedules that the regular Steering Committee meetings are organised back-to-back with Management Board and Quality Assurance Board meetings. The timing of regular meetings of the project management bodies should correspond with beginning and closing of individual activities in work packages Preparation (WP1) and Development (WP2).

The entire project management structure and organisation of the work, including WPs, tasks, key deliverables, names of WPs leaders, task leaders and those of all contributing parties to each task are available on the project website under Management section.

4.1.1. Project management bodies

The ECOBIAS management structure includes the following bodies:

- Project Coordinator
- Steering Committee
- Management Committee
- Quality Assurance Board

The project is led by the project coordinator Prof. Dr Snežana Radulović from the Faculty of Sciences, University of Novi Sad, Serbia.

At the Kick-off meeting, held in February 2020 in Novi Sad, the structure of project management, comprising of the Steering Committee, Management Board, Quality Assurance Board, Work Package Leaders and Task Leaders was established.

The project is governed by the Steering Committee of 11 members. Each partner is represented by one member. The everyday management is assigned to the Management Board where each partner is represented with two members who take lead responsibility for the project at their home institutions (namely contact persons for the institution). The Quality Assurance Board comprises of 11 members, each partner is represented. The project coordinator Prof. Dr Snežana Radulović is member of both the Steering Committee and the Management Board, and chairs the meetings by function.

Project Coordinator manages the project on a day-to-day basis, is responsible for overall project management (technical and operational) and the efficient use of the project grant, and maintains regular contact with the EACEA in regard to formal communication and reporting. Among responsibilities of the Project Coordinator are coordination with all project management bodies on all matters arising relevant to ensuring the quality of the project deliverables and reaching defined objectives, and ensuring that the project work is progressing in conformity with the workplan, that WPs and tasks are harmonised among themselves and that any cross-WP/task inputs and outputs are being delivered as foreseen. Project Coordinator chairs SC and MB meetings, officially submits all deliverables after their internal approval to EACEA and communicates with the Consortium any changes in the Partnership Agreement, related workplan and any implicit changes in the implementation of the project that may affect the timing or the content of relevant deliverables.

Steering Committee (SC): According to the project plan, the roles and responsibilities of the SC are to ensure that the project objectives are being adequately addressed and the project remains under control. These include: continual monitoring and evaluation of the project implementation, governing the project scope and dealing with emergent issues forcing changes, ensuring that the scope aligns with the agreed project requirements of key stakeholders, resolving project conflicts and disputes, reconciling differences of opinion and approach, assisting the project coordinator, when required, and formal acceptance of project deliverables. It is planned that the SC meets at least one once per year and on those regular meetings discuss and review progress of the project activities, make decisions regarding the approval of major deliverables and agree on any risk contingency measures. Each member of the SC has a mandate to negotiate on behalf of his/her institution and participates in decision-making at the SC meetings.

Management Board (MB) (previously called Project Management Team) is responsible for achievement of the project outcomes and coordination of the project at the level of the partner institutions. MB reviews activities and decides on necessary actions in reorganization of tasks and resources with a strong emphasis on impact of the project.

Quality Assurance Board (QAB) consists of one designated person per partner and is in charge of development and update of the Quality Assurance Plan which systematises and specifies the QA activities, monitoring and evaluation. Each project output shall be approved by the QAB. QAB also prepares evaluation questionnaires and provides direct support to the Project Coordinator in monitoring and assessing the quality of the project and its results.

4.1.2. Work packages and tasks organisation

Considering the organisation of the project work and efforts, for each work package and each task are assigned individuals responsible for smooth implementation and coordination with contributing parties. Moreover, responsible teams are appointed for each task. The project is organised in 6 work packages and 35 tasks in total, therefore the chosen approach of transparent delegation of work and duties from the beginning of the project indicates that it is led by experienced and skilful team, which brings to the project a number of valuable lessons previously learned.

Work package leaders are responsible for monitoring of the overall progress of the WPs and associated activities. This includes update of the WP action plan and making sure that all activities are adequately defined in the time plan, coordination of the WP and cooperation with the task leaders to ensure that all the activities are contributing to the WP objectives, that all respective partners are involved, and that any cross-WP inputs and outputs are being delivered as foreseen by the project description. Moreover, WP leaders are expected to keep time management and remind partners about deliverable submission deadlines, procedures to be followed and provide input and suggestions to the task leaders during preparation of the relevant deliverables. WP leaders also provide feedback to task leaders on draft deliverables and assist them in implementation of suggestions provided by the QAB and verify their satisfactory fulfilment.

Task leaders are considered main authors of task deliverables, in charge to ensure active participation of contribution partners and that deliverables are submitted on time and in expected quality. Their roles include the following: coordination of deliverable(s) development (using the deliverable template), delegation of work, provision of guidance and assistance to contributing partners, compilation of the individual contributions, submission of a draft deliverable to the WP leader, QAB and the coordinator, organisation of the implementation of feedback received and submission of the amended draft deliverable. Task Leaders cooperate with the WP leader and other partners in the same WP to ensure that activity progress is in conformity with other activities and that any cross-task inputs and outputs are being delivered as foreseen by the WP description (respecting any changes approved by the SC as recorded in the respective minutes). Task leader also reports to the WP leader if problems occur during the implementation of the activity.

Task teams are appointed for each task. The number of members vary, depending on task complexity and requirements. All members are co-authors responsible for production of task deliverable(s). If a deliverable is in written form and there are more contributors, respective document template is used to help task leader assemble the final document easily in the desirable format. All members are responsible for providing relevant inputs, including complementary information (i.e. references, bibliography, methodologies used, contact details of people interviewed, etc.), as well as for implementation of feedback comments and proposals made by task and/or WP leader, QAB and the project coordinator.

4.1.3. Problem solving

In its closing part the Guidelines on the Project Management and Reporting set basic rules and approaches to solving collaboration problems and conflict resolution. It opens the issue with an affirmative sentence *“conflict is a normal part of relationship between partners involved in a working group of a project”*. The explanation further normalises the issue indicating that conflicts can arise from different points of view and gives examples of the most common groups of conflicts like performance-related, administration-related and interpersonal ones. The chosen management approach unlocks an assertive communication and offers steps to follow in order to manage and give a resolution to any type of conflict. It assigns the key role in conflict anticipation, prevention and management to the project coordinator. However, the proposed measures should be equally applied by all individuals who take over leadership role of the project components, either as WP and task leaders and project partner contact points. The preventive and mitigation measures for problem solving are thoughtfully prepared, helpful, feasible and easily applied. An underlying principle is transparency regarding organisation of the work and finances, what is successfully attained throughout the project implementation. Transparency is coupled with clear delegation of tasks and assignments, flexibility, respect, equality and diversity in communication. It encourages learning from the peers, what reassures that the project will find a way to learn from the problems and disputes faced and seek win-win solutions. Finally, it offers a kind of motto saying that *“the best form to achieve a good conflict management is to collaborate, remain flexible and think that there are solutions not yet discovered.”*

The project communication is very effective with exceptionally high satisfaction rate among all consortium members (more details are presented in the section *6.2 Internal communication and collaboration*). Only one issue emerged during the first project year with the University of East Sarajevo (UESA), directly caused by the adoption of the new law on higher education in Republic of Srpska which brought up an unexpected legal vacuum in regard to accreditation of new master programmes in the transitional period. In case these changes could fully prevent UESA to reach targeted objectives, create new master programme and enrol students, the coordinator suggested to UESA to suspend all financial activities until the problem was figured out and to temporarily withdraw from the integrated tendering procedure for the equipment. These requests caused a misunderstanding between UESA and the coordinator, which however did not escalate and was soon mediated with the active involvement of other BIH partners and the National Erasmus+ Office. Finally, an acceptable solution for approval of new ECOBIAS master programme at UESA was found in due time that did not jeopardize the roll of UESA in the project and enabled further smooth implementation in accordance with the plan.

4.1.4. Gender balance

In terms of gender balance, the ECOBIAS project demonstrates equal representation of both men and women within its management bodies. It stands as a good example of well-balanced approach to project and work leadership in terms of gender sensitivity. Both men and women equally participate in project management and implementation of set objectives and planned activities. In the table below there is an overview of the number and percentage of women in project management and implementation teams:

Executive group	Total number	Number of women	Number of man	Percentage of women
Steering Committee	11 members	5	6	45%
Management Board	22 members	12	10	54%
Quality Assurance Board	11 members	7	4	63%
Work Package Leaders	6 WPs	3	3	50%
Task Leaders	35 tasks	18	17	51%

It would be quite valuable for the project to conduct a short gender analysis (statistics) of participation in the already held and future events during the project lifetime (within trainings, dissemination events, open days, LLL courses and MSc curricula) in order to tackle any gender-related misbalance that might arise and increase its outreach accordingly.

4.2. Partner meetings and events

A number of project meetings and events was organised, both online and live events, when possible in accordance with the preventive measures against the spread of coronavirus SARS-CoV-2. The meetings and events successfully adhered to the project plan and schedule by virtue of a good organisation and timely embrace of alternative ways to meet using virtual meeting platforms in the months when strict travel bans were in place, especially in the early days of pandemic which unfortunately hit hard at the very beginning of the project implementation. The kick-off meeting was organised in Novi Sad, Serbia in February 2020, just several weeks before the pandemic emerged. The remaining live meetings and events were carefully prepared especially in terms of deciding about the meeting place and dates to travel and meet in person, intending to be optimal for majority of partners still respecting all travel requirements under new conditions (PCR testing, vaccinal passports, etc.). Besides regular management meetings, separate meetings dedicated to individual work packages were organised alongside a set of trainings, workshops, Open Days and other dissemination events.

4.2.1. Management meetings

According to the data available for the first half of the project duration, the management meetings were organised fully in line with the project workplan, and with the dynamics envisaged. It can be concluded that all necessary structures and processes have been established at the beginning and that the partners collaborated in a friendly and well-organized manner, able to react to unforeseen challenges and obstacles in time and thus reducing delays and enhancing communication.

The following meetings were held:

- Kick-Off meeting, 10-11.2.2020, Novi Sad, Serbia
- Steering Committee online meeting, 22-23.03.2020
- Management Board meeting, 23-24.06.2020, Travnik, BIH
- Management Board meeting, 21.09.2020, Sarajevo, BIH
- Management Board meeting, 15.12.2020, Zvornik
- Management Board meeting, 26.01.2021, Tuzla
- Virtual management meeting, 28.12.2020
- Management Board meeting, 22-23.03.2021, Istočno Sarajevo, BIH
- Management Board meeting, 29-30.06.2021, Mostar, BIH

Kick-off meeting, 10-11.2.2020, Novi Sad, Serbia

The Kick-off meeting of the ECOBIAS project was organised and held as planned, within M1 of project duration, at the coordinating institution (UNS, Serbia). 29 representatives, from all 11 Project partners, were in attendance.

The agenda of the meeting was adequately created in order to establish and officially adopt the project management structure, as the main expected outcome of the activity, as well as to develop the administrative, tendering and financial plans for further drafting of the of the Guidelines on project management and reporting.

The consortium voted unanimously to adopt the proposals of ECOBIAS visual identity, the Guidelines and Rules of procedures, Workflow process / Management structure and the use of Trello (collaborative) and Connex.me (conference) apps. The structure of project management, comprising of the Steering Committee, Management Board, Quality Assurance Board, Work Package Leaders and Task Leaders were all established. The Project support team was left pending for the following meeting.

The Project coordinator proposed a detailed Action Plan for the first Project Year, which included concrete project-related topics, venues and dates for further key management board meetings. This has created a convincing timeline for a good management planning and delivery. The Consortium voted unanimously 'for'.

In order to address the specificities of each participating university with regards to their roles and obligations, the project coordinator conducted bilateral meetings on partnership

agreements, equipment purchasing issues and other different subjects with all the partner institutions at different times. Final partnership agreements, the first-year budget balance, as well as the transfer dynamics were all agreed upon after discussions involving special requests of project partners.

The input created at the Kick-off meeting led to the timely delivery, by M2, of the first draft of the Guidelines on project management and reporting. This comprehensive and well-structured document had created a sound basis for supporting all the partners in further managing of the project locally in an efficient manner and being able to provide all documents necessary for financial monitoring, reporting and audits, and fulfilling of their contractual obligations.

A good indication of anticipating and solving challenges was the addressing and explaining of the change in project activities of UDG and the subsequent change in project tasks, by the project coordinator. The EACEA suggested changing the main task of UDG: instead of 25% modernisation of the existing MSc curricula to go for developing new LLL programme, its accreditation and implementation. The consortium agreed by acclamation.

Moreover, after the presentation on the specific conditions related to the public tendering procedure in Bosnia and Herzegovina, each partner institution from BIH agreed to sign an agreement with UNSA, so as to enable UNSA to conduct the procedure, whereas each institution would only pay their own equipment.

The minutes of the Kick-off meeting illustrate an active participation of all project partners in different items of the agenda, depending on the appointed roles and topics. The collaborative nature of the discussions is illustrated in the use of different formats (plenary and bilateral, formal and informal) present in the structure and content of the meeting. The materials prepared and further developed can be seen as a sound platform for realising project activities and achieving project goals.

Formal decisions on the composition of the Steering Committee, Management Board and Quality Assurance Board are available on the ECOBIAS website.

Steering Committee online meeting, 22-23.03.2020

The ECOBIAS SC online meeting proposed by UNS and UNI, was held in terms of the need for Vis Major Action of Partners Solidarity to UNIZG, due to the earthquake in Zagreb on 22.03.2020. It was decided unanimously by the coordinators of all 11 partners to support the Action of Solidarity and assisting UNIZG fully by engaging UNI with the WP1 task 1.1 and UNS in helping to finish WP4 Task 4.2 together with the task 4.2 team.

Management Board meeting, 23-24.06.2020, Travnik, BIH

The MB meeting was held according to the Action Plan for the first Project Year adopted at the Kick-off meeting. The dates were as planned, whereas the venue was changed from Tuzla to Travnik.

Having in mind that this event was taking place during the initial phases of the Covid-19 pandemic outbreak, efforts were made to combine physical and virtual (Zoom call / Skype) participation and remain on schedule. There were 24 attendees from 9 partners (UDG and UNIZG were absent). Out of the overall number of attendees, 13 of them were the formally appointed members of the MB composed of 22.

Apart from the regular order of business, the agenda was tailored in such a way as to address both the ongoing situation with the Covid-19 pandemic in each programme and partner country, as well as its implications on project activities. The proposal to include new Articles with regards to the Covid-19 pandemic into the Rules of Procedure was unanimously adopted. It is commendable that the MB addressed both the Covid-19 outbreak impact on mobility and on human rights.

Reports and updates were provided on the Action plans for 2020/2021 for each work package.

WP1 contains four analyses/tasks as the preparation phase. It was noted that even though they were prepared according to the workplan and that the WP1 tasks were successfully finished by M4/M5, accommodations between coordinators were made in order to assist those colleagues who were affected by Force Majeure (earthquake in Zagreb) or Covid-19 lockdowns and thus remain on schedule. All analyses developed are available on the ECOBIAS website. Within WP2, as part of the task regarding learning materials preparation, the ECOBIAS textbook standard was presented.

The manner in which situations of Force Majeure were handled by the project demonstrates a high degree of solidarity between the partners and the adaptability needed to implement activities on time. Since these unpredicted circumstances affected certain tasks, particularly in WP4, the committee proposed changes in allocation of tasks and members assigned to particular activities, which was unanimously accepted.

The WP5 Dissemination Plan was prepared according to the workplan by M4/M5. It was presented and adopted at the meeting. It is a well-structured and detailed document, providing the templates for the attendance list, evaluations, feedback, and reports. The ECOBIAS website was also designed and launched in line with the schedule.

Reporting on the WP6 management did not include any delays. The Management plan was adopted unanimously.

The detailed trainings scheme plan was discussed at the meeting. The project coordinator suggested that training in Algology should be postponed to 2021 considering long tendering procedure and risk that necessary equipment will not be obtained on time. Partners' activities regarding the tendering procedure were discussed during the meeting, and joint timelines were agreed upon.

The meeting was well publicized in the local media (YouTube video available).

The MB meeting was followed by trainings.

Management Board meeting, 21.09.2020, Sarajevo, BIH

The MB meeting was held according to the Action Plan for the first Project Year adopted at the Kick-off meeting. There were 25 attendees from 10 partner institutions. Out of the overall number of attendees, 15 of them were the formally appointed members of the MB.

The project coordinator reported on the latest activities and current issues. The agenda was updated by the addition of a new item (final Quality Assurance Plan).

During the meeting, certain formalities were arranged regarding the Joint tender for equipment that UNSA was hosting for all partners in Bosnia and Herzegovina (affidavit from BIH partners). The process, although complicated, seemed to be going according to plan.

Two activities in WP2 (2.1. and 2.4) were specifically discussed in order to manage them more effectively. The deadline for 2.1 was slightly extended, as for 2.4. a change of venue for the December 2020 events was put on the table. The coordinator also suggested a potential new organisational model for future training events, as combination of live and online meetings.

It is positive that during the meeting special attention was given to the Report of the Montenegro Erasmus+ Office from July 2020 and the recommendations set within. Since the recommendations focused on extending the ownership of project goals within outside stakeholders and associate partners, wider dissemination efforts and ensuring sustainability of results, it is reassuring that they were being dealt with by the consortium in the first year of the project lifetime.

A delay can be noticed in the Quality Assurance Plan. According to the schedule its development was envisaged for M2. However, due to Force Majeure situation regarding the task leaders in WP4, and the period needed for other colleagues to step in and assist, it is understandable that it took more time to come to the final proposal and adoption of the Quality Assurance Plan. The coordinator proposed to UNIZG to delegate one more project administrator, due to difficulties both in communication and Covid-19 risk assessment, and thus mitigate any other potential delays in project tasks. This can be viewed as good management practice.

The meeting was well publicized in the local media (YouTube video available). The MB meeting was followed by trainings.

Management Board meeting, 15.12.2020, Zvornik, BIH

The MB meeting was held as scheduled. There were 11 attendees. The agenda of the meeting combined management issues and WP2 developmental topics. The item of accreditation in BIH, Republic of Srpska was dominant in the first half of the meeting. There was a presentation of the new legislative framework for the accreditation of ECOBIAS MSc curriculum. The process would be carried out in accordance with the Law on Higher Education of the Republic of Srpska published in July 2020. The accreditation of MSc courses was not to be dependent on previous accreditation of BSc studies. UES would be delivering until 15th of January 2021

the certificate which approved the submission of the MSc curriculum accreditation request to the Ministry. UES presented the Accreditation study (elaborate) of ECOBIAS MSc curriculum. All participants joined the discussion. The changes of elaborate were suggested to meet the project requirements and objectives, as well as the recommendations given by the evaluation experts (during project application stage).

Presented progress in WP2 was in line with the workplan in terms of courses design and development of syllabi for ECOBIAS MSc curricula and LLL trainings, purchasing of literature, software and laboratory equipment and theme-based trainings of teaching staff for acquiring new EMAB methods and field techniques.

Virtual management meeting, 28.12.2020

The project coordinator discussed the feedback on the Remote Erasmus+ monitoring visit of the ECOBIAS project. The meeting also included reporting on the tender procedure, WP2 activities, workshop in Travnik and Platform development.

Management Board meeting, 26.01.2021, Tuzla, BIH

The MB meeting was held as planned. There were 24 attendees from 8 project partners.

The agenda of the meeting was focused on pending and future issues related to the project activities. The tender report for equipment was provided and the timeframe for accreditation of ECOBIAS MSc curricula of UNSA, UTZ, UES and IUT was discussed.

Since this MB meeting was last in the series envisaged for the first year, the main topic was accordingly the workplan for 2021 and scheduling theme-based trainings of teaching staff for acquiring new EMAB methods and field techniques in 2021.

The coordinator acknowledged publicly the annual results of IUT and labelled it as a best practice example: organization of two project events, including the workshop, Open Day for students, equipment tendering procedure finished and the MSc accreditation Elaborate finished and approved - all that before end of December 2020.

It was noted down that UES should start the equipment tendering procedure asap.

The coordinator reported that all universities establishing ECOBIAS MSc programmes have completed the Elaboration on launching the master study programme (UNSA, UNTZ, UES and IUT). Approvals from the relevant ministries were expected to follow.

The consortium was informed in detail about all the training conducted within WP2. Individual professors were commended for the outstanding on-line trainings.

It was reiterated that the number of courses listed in the application must be respected for every training course. It was stressed that regardless of the fact that someone gave an online lecture, he can hold the lecture in live if the opportunities for that are realized.

A training plan was presented, in which it was reported that out of a total of 27 courses, 10 were held, 17 remained, of which 1 in Germany and 1 should be held in Podgorica.

The efforts to make contingency plans and tentative dates for the second Project Year, within a highly uncertain period of the Covid-19 pandemic, is visible in the work of the MB. The consortium agreed on the schedule for the remaining trainings by dates and venues.

After the report on learning materials, the deadline for ECOBIAS textbooks was set for 1st September 2021, after the peer-review process, to be fully ready for the 2021/22 academic year.

So as to boost project dissemination, as recommended by the National Erasmus+ Office of Montenegro, it was suggested that each university from partner country should hold two Open Days for students in 2021 (one in May and one in September) and one roundtable in September for stakeholders. Additional task leaders were appointed for tasks 5.5. and 5.6.

Also, the dates and topics for the second workshop were agreed upon.

The Quality Assessment Plan was presented with duties and reporting obligations. The event host is obliged to fill in relevant forms after each event (meetings, trainings, workshops, open days, round tables ...). Participants are invited to rate the event using the evaluation questionnaires prepared, while the host gives a summary grade and a summary report and sends it to WP leader.

Management Board meeting, 22-23.03.2021, East Sarajevo, BIH

The meeting's agenda focused on the progress being made in the process of accreditation:

- Timeframe report for accreditation of ECOBIAS MSc curricula UNSA, UTZ, UES, IUT,
- Timeframe report for accreditation of ECOBIAS LLL curricula UDG, UBL, SUM,

as well as the preparations and allocation of tasks for the Project's Interim Report were put into place.

Management Board meeting, 29-30.06.2021, Mostar, BIH

The meeting followed up the item of the timeframe for the accreditation of ECOBIAS MSc curricula at UNSA, UTZ, UES and IUT, and accreditation matters on ECOBIAS LLL programmes at UDG, UBL and SUM. It further analysed the theme-based trainings of teaching staff for acquiring new EMAB methods and field techniques (part of the workplan 2021 M1-M8), as well as the preparation of the learning materials.

4.2.2. Project meetings

In addition to formal meetings of the Management Board, the project partners also met for other occasions and hosted meetings specifically dedicated to particular tasks and work packages. In the first half of the project lifecycle, the following project meetings were held:

ECOBIAS Work Package 2 meeting, 14-15.12.2020, Zvornik, BIH

The meeting dedicated to the developmental WP2 was held in unison with the MB meeting, QAB meeting and ECOBIAS training. This meeting was committed to crucially important issue of new EMAB programmes accreditation, with particular focus on the UES, as well as on the workplan for the second half of the project Year 1 and the first half of the Year 2.

UES presented the new legislative framework for accreditation of ECOBIAS MSc curriculum, the timeframe for accreditation and the accreditation documentation already prepared. There was a revision of UES teaching staff and the planned training events. During the second part of the meeting the relevant issues of purchasing of literature, software and laboratory equipment was discussed, including both the related procedures and required documentation.

UNI-UNS-UDG WP4 meeting, 17-19.06.2021, University Donja Gorica, Podgorica, Montenegro

The meeting focused on quality assurance issues, financial reporting, finished tendering procedure (documentation listing and equipment inventory), reporting on finished LLL accreditation (documentation listing and development of the plan for the implementation of LLL courses). This was a timely stocktaking exercise having in mind the project's lifetime and its interim report.

4.2.3. Project events, trainings, workshops, roundtables, and open days

The project envisaged a set of trainings and workshops starting from M9 of the first project year. So far these have been documented on the ECOBIAS website:

Trainings for the teaching staff of the partner countries HEIs were envisaged under the WP2 - Development. They were planned as a set of eight theme-based trainings of teaching staff aimed for acquiring new EMAB methods and field techniques. In this reporting period, due to compliance with the COVID-19 measures, trainings were organised both as live events, as well as on-line trainings. In total, 17 trainings were delivered from September 2020 to July 2021:

- Live trainings: Biomonitoring and conservation biology, System for evaluating rivers for conservation, Biodiversity conservation, Bioindication and biomonitoring of aquatic ecosystems, September 2020; EU and regional legislation in management of freshwaters, Ecological projects, January 2021; Practicum-in-Ecology-Zoology, Forensic essentials in aquatic insects ecology, May 2021; Aquatic and semi-aquatic macrophytes, Aquatic macroinvertebrates in bioassessment, Field practice in aquatic monitoring, July 2021;
- Online trainings: Environmental engineering, Water protection technologies, December 2020; Aquatic ecotoxicology, Conservation-biology, Methodology of science in Ecology, Classification protocols and systems in ecomonitoring, January 2021; Algology, June 2021; and water protection technologies.

The remaining ones are planned to be implemented until mid-September 2021.

Three workshops are planned under the WP5 – Dissemination & Exploitation, task 5.4, to be organised in the first and the second project year for the purpose of knowledge transfer in EMAB and popularisation the ECOBIAS-NET platform among targeted stakeholders. So far two workshops were successfully implemented:

- Workshop “Establishment of regional academic network in EMAB”, 14-16 December 2020, International University of Travnik, BIH (directly linked with task 3.1),
- Workshop “New trends in ecological monitoring and aquatic bioassessment”, 24-25 June 2021, Public Institution University of Tuzla, BIH.

The activity of organising **Open Days** is included in WP5 - Dissemination & Exploitation, as task 5.6, in order to provide interested students and professionals timely insights into studying new EMAB programmes at partner HEIs. Open Days are designed to attract prospective students to new ECOBIAS programmes and inform wider public about the ECOBIAS objectives and results, likewise about other activities of the host institution. Open Days are scheduled to be held before enrolment of MSc students at universities and prior to the start of implementation of LLL courses for professionals.

According to the Dissemination Report of 14th July 2021, in the period between 15th May and 15th June 2021, the first cycle of Open Day events for both MSc and LLL programmes have been organised at SUM, UDG, UNTZ, UNSA, UBL, UDG, while the first Open Day at the International University of Travnik was held before schedule, on the 5th December 2020. The focus of the Open Day in Travnik was a demonstration of a field equipment to be procured for the ECOBIAS laboratory, and the presentation of a new master study programme that is being launched. The target groups of the event were students and technical staff as well. Although partners very successfully organised the first round of Open Days which attracted a large number of interested students and professionals, it is yet to be publicised on the project website and Facebook page with short reports and photo galleries.

Additionally, **roundtables** (task 5.5) are planned to build links with stakeholders and create proactive regional strategy in the EMAB field. They are planned to be organised twice at each PC HEI in the second half of the project duration, also serving to introduce benefits of ECOBIAS-NET platform to stakeholders and facilitate knowledge and skills circulation.

5. Project activities and results

5.1. Project activities

The project is organised in 6 work packages. The first one is preparatory which directly serves two development packages, one focused on the development of new master and LLL programmes and the other dedicated to the development of the professional ECOBIAS network. They are complemented with three work packages typical for this type of the

Erasmus+ funding: WPs on quality assurance, project dissemination, and project management.

5.1.1. WP1 – PREPARATION

The WP 1 - PREPARATION is led by the University of Niš (UNI, Project partner no. 2) and Đurađ Milošević as the WP Leader. It consists of the following tasks:

- 1.1. Analysis of PgC partners Knowledge/Skills/Practice in EMAB (*task leader: Marko Miliša, UNIZG*)
- 1.2. Analysis of PC partners Knowledge/Skills/Practice in EMAB (*task leader: Vladimir Žikić, UNI*)
- 1.3. Analysis of existing curricula related to EMAB in both Programme and Partner Country partners (*task leader: Cristina Hartmann Fatu, UDE*)
- 1.4. Analysis of labour market needs relevant to EMAB in PCs (*task leader: Milica Stojković Piperac, UNI*)

As a preparatory phase of the project and the initial phase of implementation, WP1 was scheduled from M1 to M6. According to the documents available on the ECOBIAS website, the results achieved have been delivered in a timely manner:

Analysis of Programme Countries Knowledge/Skills/Practice in EMAB

The analysis was authored, and the data collection performed and interpreted, by three project partners with the aim of investigating and reporting on the knowledge, skills, and practices in ecological monitoring and bioassessment in Programme Countries (Croatia, Serbia and Germany) in order to select subject areas to be offered within new ECOBIAS curricula and LLL trainings for partner countries.

It is a comprehensive and well-prepared document, laying the ground for a tailor-made approach to priority subject areas.

Analysis of Partner Countries Knowledge/Skills/Practice in EMAB

The analysis was authored, and the data collection performed and interpreted by ten project partners, with the aim of investigating and reporting on the knowledge, skills, and practices in ecological monitoring and bioassessment in Partner Countries (Bosnia and Herzegovina and Montenegro) in order to select priority subject areas for strengthening within the ECOBIAS curricula and LLL trainings. It is also a comprehensive and well-prepared document, laying the ground for a tailor-made approach to priority subject areas, from the point of view of the Partner Countries HEIs.

Both reports, delivered under tasks 1.1 and 1.2, follow a similar structure and are based on questionnaire responses from the targeted key stakeholders. They share identical introductory part and although very thorough and data-rich, both would, however, have benefited from having an executive summary or a final section that briefly summarises the findings in a form of conclusion. Nevertheless, these reports offered valuable inputs for the

following activities under WP 1 - PREPARATION and a clear guidance how to approach the development phase of the project.

Analysis of existing curricula related to EMAB in both PgC and PC partners

The report gives a comprehensive overview and analyses the existing EMAB study programmes in both Programme and Partner Country partner HEIs, and includes an informative summary. The analysis revealed which universities in PgC (Germany, Serbia, and Croatia) and PC (Bosnia and Herzegovina, and Montenegro) systematically teach and train for ecological monitoring, what courses are taught and the number of ECTS, as well as which approaches and EMAB methodologies are widely used. It was concluded that the two partner countries can benefit from the experience and knowledge transfer from the already established programmes/modules running in the programme countries. As an appendix a helpful list of EMAB related study programmes with programme aims, learning outcomes, modules and individual courses syllabi offered at the German HEIs, in German or English, is included on the project website under the WP1 section.

Analysis of labour market needs relevant to EMAB in PCs

Analysis was done by the WP leader the University of Niš, based on questionnaires conducted on BIH and Montenegrin labour market needs. The general conclusion obtained from the research was that labour market needs were higher in Bosnia in comparison to Montenegro, when both prequalification and new job needs were considered. Nevertheless, new job offers were significantly higher in Montenegro, especially in non-governmental institutions. The highest interest was noticed for a number of skills detailed in the report.

It was duly noted that global pandemic significantly affected the number of companies where surveys were successfully conducted and that during the investigation, many problems in communication with relevant institutions appeared as a consequence of the current state of emergency and specific circumstances in the target countries. Nevertheless, the deliverable offered valuable information to navigate the project work towards a desired, meaningful and measurable impact in the region.

5.1.2. WP2 – DEVELOPMENT OF COMPETENCE-BASED MASTER CURRICULA AND LLL COURSES ALIGNED WITH EU TRENDS

The WP 2 - DEVELOPMENT OF COMPETENCE-BASED MASTER CURRICULA AND LLL COURSES ALIGNED WITH EU TRENDS is led by the University of Novi Sad (UNS, Project coordinator and partner no. 1) and Dušanka Cvijanović as the WP Leader. It consists of the following tasks:

- 2.1. Development of aims, specific competencies and learning outcomes of master curricula and LLL trainings in EMAB (*task leader: Srđan Rončević, UNS*)
- 2.2. Development of courses design and syllabus for ECOBIAS curricula and LLL trainings (*task leader: Goran Anačkov, UNS*)
- 2.3. Purchasing of literature, software and laboratory equipment, installation and activation (*task leader: Đurađ Milošević, UNI*)

- 2.4. Theme-based training of teaching staff for acquiring new EMAB methods and field techniques (*task leader: Vladimir Ranđelović, UNI*)
- 2.5. Preparation of learning materials and field protocols using ICT tools (*task leader: Antun Alegro, UNIZG*)
- 2.6. Accreditation/ approval of MSc curricula (*task leader: Avdul Adrović, UNTZ*)
- 2.7. Implementation of developed MSc curricula (*task leader: Elvira Hadžiahmetović Jurida, UNTZ*)
- 2.8. Accreditation/ approval of LLL courses for professionals (*task leader: Svjetlana Lolić, UBL*)
- 2.9. Implementation of LLL courses for professionals (*task leader: Maja Manojlović, UBL*)
- 2.10. Optimization of MSc and LLL courses based on the feed-back of enrolled participants (students, researchers, professionals) (*task leader: Dragan Škobić, SUM*).

This is the leading development work package of the project. It contains key activities and vital outcomes for the project indispensable to successfully achieve its specific objectives. It is also the work package with the largest number of tasks (10 in total) and the most intensive in regard to required time, human and financial resources. This WP is the main focus of the project and the one under which all the most critical deliverables are produced. Despite the unpredictable circumstances caused by the COVID-19 pandemic, the project consortium managed to successfully work together and effectively perform all WP2 tasks scheduled for the first half of the project. The project is on a right track with a very competent organisation of the WP2 and all contributing activities.

A range and sequence of WP2 tasks were properly planned and effectively complemented to offer an optimal approach to development of the project cornerstone – new MSc and LLL programmes in EMAB. It started from the definition of aims, specific competencies and desired learning outcomes (task 2.1) of the future master curricula and LLL trainings and continued with the development of courses and syllabi design (task 2.2). The support activity of purchasing of literature, software and laboratory equipment (task 2.3) followed together with the capacity building of teaching staff for acquiring new EMAB methods and field techniques (task 2.4). Then the preparation of learning materials and field protocols using ICT tools (task 2.5) was pursued and finally the accreditation and approval of MSc curricula and LLL programmes successfully obtained (tasks 2.6 and 2.8), complementing the upcoming activities of implementation of the developed MSc curricula and LLL courses for professionals (tasks 2.7 and 2.9) which are scheduled to start with the new academic year 2021/22.

All activities are thoroughly reported on the WP2 webpage (www.ecobiaserasmus.com/wp2-development-uns) which offers particularly detailed insights in the outcomes of the work performed on the development and design on new programmes. It also presents all trainings for teaching staff implemented so far, the elaborates for obtaining formal approval/accreditation and the approval/accreditation decisions, as well as valuable open access depository of teaching materials for newly developed courses.

Under the WP2 the following new courses are developed by the four universities from the three participating programme countries:

Programme countries HEIs	Master and LLL Courses Developed
University of Novi Sad	<ol style="list-style-type: none"> 1. Freshwater Ecology 2. Practicum in Ecology/ Botany 3. SERCON / System for evaluating rivers for conservation 4. GIS and Remote Sensing in ecomonitoring 5. Phycology 6. Environmental engineering 7. Water protection technologies 8. Freshwater microbiology 9. Aquatic and semiaquatic macrophytes 10. Field practice in aquatic botany and zoology
University of Niš	<ol style="list-style-type: none"> 11. Wetland and riparian ecology 12. Numerical Ecology 13. Conservation ecology 14. Forensic essentials in aquatic insects ecology 15. Ecological projects 16. Bioindication and biomonitoring of aquatic ecosystems 17. Methodology of science in Ecology
University of Zagreb	<ol style="list-style-type: none"> 18. Ichthyology 19. Algology 20. Practicum in Ecology/ Zoology 21. Aquatic ecotoxicology 22. Field practice in aquatic monitoring 23. Classification protocols and systems in ecomonitoring 24. Biodiversity conservation 25. Aquatic macroinvertebrates in bioassessment 26. EU and regional legislation
University of Duisburg-Essen	<ol style="list-style-type: none"> 27. eDNA monitoring

In total there are 27 new courses developed: 10 by the University of Novi Sad, 7 by the University of Niš, 9 by the University of Zagreb and 1 by the University of Duisburg-Essen. All courses are designed to reflect the identical workload which equals 6 ECTS (150-180 working hours of students per course), what is particularly pragmatic and rational at the development stage of the programmes. This approach allowed partners a much-needed flexibility to select, pick and combine freely from an entire pull of new ECOBIAS courses thus effectively reflect their particular needs and expectations from the ECOBIAS project.

The newly developed courses could be equally included both in new Master of Science and life-long learning programmes. Out of 27 newly developed EMAB courses:

- 26 courses in total are included in four new MSc curricula,
- 14 courses in total are included in LLL programmes.

The following tables provide an overview of the newly developed MSc and LLL programmes, programme titles and the list of courses included, presented by each partner country HEI:

Partner countries HEIs	MASTER OF SCIENCE PROGRAMMES DEVELOPED
<p>International University of Travnik, Bosnia and Herzegovina</p>	<p>Ecological engineering</p> <ol style="list-style-type: none"> 1. Freshwater Ecology 2. Practicum in Ecology/ Botany 3. GIS and Remote Sensing in ecomonitoring 4. Environmental engineering 5. Water protection technologies 6. Bioindication and biomonitoring of aquatic ecosystems 7. Methodology of science in Ecology 8. Practicum in Ecology/ Zoology 9. EU and regional legislation in management of freshwaters 10. Field practice in aquatic monitoring
<p>Public Institution University of Tuzla, Bosnia and Herzegovina</p>	<p>Ecological monitoring of Freshwaters</p> <ol style="list-style-type: none"> 1. Aquatic ecotoxicology 2. Freshwater ecology 3. Wetland and riparian ecology 4. Practicum in Ecology/Botany 5. Practicum in Ecology/Zoology 6. GIS and Remote Sensing in ecomonitoring 7. Conservation ecology 8. Numerical Ecology 9. Freshwater microbiology 10. eDNA monitoring 11. Field practice in aquatic monitoring 12. Classification protocols and systems in ecomonitoring 13. Forensic essentials in aquatic insects' ecology
<p>University of Sarajevo, Bosnia and Herzegovina</p>	<p>Ecological monitoring of Freshwaters</p> <ol style="list-style-type: none"> 1. Aquatic ecotoxicology 2. Algology 3. Freshwater ecology 4. Wetland and riparian ecology 5. Ecological projects 6. GIS and Remote Sensing in ecomonitoring 7. Numerical Ecology 8. Freshwater microbiology 9. System for evaluating rivers for conservation
<p>University of East Sarajevo, Bosnia and Herzegovina</p>	<p>Ecological monitoring of Freshwaters</p> <ol style="list-style-type: none"> 1. Aquatic ecotoxicology 2. Ecological projects 3. Methodology of science in Ecology 4. Freshwater microbiology 5. EU and regional legislation in management of freshwaters 6. Field practice in aquatic monitoring 7. Biodiversity conservation 8. Environmental engineering 9. Water protection technologies

Partner countries HEIs	LIFE-LONG LEARNING PROGRAMMES DEVELOPED
University of Donja Gorica (Podgorica), Montenegro	Ecological Monitoring <ol style="list-style-type: none"> 1. Numerical Ecology 2. Methodology of science in Ecology 3. EU and regional legislation in management of freshwaters 4. System for evaluating rivers for conservation 5. Field practice in aquatic botany and zoology 6. Field practice in aquatic monitoring 7. Water protection technologies
University of Mostar, Bosnia and Herzegovina	Ecological Monitoring of Freshwaters <ol style="list-style-type: none"> 1. Aquatic and semi-aquatic macrophytes 2. Aquatic macroinvertebrates in bioassessment 3. Phycology 4. GIS and Remote Sensing in ecomonitoring 5. Ichthyology 6. System for evaluating rivers for conservation 7. Field practice in aquatic monitoring
University of Banja Luka, Bosnia and Herzegovina	Ecological Monitoring of Freshwaters <ol style="list-style-type: none"> 1. Aquatic ecotoxicology 2. Aquatic and semi-aquatic macrophytes 3. Aquatic macroinvertebrates in bioassessment 4. Phycology 5. Ichthyology 6. Freshwater microbiology 7. System for evaluating rivers for conservation 8. Water protection technologies

All WP2 activities planned for the first half of the project appear to have been implemented fully in accordance with the schedule, the foreseen capacity and in the expected quality. At this phase of the project, the WP2 main outcomes are courses syllabi, equipped laboratories and developed learning materials, which have all undergone internal quality control, and the formal accreditation/approval of the new MSc and LLL programmes, which will be fully ready to enrol the first generation of students in October 2021. A short overview of each course syllabus with course objectives, intended outcomes and key literature is already available on the project website under the section Courses (www.ecobiaserasmus.com/syllabuses/).

5.1.3. WP3 – ECOBIAS -NET

The WP 3 – ECOBIAS-NET is led by the University of Sarajevo (UNSA, Project partner no. 9) and Adi Vesnić as the WP Leader. It consists of the following tasks:

- 3.1. Establishment of regional academic network in EMAB (*task leader: Zlatko Mekan, UIT*)
- 3.2. Development and updating of ECOBIAS-NET internet platform (*task leader: Nusret Drešković, UNSA*)

WP3 is a complementary development work package principally aimed to ensure long-term sustainability of the project results and enhance collaboration and partnership among

professionals in EMAB in the Western Balkans. In order to establish the ECOBIAS regional academic network and internet ECOBIAS-NET platform these ideas were organised as a separate work package. The WP3 should improve professional cooperation through networking and targeted utilization of new opportunities provided by ICT tools (internet, social networking, domain centralized database). These should facilitate and empower connecting and collaboration in EMAB field, assist search for professionals, create joint project proposals, share publications and results, serve knowledge circulation, asking questions, getting answers, and solving research problems, as well as keeping up with the latest news and research in EMAB in the WB Region.

Although WP3 was initially planned to start from October 2021, due to unpredictable circumstances caused by COVID-19 pandemic and especially as it was not clear when partners could travel and meet again to fully comply with WP2 time plan, the consortium decided to start with WP3 activities well in advance. Therefore, the task 3.1 was rescheduled a whole year ahead and organised in December 2020 when the future regional academic network in EMAB was officially launched. Likewise, time demanding tasks linked to design and development of ECOBIAS-NET internet-based platform were prosperously launched 10 months before the schedule and the platform is expected to be uploaded to the web by October 2021.

5.1.4. WP4 – QUALITY PLAN

The WP 4 – QUALITY PLAN is led by the University of Zagreb (UNIZG, Project partner no. 3) and Antun Alegro as the WP Leader. It consists of the following tasks:

- 4.1. Establishment of Quality Assurance Board (*task leader: Maja Novković, UNS*)
- 4.2. Development of Quality Assurance Plan (*task leader: Marko Čaleta, UNIZG*)
- 4.3. Regular Quality Assurance Board meetings (*task leader: Ivana Buj, UNIZG*)
- 4.4. Inter-project coaching (*task leader: Anđela Jakšić, UDG*)
- 4.5. External evaluation of the project (*task leader: Florian Leese, UDE*)
- 4.6. External financial control (*task leader: Marko Čaleta, UNIZG*)

A main purpose of WP4 is to establish a functional framework and guide continuous monitoring and evaluation of project activities and outputs against the performance indicators to ensure that the project meets its specific objectives, within the anticipated time span and the allocated budget.

Under the WP4 the **Quality Assurance Board** was established at the Kick-Off meeting held at the project start. In the first half of the project lifetime the QAB performed continual quality control of the project outputs and prepared a set of questionnaires for evaluation of specific project activities and measurement of participants satisfaction.

The **Quality Assurance Plan (QAP)** is a foundation of project QA activities. It systematises and specifies the Quality Assurance, monitoring and evaluation activities and formalizes

guidelines for partners to ensure the highest possible quality of the project activities, outputs and outcomes, and the project management itself.

The development of the QAP for was slightly delayed due to COVID-19 disruption coupled with a series of earthquakes which hit Zagreb in Spring 2020. Nevertheless, the contributing tasks were reallocated among partners, mainly UNS and UNI took over additional responsibilities to ease the burden on UNIZG, and finally in June 2020 the first QAP was adopted, and latter updated in July and October the same year.

The QAP sets the project QA framework, aims and roles of the project evaluation, indicators of achievement, approaches to project quality control, risk management as well as technical and financial reporting. The responsibility for the quality of the project is shared among partners, while QAB and external quality evaluator are declared accountable for the quality of the project implementation and invited to take suitable corrective measures to improve the quality of processes, procedures, and outcomes, respecting the project hierarchy. Furthermore, QAP appoints each contributing individual: task leaders, partners involved in activities and co-authors, and work package leaders with a very clear and detailed list of responsibilities. Finally, it also settles the roles of other relevant bodies, namely Quality Assurance Board, Steering Committee and Management Board, in the project QA.

QAP establishes Indicators of Achievement (IoA) for the general and specific objectives and each expected result. Likewise, it sets internal monitoring plan including self-evaluation to be carried out by all partners against the project intervention logic (LFM), workplan, budget, reports from monitoring visits of the National Erasmus+ offices and external evaluator, as well as feedback collected by questionnaires/satisfaction surveys of target groups (e.g. participants of training and dissemination events).

The project specifies QA strategy with three levels of internal quality control: (1) activity level: deliverable authors, task leaders, and WP Leaders, (2) Quality Assurance Board, and (3) Steering committee as the project decision-making body. The external quality monitoring is within the roles of an external evaluator, responsible National Erasmus+ Offices and EACEA, taking care of the quality in three subsequent project stages: preventive (in the first project year), advisory (after the first project year), and control (after the end of the project – sustainability check).

The QAP provides project partners with user-friendly, comprehensive, descriptive and accurate framework for project quality management. Roles and responsibilities of internal and external actors are clearly apportioned and easy to follow, with precise timeframes for continual quality monitoring and control actions. Quality of deliverables and ECOBIAS documents is addressed with particular attention and offers a set of fully prepared templates. The ECOBIAS textbooks standard introduces in-depth instructions for authors to supplement the ECOBIAS textbook template. Moreover, it embraces the Open Education mindset of the

British Columbia Campus¹ and its five corresponding rules, clearly demonstrating a commitment to help improve the learning experience for EMAB students and professionals in the region while mitigating financial barriers which keeps them from achieving their academic goals.

Authors of 27 new EMAB courses are supported with instructions for authors which serve as template forms for writing ECOBIAS textbooks, as well as with additional template ECOBIAS Reviewer Form which serve for internal quality control of the prepared textbooks. Internal peer reviewers are effectively guided in their endeavours to assess structure and content and fine technical aspects of the textbooks, ensuring that each deliverable of that kind fully complies with the prescribed quality standard.

Likewise, a particularly strong point of the QA approach is a list of ready-to-use document templates:

- Attendance list
- ECOBIAS Meetings Evaluation Form
- ECOBIAS Training Evaluation Form
- ECOBIAS Workshop Evaluation Form
- Summary of the Participant Feedback Form for Training
- Summary of the Participant Feedback Form for Meeting/Workshop/Conference
- Participant Feedback Form for ECOBIAS Round Table
- Summary of the Participant Feedback Form for Round Table
- ECOBIAS Open Day Feedback Form
- Summary of the Participant Feedback Form for Open Day
- Event Report
- Quality Assurance Check List for Review of Deliverable.

Finally, the QAP considers also quality details about promotional materials, project website and events, and lays down basic principles of project risk management and reporting. What is more, it has introduced internal epidemiological rules to monitor health data of attendees in project meetings held face-to-face, intending to diminish risks and limit any possibility of spreading SARS-CoV-2 infection.

In addition to project-made templates that serve project participants to easily adopt the expected quality standards and reporting procedures, the project website offers convenient and handy templates for Erasmus+ administrative and financial reporting: financial statements, table of achieved results, individual travel report, timesheet template and joint declaration. These play vital part in ensuring that all project partners are equipped with needed support to meet the required quality in administrative and financial reporting.

¹ Open educational resources (OER): “teaching, learning, and research resources that, through permissions granted by their creator, allow others to use, distribute, keep, or make changes to them.”, <https://open.bccampus.ca/what-is-open-education/>

Regular **QAB meetings** are held at least twice per year. In between the meetings QAB members are continuously involved in quality control and formal approval of all project outputs (e.g. deliverable, report) prior to their upload at the project website and/or delivery to the EACEA.

According to the project proposal two **inter-project coaching** events were planned, one already held in November 2020, and the other scheduled for the second half of the project, namely M11 2021. The first inter-project coaching was organised as a set of online discussions with other projects which were coordinated by the University of Novi Sad. It dealt with challenges of coordination of ERASMUS + projects and capacity building in higher education. This meeting was attended by four projects CULTURWB, ART-REM, SENVIBE and ECOBIAS and helped ECOBIAS to learn from the practice of projects funded under previous Erasmus+ calls.

As stated in the QAP, the external evaluator, responsible National Erasmus+ Offices and EACEA are all, in their individual capacity, involved in **external quality monitoring**. During this reporting period the project had three monitoring visits carried out in the partner countries by:

- National Erasmus+ Office in Montenegro – the first field monitoring meeting was organised virtually via Zoom Platform on July 16, 2020,
- National Erasmus+ Office in Bosnia and Herzegovina on December 18, 2020 at the Faculty of Natural Sciences and Mathematics of the University of Banja Luka,
- National Erasmus+ Office in Montenegro – the second field monitoring meeting held on July 6, 2021 at the premises of the University of Donja Gorica.

The feedback notes provided particularly complimented the project for re-scheduling activities and promptly adapting to new circumstances in order to prevent delays. The EACEA also acknowledged, in one of the e-mail communications, that the project was dealing quite well with the restrictions imposed by the pandemic and that activities were carried out as scheduled, with some minor changes.

In regard to **external evaluator** of the project, the proposal correctly anticipated that some delay in subcontracting may occur. The project consortium intended to ensure continual external monitoring and evaluation from the very beginning of the project implementation. In that sense, the external quality evaluator was appointed at the Kick-Off meeting. In succeeding months the state of affairs changed and the appointed external evaluator did not take charge. The project coordinator, in consultations with the Project Management Office of the University of Novi Sad and the EACEA Project Officer, opened a call for Expression of Interest for ECOBIAS project peer reviewer. A new external evaluator was selected in mid-July 2021. A fruitful collaboration between the external evaluator and the project management team was established already at the inception meeting. It is based on the principles of open communication, continual assistance, timely and comprehensive feedback to each question and request, allowing for all essential external evaluation activities to be successfully met within only 45 days from the beginning of the assignment so that the Mid-term External Evaluation Report is delivered timely and in the expected capacity.

5.1.5. WP5 – DISSEMINATION & EXPLOITATION OF RESULTS

The WP 5 – DISSEMINATION is led by the Public Institution University of Tuzla (UNTZ, Project partner no. 8) and Jasmina Kamberović as the WP Leader. It consists of the following tasks:

- 5.1. Preparing project dissemination plan (*task leader: Dušanka Cvijanović, UNS*)
- 5.2. Setting and updating of Project site (*task leader: Dušanka Cvijanović, UNS*)
- 5.3. Design, printing, recording and publishing promo material (*task leader: Maja Novković, UNS*)
- 5.4. Workshops at Partner Country HEI (*task leader: Zlatko Mecan, UIT*)
- 5.5. Round tables with stakeholders (*task leader: Sandra Tinaj, UDG*)
- 5.6. Open day at each Partner Country HEI (*task leader: Marija Vugdelić, UDG*)
- 5.7. Workshop and Summer School in DNA Metabarcoding at University of Tuzla (*task leader: Adisa Ahmić, UNTZ*)
- 5.8. Final Conference on ECOBIAS (*task leader: Vedad Pašić, UNTZ*)

The ECOBIAS **Dissemination plan** was devised as planned, by May 2020, while the second revised version was created in March 2021. It states that the dissemination of all ECOBIAS project related information, activities and deliverables will start at the beginning of the project lifetime, continue during the project realisation, and carry on after its completion.

The main goals of Project ECOBIAS dissemination were identified as:

- Transfer of knowledge to university staff and professionals in EMAB using Open Education Resources;
- Popularisation of ECOBIAS platform to EMAB professionals and wider public;
- Informing of students regarding new MSc study programmes;
- Informing of EMAB professionals about the LLL courses;
- Promoting of the project outputs and outcomes at local, national and European level.

The Dissemination plan lays down the general dissemination rules, the use of project visual identity, logo and templates, and the management structure within WP5 (work package and task leaders). It is commendable that there is a detailed section dedicated to the sustainability activities of the ECOBIAS project and how they will also be an important dissemination tools:

- ECOBIAS project website,
- ECOBIAS-NET internet platform,
- ECOBIAS MSc and LLL courses,
- new laboratories for EMAB,
- summer school in DNA metabarcoding.

A number of templates are provided within the Dissemination plan that should assist project partners to organise and host project dissemination activities and events, and collect participants' feedback. These templates have been approved under the WP4 – QUALITY PLAN and are fully in line with the project activities, expected dissemination scope and impact.

The **project website** www.ecobiaserasmus.com was designed and launched on time. It has 10 sections in the main toolbar (Home, Platform, Project, Consortium, News and Events, Courses, Deadlines, Work packages, Management, and Contact) with half of them being further

branched in more individual thematic pages. It is easy to navigate offers plenty of project-related info and attachments ready for download. The ECOBIAS website has been visited more intensively than expected with average of 800 pageviews per month, 30 per day (compared with anticipated min. 20 visit per month), attracting mainly visitors from the WB region.

To support local communication and spread clear messages about the project to students, colleague employees and other potentially interested public, all partners have published a short summary of ECOBIAS project on their official institutional webpages. The project is also publicised on the Facebook. Its official page www.facebook.com/EcobiasErasmus currently has more than 500 followers and total reach of 13.000 people who saw any content from the page.

Visual identity and project logo were designed on the project start and complemented with the written Guidelines for the use of project colours and fonts. Additionally, ECOBIAS templates for documents in MS Word and presentations in Power Point were prepared and uploaded, all easily accessible on the project website under section Management/ECOBIAS templates (www.ecobiaserasmus.com/ecobias-templates/).

Many early **printed promotional materials**, including banners, posters, pens, paper bags, notebooks and notepads were printed for the occasion of the Kick-Off meeting and distributed to the participants. Afterwards promo material was regularly distributed at the dissemination and training events, as well as at the management meetings. Furthermore, for the Open Day events custom posters and leaflets were designed and printed.

Two **workshops** were organized in the first phase of the project, as was planned. The third should be delivered by 15.11.2021, guided by a project timetable. The first workshop „Establishment of regional academic network in EMAB” was held at 14th and 15th December 2020 at IUT. This event was dedicated to the transfer of knowledge in EMAB, making the ECOBIAS platform plan and networking with the participants in EMAB. Second workshop “New trends in ecological monitoring and aquatic bioassessment” was held at UNTZ in June 2021. The aim was the transfer of knowledge in EMAB and popularisation of new ECOBIAS MSc study programmes and LLL courses to students and professionals in EMAB. Target groups of these events were teaching staff, students, administrative staff, EMAB professionals and EMAB stakeholders, local community, fishing, lumber and water supply industries, as well as tourism sector. These events were carried out both in English and local languages: Bosnian, Serbian and Croatian. Both events attracted higher interest than expected, the first one was attended by 49 participants and the second by 63.

In the period between 15th of May and 15th of June, the first cycle of **Open Days** events for master curricula and LLL courses in EMAB for the Western Balkans HEIs were organised at SUM, UDG, UNTZ, UNSA, UBL, UDG. Open Day at the International University of Travnik was organised before time, on the 5th of December 2020. The interest among prospective students and professionals was high, as well as their satisfaction rate with the event (large majority

evaluated the Open Day event as extremely helpful). The main goal was undoubtedly fulfilled: prospective students and professionals were familiarized with the new courses and other relevant information in regard to ECOBIAS programmes and networking opportunities.

It can be concluded that in the first half of the project lifetime, project communication and dissemination were very successful. The delivered activities were relevant for the project dissemination objectives. They were implemented effectively and have made the desired impact among the target groups. In most cases, indicators of success of dissemination activities were several times higher than planned, for example in media visibility, social networks, number of participants in workshops and Open Days, announcements of project activities on the websites of partner institutions. The Dissemination Report (1st project internal reporting 15/01/2020 – 14/07/2021) has been produced by the WP5 leader, UNTZ. It has provided a detailed evaluation of each dissemination activity from the workplan. It is exceptionally well-done and elaborate with indicators of successful dissemination for each task and deliverable.

5.1.6. WP6 – MANAGEMENT

The WP 6 – MANAGEMENT is led by the University of Novi Sad (UNS, Project partner no. 1) and Snežana Radulović, Project Coordinator and the WP6 Leader. It consists of the following tasks:

- 6.1. Establishment of management board and Kick-off meeting (*task leader: Goran Anačkov, UNS*)
- 6.2. Development of guidelines on the project management and reporting (*task leader: Đurađ Milošević, UNI*)
- 6.3. Day-to-day coordination of project activities (*task leader: Snežana Radulović, UNS*)
- 6.4. Regular Steering Committee and Project Management meetings (*task leader: Dušanka Cvijanović, UNS*)
- 6.5. Submission of interim and final reports (*task leader: Snežana Radulović, UNS*)

The main task of the WP6 was to establish management structures and facilitate smooth governance, organisation and implementation of the project. The first two tasks were successfully implemented at the project opening, while the following two continue to strongly support the project on its course to effectively achieve the set objectives. Up to now 9 management-related meetings were held, plus two meetings specifically dedicated to individual WPs. Measured in number and quality of the project outcomes already delivered, a day-to-day coordination proves to be very well suited, effective and rewarding.

A much more detailed assessment of the project management structure and procedures is given in section 4 Project management and collaboration starting on the page 10 of this report.

5.2. Project schedule and timeline

To assist project partners in effective time management the project website wisely offers a section Deadlines which is included among the main toolbar options. It is particularly useful for work package and task leaders and contributing task members to access key delivery dates quickly and keep track of the project delivery, while also allowing project internal and external monitoring to effortlessly maintain an overview of the delivery dates, and delays if any.

The table below summarises the delivery dynamic of the activities scheduled to produce outputs in the first half of the project duration.

	WORK PACKAGE/ TASK	START	END	DELIVERABLE	STATUS
WP1	PREPARATION				
1.1.	Analysis of PgC partners Knowledge/Skills/Practice in EMAB	15.01.2020	15.04.2020	Report	Reported on time 28.03.2020
1.2.	Analysis of PC partners Knowledge/Skills/Practice in EMAB	15.01.2020	15.04.2020	Report	Reported on time 25.03.2020
1.3.	Analysis of existing curricula related to EMAB in both PgC and PC partners	15.01.2020	15.04.2020	Report	Reported on time 15.03.2020
1.4.	Analysis of labour market needs relevant to EMAB in PCs	15.04.2020	15.06.2020	Report	Reported on time 15.05.2020
WP2	DEVELOPMENT				
2.1.	Development of aims, specific competencies and learning outcomes of master curricula and LLL trainings in EMAB	15.04.2020	15.09.2020	Report	Reported with slight delay on 03.02.2021 due to alignment with accreditation
2.2.	Development of courses design and syllabus for ECOBIAS curricula and LLL trainings	15.06.2020	15.03.2021	Report	Reported on time First draft submitted to UNS on 01.11.2020
2.3.	Purchasing of literature, software and laboratory equipment, installation and activation	15.05.2020	15.01.2022	Report	Ongoing (Upgoing bill numbers will be available by 15.01.2022)
2.4.	Theme-based training of teaching staff for acquiring new EMAB methods and field techniques	15.09.2020	15.09.2021	8 training events	Ongoing
2.5.	Preparation of learning materials and field protocols using ICT tools	15.02.2021	15.09.2021	Learning materials	Before time 15.5.2021
2.6.	Accreditation/approval of MSc curricula	15.10.2021	15.05.2022	Report	Successfully obtained
2.7.	Implementation of developed MSc curricula	15.09.2021	14.01.2023	Report	Upcoming from October 2021
2.8.	Accreditation/approval of LLL courses for professionals	15.10.2021	15.05.2022	Report	Successfully obtained

2.9.	Implementation of LLL courses for professionals	15.09.2021	15.11.2022	Report	Upcoming from October 2021
2.10.	Optimization of MSc and LLL courses based on the feed-back of enrolled participants	15.07.2022	15.09.2022	Report	Upcoming
WP3	ECOBIAS-NET				
3.1.	Establishment of regional academic network in EMAB	15.10.2021	15.12.2021	Report	ECOBIAS academic network established in December 2020 well before the schedule
3.2.	Development and updating of ECOBIAS-NET internet platform	15.10.2021	14.01.2023	Internet platform	Started 10 months earlier, expected to be uploaded in October 2021
WP4	QUALITY ASSURANCE				
4.1.	Establishment of Quality Assurance Board	15.01.2020	15.02.2020	Meeting minutes	On time at Kick-Off 10-11.02.2020
4.2.	Development of Quality Assurance Plan	15.02.2020	15.03.2020	Quality Assurance Plan	Slightly delayed, first document delivered in June 2020
4.3.	Regular Quality Assurance Board meetings	15.03.2020	14.01.2023	Meeting minutes	When needed
4.4.	Inter-project coaching	15.12.2020	15.12.2021	Report	One implemented in November 2020 The other upcoming 15.11-15.12.2021
4.5.	External evaluation of the project	15.04.2021	15.07.2021	Report	External evaluator selected in July 2021; task will continue until the project end
4.6.	External financial control	15.04.2021	15.07.2021	Report	External financial auditor will be selected after the Interim Report; task will continue until the end of the project
WP5	DISSEMINATION				
5.1.	Preparing project dissemination plan	15.02.2020	15.05.2020	Dissemination plan	On time
5.2.	Setting and updating of Project site	15.02.2020	14.01.2023	Project website	Launched on time 11.02.2020
5.3.	Design, printing, recording and publishing promo material	15.03.2020	15.12.2022	Promo material	Ongoing
5.4.	Workshops at Partner Country HEI	15.12.2020	15.11.2021	Workshop event	First two delivered, third one upcoming in 15.10-15.11.2021

5.5.	Round tables with stakeholders	15.07.2021	15.06.2022	Round table events	Upcoming I 15.07-15.09.2021 II 15.04-15.06.2022
5.6.	Open day at each Partner Country HEI	15.05.2021	15.06.2022	Open day events	First round delivered, two upcoming: II 15.09-15.10.2021 III 15.05-15.06.2022
5.7.	Workshop and Summer School in DNA Metabarcoding at University of Tuzla	15.07.2022	15.09.2022	Summer School	Upcoming in August/ September 2022
5.8.	Final Conference on ECOBIAS	15.11.2022	15.12.2022	Final Conference	Upcoming in December 2022
WP6	MANAGEMENT				
6.1.	Establishment of management board and Kick-off meeting	15.01.2020	15.02.2020	Meeting minutes	On time
6.2.	Development of guidelines on the project management and reporting	15.02.2020	15.03.2020	Management guidelines	On time
6.3.	Day-to-day coordination of project activities	15.01.2020	14.01.2023	Project correspondence	Ongoing
6.4.	Regular Steering Committee and Project Management meetings	15.03.2020	15.12.2022	Meeting minutes	Ongoing
6.5.	Submission of interim and final reports	15.10.2020	14.01.2023	Report	According to schedule

The project effectively managed to meet the planned schedule despite the disturbance caused by the COVID-19 pandemic which hit when the project just started. The project management adapted fast and skilfully guided the transition to online collaboration platforms, so the delays were minimal, if any. Almost all project activities planned for the first half of the project duration were implemented in full accordance with the project timetable. The only minor delays were noted within the WP4 with delivery of the Quality Assurance Plan due to Force Majeure, which was successfully solved with allocation of tasks among contributing partners, as well as with the start of external evaluation, which was also reasonably resolved and the deadline for the first report was slightly postponed, so the expected scope and quality of the assignment were completely attained.

At the same time, WP2 activities at some of PC HEIs were fulfilled even before the deadline, like purchasing of literature, software and laboratory equipment, preparation of learning materials and field protocols, as well as formal approval/accreditation of the new MSc and LLL programmes, for which preparatory works began 12 months earlier than initially planned. Finally, the WP3 started one year earlier aiming to channel opportunities still left when the COVID-19 restrictions hit their peak, using the lessons already learned and the optimism shared within the informal network which emerged around the consortium. The regional

academic network in EMAB was launched in December 2020, while the ECOBIAS-NET internet platform is almost fully developed and will be uploaded in October 2021.

The project scheduling for the remaining project period appears stable, convincing and feasible. The single recommendation is to formally update the WP4 planned completion dates for external evaluation and financial control (tasks 4.5 and 4.6) as these activities continue until the project closure.

5.3. Project results

The ECOBIAS project results and outcomes scheduled to be delivered in the first half of the project duration are all achieved through partnership and effective implementation of a coherent and comprehensive set of interconnected activities.

The results obtained so far are relevant to the project context and beneficiaries, they are achieved fully aligned with the project plan, expected scope and quality. The desired change against the initial situation in EMAB filed is already measurable, while positive outcomes of the project which will be produced in the upcoming period are already with a great certainty expected to continue even after the project ends.

The intermediary results like various project guidelines, plans and templates were delivered in the first months of project lifetime allowing for effective governance, management, quality assurance and dissemination processes to take place. A set of analyses produced under WP1 permitted WP2 activities to flourish in full capacity and address the emerging needs of each participating HEIs. 27 new courses were designed, combined and integrated in 4 new MSc curricula and 3 new LLL training programmes. The laboratories and libraries are advanced with new state-of-art pieces, while learning materials are in their final stage of quality assessment. The elaborates for formal approval/accreditation of new programmes were prepared earlier and positive decisions are already obtained. The dissemination milestones are successfully reached, and the project attracted interest both online and offline.

A most recent field monitoring visit by the National Erasmus+ Office in Montenegro carried out to the ECOBIAS project in July 2021 at the UDG confirms that the project implementation is going well and in accordance with the original workplan, plus some of the project activities are even implemented in advance (e. g. the start of the accreditation procedure), while no challenges or obstacles in the implementation of the project activities could be identified. The written report note further tells that the “project is really an example of a successful implementation process and all future activities within the project should also be implemented in this way, i.e. in an efficient and timely manner. It can be perceived that the cooperation among partners, both local ones, as well as at the level of consortium is very good.”

All these clearly speak in favour of a highly efficient and successful implementation process, which has not been delayed by current circumstances caused by the COVID-19 pandemic.

6. Project dissemination and communication

6.1. Dissemination and external communication

The Dissemination Report (1st project internal reporting 15.01.2020 – 14.07.2021) shows that the chosen dissemination tools were relevant for the target groups and effectively used to make desired impact.

The project website was designed and launched on time at the address www.ecobiaserasmus.com. It is very informative and plays bifold role being powerful tool for internal coordination and support, and serving as the main point of external communication and dissemination. It stores all project guidelines, plans, standards and templates to serve project partners in fulfilling their roles and duties, without wasting their time on doubts how to proceed or which template to use. On the other hand, the project website offers general project info, various project reports and meeting minutes, as well as short overviews of ECOBIAS MSc and LLL programmes and each newly developed course. In this sense, the website operates as a key instrument for wide project communication to general public, and particularly to prospective students and professionals potentially interested to enrol new project programmes. Additionally, a comprehensive set of project templates freely accessible on project website may work as a good practice sharing one-stop-shop and assist other Erasmus+ projects in their management and quality assurance.

The project website has been visited more intensively than expected with average of 800 pageviews per month, 30 per day (compared with anticipated min. 20 visit per month), mainly from the WB region. Moreover, all partners have published a short summary about the ECOBIAS project on their official institutional webpages.

The project official Facebook page www.facebook.com/EcobiasErasmus is a more flexible virtual tool that supports interactive project communication especially with younger generations, that are potential target group to enrol new courses. It offers a multimedia project environment publishing posts and short descriptions about project events and activities, posting media appearances and links to YouTube project-related videos, and uploading galleries with high-quality professional photographs which testify about scenes, feeling and impressions of the project attendees. The ECOBIAS Facebook page currently has more than 500 followers and total reach of 13.000 people who saw any content from the page. Both data linked number of visits and interaction with the project website and Facebook page are expected to again increase as the upcoming project period will be more intensively in outward activities and attracting attention of prospective students and interested professionals and academics.

The project website is without doubt very actively used and filled with various useful data and reports. For example, webpage dedicated to WP2 is filled with a number of reports and documents produced with tremendous efforts invested by the whole consortium. A special praise should be given to uploading new textbooks and learning materials produced under the project and allowing open access to these valuable resources region-wide. On the other

hand, some pages may require a bit more attention and to be updated with the latest project developments. WP4 could be updated with feedback obtained from the project trainings, workshops and other events participants, while WP3 page may be expanded with more details about the regional academic network in EMAB and a friendly navigation tool to different types of collaboration opportunities.

The project has organised a series of dissemination events, including two thematic workshops and the first cycle of Open Day events at each of PC universities to advertise and promote new MSc and LLL programmes in EMAB field (more details provided under sections 4.2.3 Project events, trainings, workshops, roundtables, and open days and 5.1.5 WP5 – DISSEMINATION & EXPLOITATION OF RESULTS of this report). All planned dissemination events exceeded expectations in regard to number of attendees and interest raised.

Concerning the media coverage during first half of the project lifetime 36 media appearances were recorded in total: 12 on television, 16 on YouTube, 7 on online portals, and at least 2 in printed media. This 20% more than initially planned for the period.

The upcoming phases of students' enrolment (WP2), official launch of project internet platform as well as the established academic network (WP3) are yet to further utilize the project's communication channels and to boost dissemination actions, including the upcoming roundtables with stakeholders, remaining workshops and Open Days, summer school and final conference. Moreover, the potentials of project dissemination beyond the internet realm, in local newspapers, TV and radio could be additionally explored as the needs to target active stakeholders and partners gradually emerge towards the project end.

6.2. Internal communication and collaboration

The project website with many meeting reports, supporting documents and guidelines integrated in the webpages confirms that the project consortium maintains regular and effective communication. Since the COVID-19 outbreak intensified use of digital communication and collaboration tools worldwide, the project also embraced online applications like MS Teams, Zoom, Dropbox, Google suite (Drive and Workspace) and others to facilitate real-time communication, documents sharing and joint work.

The Guidelines on the project management and reporting have established a relevant, effective and promising framework to support fruitful communication and collaboration, and mediate to any conflict that may emerge among partners. The interviews with project UNS team reveal a positive spirit in which the project is coordinated and radiating enthusiasm about project partnership, results and impact. The manners in which deliverables were framed indicate high level of involvement of project partners, what is usually directly connected with notable level of satisfaction and their true commitment to the project. To gauge the overall satisfaction of the consortium with the way of management, cooperation and problem solving, a short online survey with 14 questions was launched beginning of August 2021 on Google Forms platform. The questions were mainly multiple-choice ones, with only two open questions asking participants to formulate their answers. Although it was

prime holiday season 23 out of 36 active ECOBIAS team members managed to respond. The obtained results demonstrate remarkably high satisfaction among project participants with the project implementation and collaboration.

All of the respondents are satisfied with the overall ECOBIAS project experience, among which 87% confirmed very satisfied. The same proportion thinks that the project is managed exceptionally well, while amazing 100% is very satisfied with collaboration among partners, as well as with the project coordinator, and confirms being recognised for their roles and contributions to this project. Moreover, all respondents confirmed to be provided the information they needed and when needed to fulfil their tasks and assignments, and 20 of them said they had learned a lot during the project. More than 80% checked satisfied when asked about the communication and collaboration tools used. Asked to assess the project dissemination so far the use of internet and social media were rated successful and highly successful, while they recognised field for slight improvements in project visibility in newspapers, TV and radio. Moreover, almost 80 % confirmed their institutions are fully aware of the project objectives, activities, challenges and results, while all participants unanimously voted that the project greatly responded and adapted to the COVID-19 global pandemic.

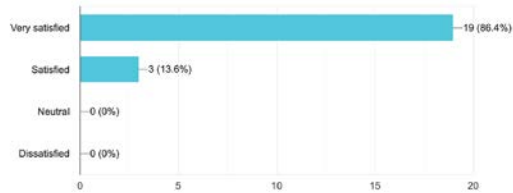
The two open questions revealed what project participants think went well and could be done again. They are particularly satisfied with the project coordination, training events and field practice and in particular the way project handled Covid lockdowns. The project is being implemented according to the plan and there is a hope to maintain a collaborative network through various projects. The coordinator team is praised for doing an excellent job in informing consortium, helping with problems, make partners aware of delays and how to deal with COVID-related issues The exchange of knowledge and experience through managerial meetings and trainings was very useful and there is a positive expectation from future networking. The partners are also satisfied being provided with translations where needed and that the tendering procedure was very successful although it was rather complicated due to joint tender approach. The project team is again honoured as very professional and kind. There is a strong belief that *excellent* is the best word to describe the project implementation and collaboration so far and that the consortium just needs to continue as before.

The answers provided to the other open question which aimed to gauge what had not gone well, so could be done differently and improved in the future again just confirmed that the consortium is exceptionally happy with the project. Here they repeated that the project is great, and everything should be realised exactly in this way, that they cannot think of anything that could be done differently, and hardly could imagine that somebody could better manage such a project. The only regret was missed opportunities to meet in person due to COVID-19 travel restrictions, with a wish to repeat trainings which were held online in live setting once it is possible again.

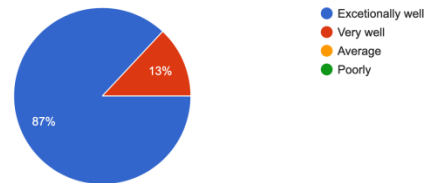
Finally, asked how positive they feel about reaching full project results until the end of the project and the sustainability 78% declared as extremely positive, 17% are very positive, while only one respondent is concerned.

The graphical overview of the questionnaire results is presented below:

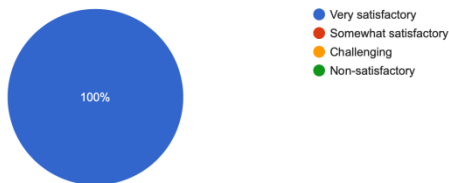
How would you rate your overall ECOBIAS project experience and satisfaction?
22 responses



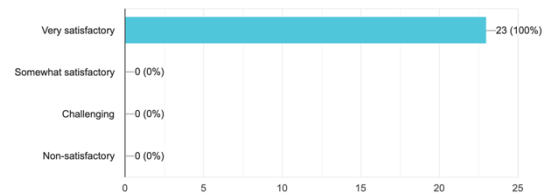
In your opinion the ECOBIAS project is managed
23 responses



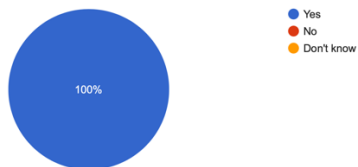
The collaboration with ECOBIAS project partners has been
23 responses



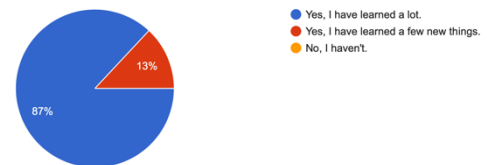
The collaboration with the Project Coordinator
23 responses



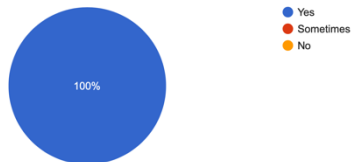
Were you recognized for your role and contribution(s) to this project?
23 responses



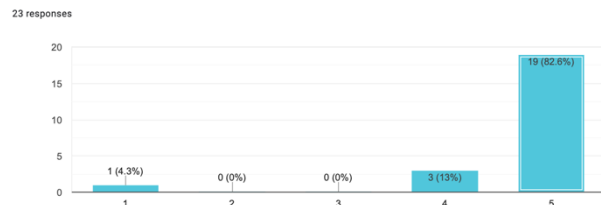
Has any new learning taken place for you on this project so far?
23 responses



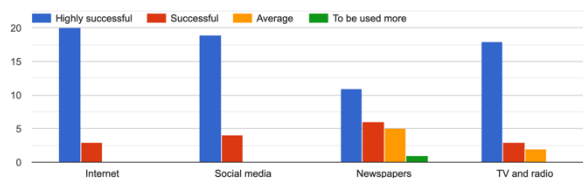
Do you get the information you need when you need it to fulfil your tasks and assignments?
23 responses



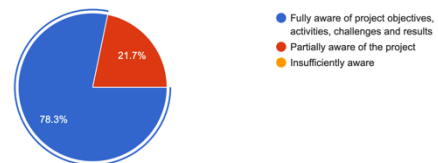
How satisfied are you with the communication and collaboration tools at your disposal (MS Teams, project website, platform, Dropbox, Drive, etc.)?
23 responses



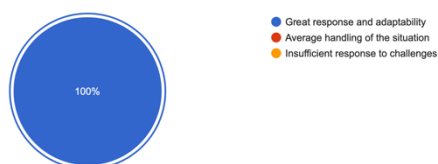
How successful the project dissemination has been so far?



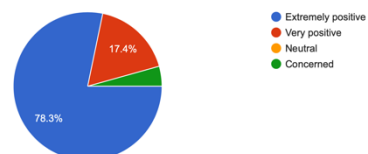
How would you rate the overall awareness of your institution about the ECOBIAS project?
23 responses



How would you assess the project response to the COVID-19 global pandemic and its implication on tasks and activities
22 responses



How positive you feel about reaching full project results until the end of the project and their sustainability?
23 responses



7. Conclusions and recommendations

The ECOBIAS project has produced a useful set of valuable outputs while being still right in the middle of its lifecycle. Activities have been implemented according to the workplan, in expected scope and quality. A strong functional framework for project management and governance was set right from the beginning and has played one of the backbones for successful implementation. The management team proved experienced, flexible and professional. Consortium partners worked closely to yield best results and ensure that project successfully meets its objectives.

This first 1,5 years of project implementation were truly intensive and required all partners to be fully devoted. Under the essential development work package 27 new courses were designed and organised in 4 new master curricula and 3 new life-long learning programmes. 7 new laboratories were equipped, appropriate literature and software purchased, and installed. The learning materials for new courses are prepared and under final quality review, while half of the trainings for teaching staff were already accomplished.

The internal project organisation was nicely integrated within project frameworks for action and quality assurance and particularly well-suited to the project ambition and consortium composition. A clear delegation of responsibilities and accountabilities among partner institutions and individuals has been arranged allowing for smooth project management and monitoring. The project has raised interest of academic and professional public, the workshops and Open Days attracted more attendees than anticipated. Likewise, the total number of project website visits and Facebook page reach exceeded expectations.

In the table below there are listed key progress monitoring indicators related to the previous project period:

Progress indicators	Obtained results
<p>The increase in quality of regional cooperation in education and research regarding ecological monitoring and aquatic bioassessment</p>	<p>The close collaboration in development of new MSc and LLL Programmes and other related project activities are particularly promising and convincingly integrated to allow the project to successfully reach this objective, inducing the expected number of graduates and professionals trained by the end of the project and extend even beyond the expected targets with new joint initiatives, proposals and publishing.</p> <p>Likewise, the upcoming activities under WP3 are well-formulated and carefully prepared to initiate new regional cooperation in EMAB education and research through dedicated regional academic network in EMAB and ECOBIAS-NET internet platform under construction.</p>

At least 26 novel master courses and learning materials developed by M8 2021, and implemented by M12 2022	27 novel courses are designed and developed. In total 26 courses are included in four new master curricula. 14 courses are integrated in three new LLL programmes. All new MSc and LLL programmes are all well-balanced and coherent, effectively addressing the gauged of needs of sustainable regional development and local labour markets.
At least 14 novel LLL courses and training materials developed by M8 2021, and implemented by M10 2022, accredited by M4 2022	Learning materials are prepared and all conditions are met for successful enrolment of the first generation of MSc and LLL students. The formal accreditation/approval in successfully concluded, and the start of the programmes is scheduled for October 2021. The positive outcomes are expected with great certainty.
At least 68 members of WB PC teaching staff trained by M8 2021	Fully in agreement with the project schedule, with trainings delivered both live and online (so far 17 training delivered) and 62 members of PC teaching staff are successfully trained.
7 new and up-to-dated laboratories designed and equipped by M12 2020	Laboratories at 7 PC HEIs are equipped, the intended pieces of state-of-art equipment are purchased and installed, ready to be used in teaching process.
4 master curricula in EMAB developed, implemented and accredited/approved by M4 2022	The accreditation elaborates for all 4 MSc programmes at four partner universities in Bosnia and Herzegovina were prepared and formal approval obtained.
At least 28 students enrolled in new master curricula by M9 2021	The attendance rate of the first cycle of Open Day events was above the expected and the interest among prospective students was particularly high. It is likely that the first generation of ECOBIAS master students will exceed the projection.

In addition to these related to the project progress monitoring indicators, other key aspects of the project management and collaboration should be also emphasised:

- The project management framework was set professionally from the project very beginning. All necessary steps were well-timed to enable and keep smooth implementation of project activities and guide contributing partners in accordance with the accepted project schedule. The management structure follows a functional matrix approach with three management levels considering the organisation of the project content (level of tasks, work packages and finally project itself) combined with clear allocation of tasks and responsibilities at the institutional level as well. The

coordinator and her team maintain close collaboration with all partners especially in regard to administrative, financial and reporting issues.

- The COVID-19 outbreak unavoidably affected the project and especially its mobility plan. However, the coordinator and the consortium managed to make full use of alternative collaboration platforms, embrace online tools available, and invest extra efforts to deliver project activities timely and fully in accordance with the schedule, not postponing the planned actions. Live meetings were held whenever possible respecting the highest epidemiological standards.
- Partnership is considered to be a great success by the consortium members. Satisfaction with project collaboration, both with the coordinator and within other consortium members is exceptionally high. The partners particularly appreciate knowledge and skills sharing and clear guidance provided at each point of the project implementation. They exhibit remarkable motivation to endure delivering expected contribution without delays and meeting project objectives on time, in estimated scope and quality and hope to continue fruitful collaboration beyond project.
- Project visibility is already very satisfactory. Visual identity, project logo, and visibility guidelines are available from the project opening, being later complemented with a substantial set of document templates and ready to use forms. The project captured media interest 20 % higher than expected for this previous period. The dissemination events, including project workshops and Open Days were very successfully organised locally, attracting increased interest among all targeted audiences.
- ECOBIAS website is user-friendly and allow easy navigation between sections. It was uploaded on time, packed with many relevant documents, reports and meeting minutes, and regularly updated with new deliverables and events organised. It offers many useful documents to be exploited both internally by project partners in fulfilling their project roles and duties, and by external public learning about the project, its actions and outcomes. It also provides direct access to project workplan with activities description and internal deadlines. Project Facebook page is also active and regularly maintained sharing relevant news and updates and posting high quality photos to testify about past project events.
- The approaches to solving collaboration problems and conflict resolution are particularly well-built around underlying principles of transparency regarding organisation of the work and finances and clear delegation of tasks and assignments, flexibility, respect, equality and diversity in communication. It encourages learning from the peers, what reassures that the project will find a way to learn from the problems and disputes faced and seek win-win solutions. The communication problems which emerged between coordinator team and one partner institution were successfully mediated and did not escalate, promoting positive communication effective overcoming of any misunderstanding.

Recommendations for additional advancements of the ECOBIAS project during the project and beyond its end:

- NUMBER OF ECTS PER COURSE

Each course is designed to engage the same number of study hours (student workload) and equals 6 ECTS. That means that each course is planned for 150 – 180 workhours of students.

The standardisation of the ECTS distribution in the development phase of the ECOBIAS courses might have helped partner universities to pick individual courses and combine them to design their specific master and life-long learning programmes. In this initial phase of the new programmes introduction this might be considered the strength of the selected project approach. However, following the established practice of the ECTS system the credit allocation should be regularly monitored during course delivery to assess whether the estimated workload is realistic. The monitoring and validation of credit allocation should be part of HEIs internal quality assurance system.² Therefore, it is recommended that partner HEIs closely monitor real workload and collect feedback from the enrolled students, and refine the workload and ECTS where necessary. The revision and validation on the number of ECTS could be particularly taken into account under the activity 2.10 – Optimisation of MSc and LLL courses based on the feedback of enrolled participants (students, researchers, professionals) planned for summer months after the second semester of the programmes implementation (2022, M7-M8).

- PROJECT SUSTAINABILITY

The project has several very promising potentials to ensure long-term sustainability of its specific objectives, results and outcomes, including MSc and LLL courses being integrated in regular offer study programmes at the partner HEIs. While MSc curricula are rather likely to continue to be offered and implemented beyond the project funding, it is of particular importance to make coordinated efforts, during the project duration, to ensure different aspects of LLL programmes sustainability. It is recommended that each partner in the project examines the internal structures that would be hosting the developed LLLs in the foreseeable future and/or make efforts to initiate the most adequate ones. Where there is a faculty or university unit for lifelong learning, ECOBIAS LLLs would be valuable additions. This would increase their accessibility to outside stakeholders in the environmental monitoring sector and their visibility in the wider community.

In the ECOBIAS Dissemination plan, it is noted that one of the means of sustainability is: “LLL courses will after the end of Project funding continue to be offered to

² ECTS Users’ Guide 2015, https://ec.europa.eu/assets/eac/education/ects/users-guide/docs/ects-users-guide_en.pdf

professional public, but as paid service, i.e. with registration fee. This will be the main source of finances necessary to keep the sustainability activities operational”.

Moreover, the sustainability of the regional academic network in EMAB and ECOBIAS-NET internet platform, should be thoughtfully considered. The consortium should explore potentials to integrate as strongly as possible the project deliverables into structures and regular functionalities of participating HEIs. Strengths and opportunities, as well weaknesses and threats that may stand on the way should be considered. Plans for key project deliverables beyond the project lifetime should be clearly articulated and included in the Sustainability Plan which is recommended to be prepared in the final project months.

- **PROJECT WEBSITE FINE TUNING**

The project website offers variety of data about project management, meetings and results and represents a strong point of the project. It is well-above the average for the similar projects and packed with an abundant number of information and resources. Yet, there is still some place for improvement, mainly in regard to data organisation and presentation. Some project outcomes, which have been very successfully delivered, appear to be even greater in scope and quality than currently presented on the project website. The website itself is well structured with considerable number of project documents, templates, deliverables and reports to be used both internally by project consortium and externally by interested public successfully serving dissemination purposes as well. Nevertheless, a light upgrade in organisation of the NEWS AND EVENTS section would allow better overview of the project events, in particular if grouped by their types: trainings, workshops, open days and roundtables. This would improve navigation and assist visitors to gain even better impression about the abundance of the nice events that were organised and documented. Similarly, the section about project WORK PACKAGES should be enlarged with relevant reports, materials produced and photo galleries which will increase attractiveness of this section and improve visitors experience by giving instant and clear overview of the results obtained and new knowledge created.

- **DISSEMINATION AND KNOWLEDGE SHARING**

Active dissemination process should be continued, especially in the context of knowledge sharing and regional awareness raising about the ECOBIAS topics and project achievements. The upcoming project period is already tailored to be more externally oriented and focused on attracting students and practitioners to enrol new programmes, as well academics and professionals as potential partners to join new EMAB network in WB region. In that regard, to make these ambitious dissemination plans easily manageable it is recommended to WP5 team to additionally systematise and diversify dissemination activities to make preferred impact among target groups at the same time optimising available tools and workloads.

Furthermore, the established network should be further exploited in the upcoming period by initiating joint project proposals under eligible EU and regional funding for research, teaching and networking (e.g. Horizon Europe, Danube and Adrion Interreg transnational programmes, bilateral collaborations, etc.). These will additionally reinforce the desired increase in quality of regional cooperation in education and research in EMAB field, demonstrate the interest among stakeholders and seek feasible financial sustainability for the ECOBIAS results.

Finally, ECOBIAS may benefit from making links and exchanging practices with projects which are thematically similar, as well as with those funded under the same Erasmus+ scheme. The remaining inter-project coaching should be again well-targeted, carefully prepared and fully documented to allow knowledge multiplication and wider use of best practice identified, serving as platform for peer learning. Moreover, it should be employed to strengthen capacities of participating projects to manage common challenges effectively, but also to improve their visibility and outlooks for their long-term sustainability.

During the external monitoring process, some minor technical issues and inconsistencies were identified (e.g. slight inconsistency in one governing body title, a lack of a specific detail in the Rules of Procedures about chairing the meetings, minor improvements of some aspects of the data organisation on the website) and resolved right away by the ECOBIAS coordination team at the University of Novi Sad. This ease of communication and acceptance of the evidence-based recommendations confirmed once again that the project team is fully devoted to high quality of the project processes and outcomes, and serves the project excellence in the best possible manner.

The ECOBIAS project has carefully picked emerging environmental topics and selected developmental tools to stream towards the goals very relevant to both partner and programme countries of the Western Balkans. They may all benefit from the project long-term changes: organised knowledge sharing, intensified networking and collaboration. These will directly encourage academics, researchers, students and professionals to coordinate and work together in identifying and solving local and regional challenges in EMAB field, and likewise reinforce respective chapters in WB accession negotiations with the EU.

It was my personal pleasure to perform external evaluation and assess the project processes, collaboration, timeliness and quality of the produced deliverables and meet the project team which radiates optimism and genuine enthusiasm. On the other hand, it was quite a challenging task to explore in which ways this remarkably-well managed project with impressive results can become even better in its streaming to excellence.