NEWEN - **Ne**therlands and **W**estern Balkan **E**nvironmental **N**etwork

Proposal for a cooperation and capacity building program between 6 universities in the Western Balkan and 3 universities in The Netherlands



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NEWEN - Netherlands and Western Balkan Environmental Network

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1. Introduction

1.1 Background

The countries in the Western Balkan have serious environmental problems and are missing capacity to adequately address them. The use of outdated industrial facilities, lack of environmental resource management combined with the recent history and the complex social-political situation in the region, are among the main drivers to this situation.
Especially air & water pollution and hazardous waste are threats to the health of the population. Throughout the region there are numerous heavily contaminated sites related to industrial and mining activities. In addition, many cities and towns have insufficient water supply systems, which affect the availability and quality of potable water. Moreover, wastewater treatment facilities are often lacking.

This program proposal has been developed by a consortium of Dutch universities and institutes aiming to contribute improving the environmental situation in the Western Balkan region. The main focus of the program is to develop a network of universities in the region and to contribute to environmental capacity building at these universities. The program has been developed as part of the current *Regional Programme on Environment Western Balkan* of the Embassy of the Kingdom of the Netherlands in Belgrade.

1.2 Regional Programme on Environment, Western Balkan 2006 – 2009

The Embassy of the Kingdom of the Netherlands in Belgrade is currently running a regional program on environmental capacity building in the WB countries. Within the program an analysis is made of trends, opportunities and risks which are shown in the text box 1 below:

Box 1. Trends, opportunities and risks as formulated in the Regional Programme on Environment, Western Balkan 2006 – 2009

Weak environmental governance. The institutional and administrative capacity of the national and local governments in the countries of the Western Balkan is rather weak. All countries have approved National Environmental Action Plans, but these plans do not define clear targets nor well defined results with respect to the environment. Furthermore, the plans do not define the investment needs nor the financing plans for the expensive environmental measures. Policy instruments for proper environmental management are not clearly defined in the environmental action plans. General agreed principles of environmental management like “the polluter pays”, “the precautionary principle” and “the ecosystem approach” are not applied.

Integration in Europe is a strong driver for environmental management. The perspective of EU accession is a key driving force for environmental improvement in the region. Through fulfilling the obligations of the Stabilisation and Association Process, the countries in the Western Balkan are moving towards implementation of the environmental acquis. The environmental acquis is one of the most demanding to implement as approximately 300 items of EU environmental legislation have to be transposed to national legislation, and transposition has to be followed by effective implementation and enforcement. Rapprochement towards the EU provides the opportunity to establish objectives and standards for the environment, to improve the planning processes and management practices, to provide access to best practices and to give assistance to develop environmental infrastructure.

Lack of financial resources for environmental investments

The rapprochement towards the EU requires huge investments in environmental infrastructure. Studies of the European Commission have calculated that in Eastern Europe full compliance with the EU legislation will require spending of two to three percent of GDP annually. In the Western Balkan, where the GDP is still much lower, reaching that level of expenditures presents a major problem. In addition, national sources to finance environmental infrastructure are underdeveloped in the majority of the countries. In recent years, the majority of environmental infrastructure projects have been financed through assistance from bilateral donors and IFI's. Problems related to the financing of environmental infrastructure are 1) user charges below cost-recovery levels, 2) non-transparent and inefficient subsidy schemes, 3) inadequate access to external funding of bilateral and multilateral sources and 4) the lack of commercial financing. Basic infrastructure maintenance work is often not carried out and assets often deteriorate or cease to function. To comply with the enormous environmental infrastructure investment needs, it is urgent to increase the expenditures on environment from national budgets.

Limited transboundary co-operation. Although many environmental problems in the West Balkan have transboundary effects, co-operation between neighbouring countries is not very common. Especially air pollution and water resources management require co-operation between different countries. Initiatives to improve transboundary co-operation, like the Regional Environmental Program (REReP) do not yet receive sufficient political support and do not fulfil the role to co-ordinate the co-operation on environment in the region.

Based upon the analysis of the trends, the most important actors, the interests and the internal strengths of the Netherlands, the *Regional Programme on Environment* has selected three strategic objectives for environmental co-operation in the Western Balkan. These are:

1. To enhance regional co-operation in the Western Balkan to solve problems of cross border contamination due to industrial and mining activities;
2. To increase the knowledge of the population of the Western Balkan on the importance of environment for sustainable development; and
3. To build capacity for transboundary co-operation on environmental issues.

1.3 History of development of the NEWEN program proposal

LeAF got in contact with the Dutch Embassy in Belgrade in September 2007 and offered to assist in developing the university cooperation program. During an inception phase that ran in the period December 2007 – July 2008, a consortium was formed, consisting of Wageningen University and Research - Wageningen International, Unesco-IHE, Vrije Universiteit Amsterdam and LeAF. Representatives of the consortium have made visits to various universities in the West Balkan region in January, February and July 2008 in order to assess the interest in cooperation and the needs for capacity building in the field of environmental policy and management.

The outcomes of the inception phase formed the foundations of the current program proposal of cooperation, aimed at capacity building and collaboration between 6 universities in the Western Balkan region and the 3 universities and institutes in The Netherlands.

1.4 Terms of Reference for the NEWEN program

During the inception phase, the Netherlands' Embassy in Belgrade has set the following terms of reference for the NEWEN program:

- It should be aiming at transboundary cooperation between the Western Balkan countries on environmental issues
- It should address environmental policy issues in the region and anticipate on increasing involvement of the WB countries with the European Union and expected harmonization of environmental laws and regulations
- It should be aiming at establishing cooperation of universities from the WB countries with universities in The Netherlands
- It should focus on future collaboration beyond the embassy program which runs in the period Spring 2008 to maximal spring 2011.
- The maximal budget of the program is around 2 million euros.

1.5 Objectives of the NEWEN program

The central objective of the NEWEN program is to develop a network and transboundary cooperation in the field of environmental management between the 6 participating universities in the West Balkan (see Chapter 2) and the participating universities and institutes in the Netherlands. The cooperation aims to:

- contribute to environmental capacity building at the WB universities through a number of activities such as professional trainings of university staff, curriculum improvements and providing a number of MSc scholarships for post-graduate students to study in the Netherlands.
- improve information exchange and cooperation between the participating universities and institutes.
- develop future research and training programmes with participation of members of the WB and Dutch consortium.
- contribute to problem analysis and the development of strategies and policies with respect to a number of environmental 'hotspots' that are high on the regional agenda and that are supported by the United Nations Development Program (UNDP).

1.6 Lay-out of the program proposal

Chapter 2 addresses the consortium that was formed during the inception phase. Chapter 3 describes the results of the needs' assessment that was made during visits to participating Western Balkan universities during the inception phase. Based on the results of the inception phase a number of activities is formulated in chapter 4. Chapter 4 also introduces the proposed work package structure of the NEWEN program. Chapter 5 elaborates on the organization of the NEWEN program. Chapters 6 and 7 introduce the deliverables & planning and the budget, respectively.

2. Consortium

2.1 Introduction

This chapter describes the NEWEN consortium that was formed during the inception phase. Paragraph 2.1 introduces the participating universities in the West Balkan region, while 2.3 introduces the Dutch consortium partners.

2.2 Involved universities in the West Balkan region

During the inception phase, contacts were made with universities that are involved with education in the environmental sciences domain in the West Balkan region. The participating universities in the WB region were initially selected and approached based on a number of selected criteria:

- The selected universities had to offer education in the environmental sciences domain
- A number of universities were suggested by the Regional Programme on Environment Western Balkans.
- One university was selected from each 5+1 country

The entry point at each WB university was the faculty with group addressing environmental issues. All the approached universities were interested to participate in the NEWEN program. The following paragraphs provide a information on the participating universities.

University of Tuzla, Bosnia and Herzegovina

The University of Tuzla is established in 1975, and now it is constituted from thirteen faculties where about 20.000 students are enrolled. Beside faculties of social sciences, humanities and medicine, there are four technical faculties and faculty of natural sciences, where several disciplines related to environmental issues are covered by study programmes.
Due to the post- war circumstances, university is poorly equipped with relevant equipment necessary for environmental studies, and mostly theoretic knowledge is gained through the existing programmes.
Undergraduate studies are structured in accordance with Bologna recommendations in 4+1 programmes. Efforts are made towards improvement of study programmes and purchasing of necessary equipment, as the prerequisite for more serious scientific work .

International cooperation

Very developed cooperation with universities in Bosnia and Herzegovina, in the Western Balkan region, good cooperation with european universities in Tempus projects and some research projects.

Research and Education in the field of environment

Following Faculties are offering education in environmental science domain:
Faculty of natural sciences - Environmental Chemistry
Electrotechnical faculty - Energy and environment
Faculty of mechanical engineering - Environmental energetics
Faculty of technology - Process, environm. engineering

University of Niš, Serbia

General Information

…

International cooperation

Research and Education in the field of environment

Faculty of Natural Sciences
…
Faculty of Occupational Safety

Study program:
Working and living environment protection
Master degrees:
Environmental engineering
Communal system management

University of Montenegro, Podgorica

The University of Montenegro was founded on 29 April 1974. During the thirty years of its existence, the University has developed in accordance with the possibilities and requirements of time.
University of Montenegro today is located in 5 towns: Podgorica, Nikšic, Cetinje, Kotor and Herceg Novi.
The University comprises 14 faculties and one college. Its members are the following units:
- Faculty of Economics
- Faculty of Law
- Faculty of Electrical Engineering
- Faculty of Metallurgy and Technology
- Faculty of Civil Engineering
- Faculty of Mechanical Engineering
- Faculty of Natural Sciences and Mathematics
- Faculty of Medicine
- Faculty of Philosophy
- Academy of Fine Arts
- Faculty of Drama
- Faculty of Music
- Faculty of Marine Studies
-Faculty of Tourism and Hotel Management
- Physiotherapy College

Within the above listed faculties, there are a number of departments and study groups offering a wide range of diverse educational profiles.
The University includes four scientific research institutes as well:
- Institute of Foreign Languages
- Institute of Biotechnology
- Institute of History
- Institute of Marine Biology.

The University Library constitutes an equal member of the University. There are Information

Technology Centre and Human Rights Centre, Centre for International Studies, Centre for Quality at the University as well.

The seat of the University is in Podgorica (www.podgorica.cg.yu), the capital city of the Republic, with a population of around 200.000. Most faculties of the University of Montenegro are located in Podgorica.

The University of Montenegro is organized like most European universities. It comprises faculties, institutes and colleges, as well as logistic centers. The University has unique academic, business and development objectives. The Managing Board governs the university and the Rector manages it. The supreme academic body is the University Senate. Deans are heads of faculties and directors are heads of institutes. At faculties i.e. at institutes, the highest academic bodies are councils for teaching-scientific issues, i.e. for teaching-artistic issues. The highest student body is the Student Parliament. Representatives of students are elected in all bodies of the University and of the faculties. In the academic year 2003/2004, the first year of studies at the University of Montenegro has been organized at most faculties in accordance with the Bologna Declaration principles. In the academic year 2004/2005, this regime of studying will be applied in the first year of studies at all faculties. Implementation of European Credit Transfer System (ECTS) will provide better conditions of studying for students as well as an opportunity for mobility within the European Academic Area. Full implementation of this system is foreseen by the year 2009.

The undergraduate study programmes at the University of Montenegro are the following:
Studies at high schools, BAp (3 years)
Undergraduate academic studies, BS, BA (3 years)
Master studies MS, MA (BS, BA + 2 years)
Doctoral studies (MS, MA + 3 years)
According to the needs, faculties organize various programmes of professional development and training.

Undergraduate Studies Undergraduate studies at most faculties of the University of Montenegro last three years. Candidates who have completed adequate four-year secondary education can be enrolled into the first year of studies. Tuition fees can either be paid from the budget or the student pays for them. The Government of Montenegro determines the number of students to be enrolled into the first year, as well as the tuition fee for self-financed students.
Selection of candidates to be enrolled into the first year of studies is based on two cumulative criteria:
- results obtained in secondary school (school leaving exam)
- results obtained at the entrance exam (for faculties of arts).
Enrolment into the first year of studies is organized at the end of June, in July and at the end of August.
Teaching is organized through lectures, exercises, seminars, consultations, practical work, professional training and other forms of teaching. During the studies students achievement is continually assessed through: colloquia, seminar papers and finally at exams.

Postgraduate Studies Specialist studies last one academic year i.e. 2 semesters. Postgraduate studies last two (1+1) academic years, i.e. four semesters.
Persons who have completed adequate undergraduate studies have the right to enroll postgraduate studies. The students have the right to take their master's thesis after they have passed all the exams from the postgraduate studies' curriculum. After defending his/her master's thesis in public a student obtains the academic title of a master of science or a master of arts in a particular field.

Doctoral Degree Doctoral studies at the University of Montenegro last three academic years, i.e. six semesters.
A person who has the academic title of a master of science or a master of arts can enroll doctoral studies. The procedure for obtaining the topic for a doctoral dissertation and for choosing a mentor and the committee for the assessment and defending of a doctoral dissertation implies a mandatory consent of the University Senate. The students have the right to take their doctoral thesis after they have passed all the exams from the curriculum of doctoral studies. After defending his/her doctoral thesis in public, a student obtains the academic title of a Ph.D.

International Cooperation

Directly or over its units the University of Montenegro cooperates with numerous scientific and educational institutions in the country and abroad. Cooperation with foreign institutions is realized through direct accession to numerous international university associations and networks, as well as through bilateral agreements.

The University of Montenegro has signed agreements on cooperation with the following universities: University in Bari, University "La Sapienza" in Rome, University in Foggia, Warsaw University – Poland, Moscow State University – Russia, University of Shkodra – Albania, University in Bremen – Germany, University in Oslo – Norway, University in Bergen – Norway, University in Tour – France, University in Bratislava – Slovak Republic, University in Granada – Spain and University "Charles Sturt" – Australia.

Since 2002 a number of projects are being realized at the University of Montenegro within the European Union programmes: TEMPUS, SOCRATES, ERASMUS-MUNDUS. The University of Montenegro cooperates with UNESCO, Council of Europe, American Councils, WUS-Austria, British Council, DAAD, etc.

Agricultural University of Tirana, Albania

Number of Diplomas (according to Bologna System – Declaration) is 12.
There are five faculties at Agricultural University of Tirana:
(i) Agricultural and Environment, (ii) Economy & Agribusiness, (iii) Veterinary Medicine, (iv) Forest and (v) Agri Food & Biotechnology.
Number of Students : 8300 (6400 approximately on full time system and 1900 on part-time system)
Members staff: 250
Member of Technical Staff: 230

International cooperation

TEMPUS programme, since 1993, in total 25 projects e.g. Balkan network education
Bilateral programme (financed by Interreg/CARDS I, II and III)
Bilateral programme (financed by two gouvernments : Albania-Italia, Albania-Greece, Albania-Slovenia, Albania-Macedonia.
NATO programme (with Turkie, Greece, Italy, France)
Teaching with Tetovo and Prishtina Universities

Research and Education in the field of environment

Faculty of Agriculture and Environment
(Agro environment and Ecology Department : 450 BSc students and 21MSc students)
Research group of Environment, Research group of Ecology, Research group of Soil Science.

Faculty of Forestry (Forest Management : 250 BSc students and 20 MSc students).
Research group of Forest and Environment
Faculty of Agro Food and Biotechnology. (350 BSc students)
Research group of Hydrology and Biodiversity

University of Prishtina, Kosovo

The University of Prishtina is the most important educational, scientific and cultural institution in Kosova. For more than thirty eight years it was the sole carrier of higher education.
The University of Prishtina was founded by the *Law on the Foundation of the University of Prishtina* on 18 November1969. The Foundation Assembly of the University of Prishtina was held on 13 February 1970, and two days later, on 15 February, the Solemn Meeting of the Foundation Assembly was held for its inauguration.
Initially, the University consisted of four faculties, and currently it includes 17 faculties:
1. The Faculty of Philosophy,
2. The Faculty of Mathematical-Natural Science,
3. The Philological Faculty,
4. The Faculty of Law,
5. The Faculty of Economics,
6. The Faculty of Civil Engineering and Architecture,
7. The Faculty of Electrical Engineering and Computer Engineering,
8. The Faculty of Mechanical Engineering,
9. The Medical Faculty,
10. The Faculty of Arts,
11. The Faculty of Agriculture,
12. The Faculty of Mining and Metallurgy,
13. The Faculty of Physical Culture and Sports,
14. The Faculty of Education,
15. The Faculty of Applied Sciences in Peja,
16. The Faculty of Applied Sciences in Mitrovica,
17. The Faculty of Applied Sciences in Ferizaj

In the academic year 2007-2008 University of Prishtina has about 29.000, with 1.200 academic staff.
The University of Prishtina, according to current legislation, is a unique legal unit. Its governing bodies are: *the Senate* (the highest academic body), *the Steering Committee* and *the Rector*. According to the Bologna Declaration, the new studies model (European) includes basic three years studies (*Bachelor*), two-year professional studies (*Master*) and three-year professional scientific studies (*Doctor of science*).

University of Skopje, Macedonia

General Information

The Ss. Cyril and Methodius University in Skopje was founded in 1949 consisting three faculties and today it represents a family of twenty-three faculties, ten institutes and other institutions.

The present structure of the Ss. Cyril and Methodius University can be illustrated with the following figures: over 36,000 students from the Republic of Macedonia as well as over 700 foreign students are enrolled at all faculties; over 2,300 teaching and scientific staff and associates are engaged in the teaching, educational and scientific process at the faculties and over 300 at the institutes.

In its up-to present development of the University, over 100,000 students acquired their Bachelor degree, over 5,000 candidates obtained their master's degrees while over 2,000 became doctors of science.

International cooperation

The international cooperation of the University is given high priority, focused towards intensive participation in the CARDS-TEMPUS and UNESCO programmes, the Regional Central-East European initiative, cooperation with neighboring countries and Mediterranean region.

Long- term bilateral cooperation with 75 foreign universities is realized through revised forms in the areas, which directly reflect the mutual priorities and the interests of the partners. Workshops and training seminars on reconstruction, modularization and management have been organized for the purpose of attaining compatibility with European HE model.

Research and Education in the field of environment

Within the University the following faculties are involved in research and education in the field of environmental sciences:

Faculty of agriculture and food
Faculty of forestry
Faculty of veterinary medicine
Institute of Sociological, Political and Juridical Research
Institute of Agriculture
Institute of Earthquake Engineering and Engineering Seismology

2.3 Involved institutes and universities in The Netherlands

Lettinga Associates Foundation (LeAF), Wageningen

Lettinga Associates Foundation (LeAF) is a not-for-profit organization, established in 1997 by researchers of Wageningen University, The Netherlands, with the goal of advancing the development and implementation of integrated and sustainable environmental practices and technologies. LeAF is positioned as an intermediary organisation between academic research and practical application and provides project management, consulting services, performs laboratory studies related to wastewater and waste treatment and makes conceptual designs of wastewater treatment plants (www.leaf-water.org).

An important part of the work of LeAF is committed to enhancing environmental management worldwide through knowledge transfer and environmental capacity building. LeAF is involved with several programmes in this area that include various other partners. Some representative programmes are:

- Agua para Todos – Aguas para Siempre: a 3-year programme aimed at improving integrated watershed management in the mountainous area of Matagalpa, Nicaragua. The program is a collaboration between the city council of Matagalpa, two water authorities in The Netherlands and LeAF. LeAF is the coordinator (www.aguaparatodos.nl).
- Environmental capacity building in Uganda: a 3-year programme aimed at capacity building at universities and local authorities in Uganda in the field of environmental management. Collaboration between the National Management Authority of Uganda, Wageningen University, Maastricht School of Management, ICT Twente and LeAF. LeAF

is responsible for building capacity at local authorities by provision of 6 courses in waste and wastewater management and a training of trainers programme.

- Integration of good environmental practices in agro-industries for cost-effective optimisation of wastewater treatment in Balkan region: a 3-year programme (2002-2005). Collaboration between Hydro Engineering Institute in Sarajevo, Faculty of Natural Science and Mathematics in Novi Sad, Institute for Waters in Bijeljina, Wageningen University, CUTEC Institute in Clausthal-Zellerfeld, Ente per le Nuove Tecnologie, l'Energie e l'Ambiente in Bologna and LeAF. LeAF was responsible for characterisation of agro-industries wastewater in respect to biological treatability and reuse.

Wageningen University and Research (WUR), Department of Environmental Sciences & Wageningen International

Wageningen University is the leading European university in the Life Sciences. Researchers and students focus on the fields of nutrition, health, nature and the living environment. For the third year in a row, Wageningen University has topped the list of 14 Dutch universities in the Guide to Choosing Higher Education. Wageningen University and Research Centre (WUR) provides education and generates knowledge in the field of life sciences and natural resources. Wageningen UR is a collaboration between Wageningen University, Van Hall Larenstein School of Higher Professional Education and the specialized former research institutes (DLO) from the Dutch Ministry of Agriculture (see also http://www.wur.nl/UK/, http://www.wur.nl/UK/about/mission+and+strategy/, and http://www.wur.nl/UK/about/organisation/organisation+chart/). This combination of knowledge and experience enables WUR with its 6.000 staff and more than 9.000 students to contribute actively to solving scientific, social and commercial problems in the field of life sciences and natural resources.
WUR approaches these national and international issues from the perspectives of various disciplines, with an integrated approach and in close collaboration with governments, companies, stakeholder organizations, citizens, and other knowledge institutions. Special attention is paid to the balance between three priorities in society: economics, culture and nature.
Within this "consortium" Wageningen University is responsible for scientific education (at BSc, MSc and PhD level) and for fundamental research (see also: http://www.wageningenuniversiteit.nl/UK/). Van Hall Larenstein trains its students at the level of professional Bachelors (see also: http://www.wur.nl/UK/education/Van+Hall+Larenstein/). The research institutes focus on applied and strategic research.

Wageningen International (WI) is the front office for the international activities of Wageningen UR.

Wageningen International

Wageningen International is realizing Wageningen UR's international ambitions and scientific and corporate social goals through:

- Networking with partners, connecting to clients and linking to international policy agendas
- Enlarging/ broadening international activity portfolio
- Increasing effective/efficient use of resources

WI has the specific mandate to mobilize the resources of Wageningen UR for the design and implementation of comprehensive programmes for capacity development focused on individuals, organizations and institutions. The following activities are developed:

- Technical and process advisory services
- Open access and tailor made mid-career training programmes,
- Web-based resource portals and on-line learning,
- Policy and sector studies
- Monitoring and evaluation
- Project cycle management
- Information and knowledge management

Unesco-IHE, Delft

The UNESCO-IHE Institute for Water Education is an international institute that was established in 2003. The Institute is based in Delft, the Netherlands, and is owned by all UNESCO member states. It is established as a UNESCO 'category I' institute jointly by UNESCO and the Government of the Netherlands. The Institute is the largest water education facility in the world, and the only institution in the UN system authorised to confer accredited MSc degrees. UNESCO-IHE is instrumental in strengthening the efforts of other universities and research centres to increase the knowledge and skills of professionals working in the water sector. Within this mandate, the mission of the Institute is to contribute to the education and training of professionals and to build the capacity of sector organizations, knowledge centers and other institutions active in the fields of water, the environment and infrastructure in developing countries and countries in transition.

UNESCO-IHE employs a total of 166 staff members, 92 of whom are responsible for the education, training and research programmes both in Delft and abroad. The Institute also has at its disposal a pool of more than 350 national and international guest lecturers from government agencies, partner universities and research institutes, private consultancy firms and other organisations.

Vrije Universiteit Amsterdam

'Vrije Universiteit' (VU) means 'Free University'. Here, 'free' refers to the freedom from state and church interference. VU Amsterdam was established in 1880 by orthodox protestants. Nowadays it aims to be inspiring, innovative and involved.
The Vrije University has 18'000 students and 4'000 staff members. During the last 125 years the VU has developed itself from a modest initiative to an eye catching institute in the fast developing economical region, the Zuidas Amsterdam.

The VU is a broad university in which education and research are complementary. VU offers an inspiring education environment where student can fully develop themselves nationally and internationally. VU has an international pioneering position in various fields of research which is high-quality, innovative and society-based. Research can be both fundamental and applied. One of the Master's programmes offer by VU is in Environment and Resource Management. This MSc. deals with environmental change and resource depletion. The MSc. educates versatile environmental experts who can address local risk issues in addition to global questions such as climate change and the decline in biodiversity. The Master's programme trains work in multidisciplinary teams so that future graduates can be part of an integrated approach towards analyzing and solving problems in all sorts of organizations

concerned with natural resources and the environment, be they private or public sector, national or international.

3. Needs' identification

3.1 Introduction

This chapter describes the results of the WB universities needs' assessment that was made during the inception phase. During this phase, contacts were made with the selected universities and the question was posed whether they were interested to participate. The entry point at each WB university was the faculty with group addressing environmental issues.

All the approached universities were interested. In order to assess the needs and wishes of different university, questionnaires were sent to each university. A summary of the results of these questionnaires are reported in paragraph 3.2. The full responses are shown in Annex 1.

In order to discuss the cooperation and the potential activities within the programme three inquiring missions to the WB universities were made in January, February and July 2008. The results of these missions are summarized in paragraphs 3.3 and 3.4

3.2 Response to the questionnaires by the WB universities

Information on the main interests of the WB universities was collected via the questionnaire (Annex 1) prior to missions and is presented in Table 1.

Table 1. Overview of activities of the highest interest to the WB Universities (from the questionnaires Annex 1)

University	Interests
Skopje, Macedonia	MSc fellowships Sandwich PhD programmes
Niš, Serbia	Sandwich PhD programmes Post-Doc researches(joined research programme) Workshops, Symposia
Tuzla, B&H	MSc fellowships Sandwich PhD programmes (joined research programme) Post –Doc researches (joined research programme) Short refresher courses for University staff of WB Universities Workshops, Symposia
Prishtina, Kosovo	MSc fellowships Post –Doc researches (joined research programme) Short refresher courses for University staff of WB Universities Workshops, Symposia
Tirana AU, Albania	MSc fellowships Post –Doc researches (joined research programme) Symposia
Podgorica, Montenegro	MSc fellowships Sandwich PhD programmes (joined research programme) Short refresher courses for University staff of WB Universities

3.3 Three missions for assessing the needs

In order to discuss the cooperation and the potential activities within the programme three missions took place:

1. mission January 2008 (21-27 January): visit universities in Serbia, Macedonia and Bosnia
2. mission February 2008 (03-06 February): visit universities in Albania and Montenegro
3. mission July 2008 (06-08 July): visit university in Kosovo

In all cases only one visit to each WB university was made. During these visits talks were held with management and educational staff and with students from the various universities. The visits and talks were aimed at assessing the needs of the various partners and their expectations from a future cooperation within the NEWEN programme in addition to the questionnaires that were sent earlier. In addition, talks were held with embassies and ministries in the various countries in order to assess their views on the needs and priorities in environmental capacity building and regional cooperation.

During the first mission to the WB universities (20-26 January 2008), representatives from the Dutch organizations (Dr. Tineke Hooijmans, Unesco-IHE, Drs. Erik Frederiks, WU and Darja Kragić-Kok, LeAF) had the following meetings:

- with the Dutch Embassy in Belgrade,
- with the Dean and vice-dean of Faculty for Occupational Safety, university of Niš ,
- with the Dean and other professors from Faculty for Natural Sciences, university of Skopje,
- with the Dutch Embassy in Skopje,
- with the Assistant Minister and advisors at Ministry for Environmental Protection in Belgrade,
- with professors from Faculty for Natural Sciences, university of Belgrade,
- with the vice rector for international relations and professors from university of Tuzla

During the second mission (3-9 February 2008) representatives from the Dutch organizations (Drs. Erik Frederiks, WU; Dr. Diederik Rousseau, Unesco-IHE; Dr. Heather Leslie, IVM-VU and Darja Kragić-Kok, LeAF) had the following meetings:

- with Rector and Deans of the Agricultural University of Tirana (AUT)
- with the Secretary general, Ministry of Environment in Tirana
- with the Dutch Embassy in Tirana
- with students of the AUT
- with the Deputy Minister of Agriculture in Tirana
- with professors from the Faculty for Biology, University of Montenegro, Podgorica
- with students of the Faculty for Biology, University of Montenegro, Podgorica
- with the Dean of Faculty for Metallurgy and Technology, University of Montenegro, Podgorica
- with UNDP Programme Manager of Regional Environmental Programme in Podgorica

During the third mission (6-8 July 2008) representatives from the Dutch organizations (Dr. Tineke Hooijmans, Unesco-IHE and Darja Kragić-Kok, LeAF) had the following meetings:

- with permanent secretary in Ministry of Environment and Spatial Planning and head of REC for Kosovo
- with the National Institute of Public Health
- with the Dutch Embassy office in Prishtina
- with the vice rector for teaching and research of University of Prishtina
- with the Plant Ecology and Biodiversity group / Kosova Association of ecologists
- with the Faculty of Natural Sciences, University of Skopje

For a detailed description of the results of the various missions, including the names and contacts of the interviewed persons, please refer to Annex 2, Annex 3 and Annex 4.



3.4 Results of the needs assessment

Table 2 and 3 provide a summary of the information that was collected for each WB university that was visited during the missions.

A summary of the identified needs after the three missions are listed and briefly discussed below:

Introduction of the Bachelor-Master system
All the visited universities are currently in the process of introducing the Bachelor-Master system and have indicated that they would appreciate support in this. Both the Bachelor and the Master phase are reduced in time and will require different quality standards, new approaches to teaching and new educational materials. In general, most universities experience constraints with respect to expertise, infrastructure and educational staff.

Modernization of environmental education
At most of the visited WB universities environmental education is organized through a faculty of natural sciences or a faculty for technology. Because of this more natural-science oriented organization it is difficult to address the social and policy aspects of environmental problems. In that respect, most universities recognized that their environmental education tends to be mono-disciplinary. The students have a high level of knowledge in a certain domain, but lack an integrated view on environmental issues. There is a need for a more integrated approach to education and research in the environmental sciences domain that is i.e. more focused on problem-oriented education and involves knowledge and experience in the field of policy and management.

Enhancing capacity for environmental sciences research

At most of the visited universities environmental research has not had a high priority in the last tens of years due to financial constraints. This has resulted in the marginalization of staff members with research experience. Most partners have expressed their interest in joint PhD programmes to help build capacity in research. Unfortunately, the NEWEN programme is too short for a PhD programe according to Dutch requirements (which is 4 years), but MSc studies and visits of WB university staff to the Netherlands could contribute to building research capacity and networks at the WB universities. Moreover, a joint effort to raise funds for future collaborative research activities should be part of the NEWEN programme.

Lack of lab facilities / materials for monitoring / technical rooms and equipment
All the visited WB universities indicated that they have a general lack of laboratory facilities and materials and that this is an urgent problem. The worst-off is the University of Tirana which was burnt-down some years ago. It will be difficult to provide equipment within the maximal budget of the NEWEN programme, however small budget as support for research within NEWEN programme and education in finding funding opportunities will be provided.

Stimulating regional cooperation
Most of the WB universities do have cooperation with one or more universities within the region. The regional cooperation is however limited, due to the recent regional political history and economic situation. A second point is that relation building with universities within the EU generally has a higher priority because these relations offer more possibilities for joint research and capacity building through the EU research funds. Moreover, EU universities are often 'peer' examples for innovations in research and education. The need for regional cooperation in the field of environmental sciences is however recognized, considering the transboundary nature of environmental problems.



Table 2. Matrix with information on the universities that were visited during the first mission to Serbia, Macedonia and Bosnia & Herzegovina

	University of Niš	**St Cyril and Methodius University Skopje**	**University of Belgrade**	**University of Tuzla**
Relevant Faculties	Faculty of Occupational Safety Faculty of Natural Sciences	23 Faculties. - Faculty of Nat. Sciences and Mathematics, Department of Biology - Fac. of Agriculture	31 Faculties. Faculty of Natural Sciences and mathematics – Department of Biology. Faculty for Technology and Metallurgy – Department of Environmental Engineering	13 Faculties. - Faculty of Science : Department of Biology, - Faculty of Technology: Departments of Ecological engineering and Environmental protection
Staff	Faculty of Occupational Safety: 100 (35 lect., 35 ass. lec)	173	2500 whole University	550 for whole University
Students BSc	Faculty of Occupational Safety >100	300 for Dept. of Biology	200 for Dept. of Biology	120 for Fac. of Natural Sciences. 120 for Fac. of Technology
BSc + MSc year	3 + 2	4 + 2	3+2	4 + 1, this year 3 + 2
New PhD programme, years	Next year, 3	No	This year, 3	Under development
Relevant MSc programmes	Faculty of Occupational Safety 1 Bsc: Env. Protection MSc: Env. Engineering, Communal system management	Dept. of Biology BSc: Ecology MSc: Ecology & Environmental Protection	Dept. of Biology MSc: Ecology & Environmental Protection MSc: Environmental Engineering	Faculty of natural sciences - MSc: Environmental Chemistry Electro technical faculty - MSc: Energy and environment Faculty of mechanical engineering - MSc: Environmental energetics Faculty of technology - MSc: Process, environm. engineering
Country problems	-No municipal solid waste management.	- Low implementation of env. legislation.		- Complex constitutional structure of Bos.-Herz.

	-No environmental management. -No wastewater treatment.	-Low political interest and priority. -Low awareness and educational level.		(republic and federation) - Higher education and research should have higher priority on political agenda. - Nowadays active (again) industrial region, with difficult economic period behind - Air and water pollution, soil pollution from mining, solid waste. - No monitoring and control.
University problems	- Politics. - No money. - Limited staff capacity. - No equipment. - Lack of transboundary coorporation.	- Research has low priority - No selection of young staff members (even no permission to select young staff on own budget) - Students have to pay for research facilities (€ 200-trimester). - International travel => very difficult to obtain visa. - Absorption capacity labour market. - Reorganization education system.	- Limited number of scientific senior staff and very few support staff. - No equipment. - Practical training of students is missing. - Ecology and environment have not been very popular subjects for policy makers and students; - Environmental economics/ policymaking is missing. - Assessment and monitoring is missing. - Cooperation between different faculties is missing (not supported).	- New law on higher education (transition to state level). - Limited staff capacity. - Few research projects going on => no doctoral degrees. - Limited lab facilities (good equipment is not available at all or distributed over different places) and limited access to libraries. - Limited student mobility. - No cooperation between faculties. - No inter-regional collaboration (for the first time since many years, a regional conference – on electro chemical problems – is scheduled!). - Interdisciplinary research/approach is completely lacking. - Difficulty of changing existing curricula.

University Needs	-MSc fellowships for env. programme at Dutch Universities. -Joint MSc programmes Env. Sciences and Urban Env. Managemt. -Sandwich PhD. -Post Docs. -Short refresher courses for University staff. -Workshops and Symposia. -Subjects: Municipal solid waste management, water supply, wastewater treatment. -Stimulating student mobility -Laboratory equipment	- Development English curricula (students from Bulgaria). - Two steps approach: first staff training, network establishing, in second phase curriculum development and MSc study. - Expert meetings. - Research planning and fund raising.	- Laboratory equipment. - Curriculum development.	- One coherent course in Env. issues. - Curriculum development. - Seminars. - Joint MSc programmes. - Laboratory facilities. - Two steps approach: first staff training, networking, workshops, in second phase framework projects, joint courses. - Preparation of participation in FP7 projects. - Setting up regional university network => start with a round table conference

Table 3. Matrix with information on the universities that were visited during the second mission to Albania and Montenegro

	Agricultural University of Tirana	University of Podgorica	University of Prishtina
Relevant Faculties	Faculty of Agriculture and Environment, Faculty of Forestry, Faculty of Agro food and Biotechnology	Faculty of Natural Sciences and Mathematics, Faculty of Metallurgy and Technology	Faculty of Mathematical and Natural Sciences Faculty of Education
Staff	250 + 230 technical staff	1273 + 332 not academic staff	1638 (in the academic year 2004/2005)
Students BSc, MSc	450 BSc and 21 MSc on Faculty of Agriculture and Environment, 8.300 for the whole University	10.645 for the whole University	33.753 for the whole University
BSc + MSc year	3 + 2	3+2 (at Faculty of Metallurgy and Technology: 3+1+1 (B.Sc, Specialist, M.Sc)	3+2
New PhD programme, years	3, but no students	3	3
Relevant MSc programmes	Faculty of Agriculture and Environment: Research groups: Environment, Ecology and Soil science Faculty of Forestry: Research group: Forest and Environment Faculty of Agro food and Biotechnology: Research group: Hydrology and Biodiversity	Faculty of Natural Sciences and Mathematics, Department of biology (BSc & MSc) Research groups: Ecology and Biodiversity (MSc) Protection of Environmental (MSc) Experimental Biology and Biotechnology (MSc) Faculty of Metallurgy and Technology: Applied study programme (B.Sc 3 year): Environmental Protection Applied postgraduate study programme (+1 year): Environmental Protection – Specialist level Academic postgraduate study programme Chemical Technology (+1 year): Ecology, Specialist level Academic postgraduate study programme Chemical Technology (+2 year): Ecology, Master level	Faculty of Mathematical and Natural Sciences-Ecology and Environmental Protection BSc and MSc.

Country problems	- No environmental management. - Air pollution - Deforestation - Environmental legislation - lack of jobs in environmental sector -No waste(water) treatment -Urban waste management	- Contamination from coal mines, steel & aluminium industry - lack of waste and wastewater treatment - Urban waste management	- High level of pollution inherited by the past period; - Low level of prioritization of environmental problems in the governmental programms and strategies, both in central and local level; - Lack of expertise in the field of environmental management; - Weak and unexperienced institutions and other structures for environmental management (Ministry of Environment is established in 2002);
University problems	- No equipment - facilities were destroyed a decade ago, library burned down. - Research has low priority, no access to scientific literature - Lack of transboundary coorporation.	- Limited staff - lack of capacity to supervise research of MSc students and perform research - Reorganization of educational system.	- Limited staff - Complex political situation in the country influences also the situation at the University and research at the moment has low priority.
University Needs	-MSc fellowships for Environmental programmes at Dutch Universities. -PhD fellowships -Setting up environmental training centers -Regional scientific meetings -Short refresher courses for University staff -Workshops and Symposia. - Course on project management -Student mobility -Laboratory equipment	- MSc fellowships for Environmental programmes at Dutch Universities. - Joined PhD programme - Cooperation with neighbouring countries on trans- boundary water pollution (strengthening Environmental center at lake Skadar) - Short refresher courses for University staff. - Course on Research planning and fund raising. - Laboratory equipment	- MSc fellowships for environmental programmes at Dutch Universities - Joined research programme and Post Doc researches - Short refresher courses for University staff - Training courses for laboratory staff in the advanced analytical methods

4. Work packages & proposed activities

4.1 Introduction

Based on the results of the inception phase a number of activities is formulated. This chapter introduces the proposed activities and links them with the identified needs (the result of Chapter 3). The chapter also introduces the organisation and the work package structure of the NEWEN programme that is further elaborated in Chapter 5.

Table 4. Identified needs after visits to WB universities and proposed activities.

Identified needs	Proposed activities	Work package
Introduction of the Bachelor-Master system and modernization of Environmental Sciences Education	• workshop(s) and consultancies on experiences at the Dutch universities with the introduction of the Bachelor-Master system (3+2 years) • workshop(s) and consultancies on modernization of Environmental Sciences Education • compare curricula between the universities in WB and Netherlands and identify the gaps • tailor made courses	WP 1, 2
Enhancing the capacity of (future) staff for research and education in environmental sciences	• MSc fellowships for students in WB region to follow environmental programmes in the Netherlands (students will be able do their internship within UNDP hot spots programme or other ongoing environmental programme in their home country) • PhD proposal writing course	WP 1, 2, 3
Environmental monitoring and laboratory facilities	• Providing a framework for communication in environmental monitoring and assessment research through joint fieldwork and a joint seminar/workshop • Support activities aiming at future cooperation where funds for improved laboratory facilities can be included	WP 3, 4
Integrated approach to environmental problems	• Through various seminars/workshops researchers and policy makers from the different WB countries will be brought together, and present different angles and complexity of the environmental problems • Environmental hot spots identified in the WB region will be used for case studies • Online course for WB university staff	WP 1, 2, 3, 4
Transboundary cooperation	• Setting up NEWEN website – communication tool for all partners • Organizing regional activities where experts from all	WP 1, 2, 3, 4, 5

	WB universities will be involved and results of MSc thesis research can be presented (e.g Young scientist workshop, NEWEN symposia, ..)	
Activities aimed at future cooperation	• Supporting training in project proposal writing and acquisition for environmental research • Strengthening project management skills in the field of research and education • Improving the knowledge on the opportunities for cooperation and funding within EU pre-accession programmes with regard to environment (FP-7, Tempus, etc)	WP 1, 4

Although there is a mutual interest of WB universities and Dutch universities for joint PhD research, this cannot be feasible within the framework of NEWEN, due to the time limitation (project ends in 2010-2011).

4.2 Work package structure

It is proposed that the programme will consist of the 5 work packages (WPs) as shown in the table below. The programme is partially shaped around the UNDP Regional Environmental Hot Spots Programme. Figure 1 shows how the various WPs interact and relate to the UNDP Programme. Each WP is coordinated by one of the (Dutch) consortium partners.

WPs 1 and 2 are aimed at support for capacity building at the WB universities in the field of education, research and future staff. Within WP2 students and staff of the WB universities will do research that relates to the environmental hotspots. An integration of natural, social and managerial sciences inputs is foreseen through this collaboration. WP 3 will specifically focus on enhancing knowledge and expertise of students and young researchers in the field of environmental monitoring & assessment. The work of WPs 3 and 2 in this field will provide inputs to WP4. WP4 aims to bring the research results to local stakeholders and policy makers and work jointly on solutions. WP 5 concerns the support and management of the NEWEN programme.

Table 5. Work packages structure and activities under each work package

WP	Content	Coordinator	Target group
1	Support for environmental education and research at WB universities 1.1 Workshop: Modernization of Environmental Science Education 1.2 Workshop: Staff training on curriculum development 1.3 Workshops: Capacity building for proposal writing and funds raising for environmental research 1.4 Coordination WUR/WI	WUR / WI	WB universities

2	Capacity building for current and future staff at WB universities 2.1 MSc fellowships 2.2 NEWEN days (joint learning and exchange between the WB students studying at the Dutch universities)) 2.3 On-line courses for University staff 2.4 Tailor made courses for University staff 2.5 PhD proposal writing course 2.6 Post-doc curriculum development in the Netherlands 2.7 Internships for MSc students within the UNDP Regional Environmental Hot Spots Programme	Unesco-IHE	WB universities
3	Environmental monitoring & assessment 3.1 Preparation of field work and seminar/workshop 3.2 Fieldwork at contaminated site in the WB region – monitoring and assessment 3.3 Seminar and field study workshops sessions 3.4 Supervision of MSc student at IVM (the Netherlands) 3.5 Reporting	IVM-VU	WB universities
4	Regional networking and capacity building 4.1 Regional workshops with scientists and policy makers 4.2 Young scientists workshop 4.3 NEWEN symposia 4.4 Travels to the region & meetings project advisory team 4.5 Support for WB universities laboratory facilities	LeAF	WB universities / local stakeholders
5	Programme support & management 5.1 Administrative and financial programme coordination 5.2 Overall project management 5.3 Organizing kick-off meeting in the Netherlands 5.4 Hardware for WB contact points 5.5 WB Universities contact points working hours compensation 5.6 Setting up NEWEN website and logo 5.7 Auditing	LeAF	Consortium

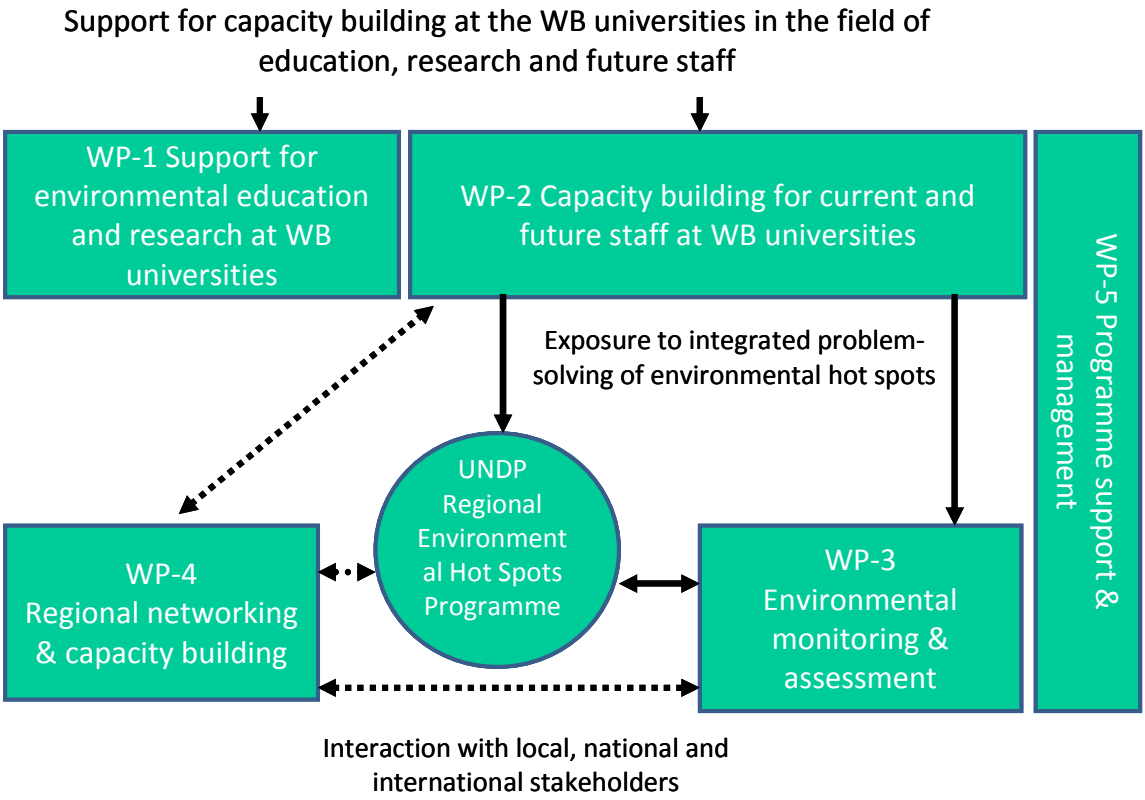


Figure 1. Interaction between the various WPs and relation to the UNDP Regional Environmental Hot Spots Programme

4.3 UNDP Regional Environmental Hot Spots Programme

During the first mission to the WB countries, the UNDP Regional Environmental Hot Spots Programme was proposed by an official from the Dutch embassy in Skopje as an option for collaboration with the NEWEN programme. These Hot Spots often represent environmental problems that require solutions with a multidisciplinary nature. They were chosen since they have transboundary elements that require cooperation of authorities of various countries within the region. Incorporating cooperation with the UNDP Regional Environmental Hot Spots Programme can provide a practical working arena for young researchers and MSc students to work on during the programme. It will provide the opportunity to link natural, social and managerial research and education. Moreover, it provides an option for collaboration with local and national authorities, local stakeholders and with UNDP. The approach is that students and young scientists do their internships and research within UNDP on selected hot spots in the region.

Box 2. UNDP Regional Environmental Hot Spots Programme

"UNDP Montenegro has prepared and started implementation of a 3-year Regional Environmental Hot Spots Programme, which is the biggest regional programme UNDP ever did in the South Eastern Europe. Its main aim is to achieve improvement of environmental situation and quality of life for citizens through the least-cost measures, improved local and national policy dialogue and the supply of domestic professional services in the environmental management sector. While the main focus will be the physical works needed to mitigate the ecological problems, the institutional strengthening and capacity building in the Western Balkans countries to address environmental problems through regional co-operation will be an important subject addressed by the programme. Between 2007 and 2010 this Programme, funded by the Government of the Netherlands intends to contribute to

sustainable planning and management of natural resources in close partnership with private sector. In six countries/territories in the Region more than 10 million dollars worth of clean up works will be conducted/financed in nine environmental hot spots locations" (www.westernbalkansenvironment.net).



Figure 2. Working locations of the UNDP Regional Environmental Hot Spots Programme

4.4 Work package 1 – Support for environmental education and research

Proposed WP-1 Leader: Wageningen University through Wageningen International

The primary objective of this work package is to support the WB universities in improving their education in the field of environmental sciences. WP2 would include following activities:

The activities in this working package include series of workshops on the modernization of environmental education (WI/WUR):

Activity 1.1. Workshop I: Modernization of Environmental Science Education
The main objective of Workshop I is to inform/train participants (30 in total) how to develop environmental education programmes including the contextual and organizational aspects. The workshop will train the participants where to begin in addressing environmental sciences as a complex subject within the University curricula and how to deliver a consistent educational programme that is appealing for students. The workshop will present models of developing and conducting such programmes and introduce the main factors of success in achieving good educational results. The workshop programme includes number of sessions during which the participants will be acquainted with important environmental sciences concept, literature and interactive (participatory) models of training and education for

diverse audience of trainees. The participants will accomplish an assignment as an example of developing environmental education programmes in the their countries taking into account the local educational system, what types of specialists are to be trained, what topics are to be involved in the curricula and how they are related to practicing professions in environmental field.

Activity 1.2. Workshop II: Staff training on curriculum development

Participants will be trained on how to design a curriculum according to the guidelines of the European Union: the Bologna standards, the ECTS system, quality assurance.

The participants of the workshop will be acquainted with the standards of the international EU education and will be able to adapt that in their specific local situation. The fluent understanding of the European education system will strengthen the WB University staff to develop a curriculum that allows more easily to transfer students and research knowledge in the field of environmental sciences at broader European level outside the WB region.

Short description of the ECTS system to be introduces during the workshop

The **ECTS grading scale** is a grading system defined in the ECTS framework by the European Commission. Since many different grading systems co-exist in Europe, and considering that interpretation of grades varies considerably from one country to another, if not from one institution to another, the ECTS grading scale has been developed in order to provide a common currency and facilitate the transfer of students and their grades between European higher education institutions, by allowing the different national and local grading systems to be interchangeable. Grades are reported on a carefully calibrated and uniform A–F scale combined with keywords and short qualitative definitions. Each institution make their own decision on how to apply the ECTS grading scale to their own system.

The ECTS grade is not meant to replace the local grades, but to be used optionally and additionally in order to effectively "translate" and "transcript" a grade from one institution to another. The ECTS grade is indicated alongside the mark awarded by the host institution on the student's transcript of records. The receiving institutions then convert the ECTS grade to their own system. Higher education institutions are recommended (though not forced) to provide ECTS grades for all of their students and to take into account the ECTS grades awarded by other institutions. A certain amount of flexibility is advised, since the ECTS grading scale was designed to improve transparency of a variety of grading systems and cannot, by itself, cover all possible cases.

Activity 1.3. Workshops: Proposal writing and funds raising for environmental research (WUR)

The objective of this activity is to train preferably more than 12 people in developing project proposals in the field of environmental protection and how these can be submitted to a donor organization for funding. This workshop will introduce the full process of a proposal preparation including the development of project ideas between multiple partners, forming consortiums, conducting negotiations and stakeholder consultation, acquisition and writing project proposals. The workshop will present relevant funding opportunities for the WB region for which the WB universities have the opportunity to jointly develop and submit proposal. Some of these funding opportunities to be discussed with the participants are the. EU Framework Programme for research (FP 7), EU education funding programmes such as NUFFIC, Erasmus, Socrates, bilateral funding programmes etc. This activities can take place both in Wageningen and/or in WB region.

4.5 Work package 2 – Capacity building for current and future staff

Proposed WP-2 Leader: UNESCO-Institute for Hydraulic Engineering, Delft

One of the objectives of the NEWEN programme is to train future staff of the WB universities. The activities in this work package are focusing on education of staff and future staff of the selected universities in the West Balkan. The proposed activities are:

Activity 2.1. MSc fellowships (WUR, UNESCO-IHE, IVM-VU)
From each WB University 3 students will be selected for their MSc studies in environmental sciences in one of the 3 participating Dutch Universities. As 6 WB universities are involved, the number of MSc students will be 18 in total. The exact profiles will be selected in close cooperation with the WB Universities and will follow a thematic integrated approach e.g. related to UNDP programme on clean up of environmental 'hot-spots' in the West Balkan.

Activity 2.2. NEWEN days (UNESCO-IHE in cooperation with WUR and IVM-VU)
The MSc participants as well as supervising (Dutch) University staff involved will meet each other at the so-called NEWEN days. During these days the progress of the MSc studies are presented and discussed. Hereby the MSc students can learn from each other and will meet students from different WB countries leading to a network of people in the WB.

Activity 2.3 Online courses for University staff (UNESCO-IHE)
An online course will be developed for WB University staff that is tailor-made to the environmental situation in the WB. It will run 2 times, 4 staff per WB university can apply, resulting in 48 participants in total. The advantage of the course is that a lot of University staff can be exposed to the knowledge and expertise without the necessity to travel. It contains lecture notes and learning tools such as presentations, videos featuring case studies from WB (the MSc study results will be used as cases) and other countries, interviews with experts, audio materials, as well as a discussion area where fellow participants and lecturers can meet.

Activity 2.4. Tailor-made course for University staff (UNESCO-IHE)
A short (3 weeks) course considering the environmental situation in the WB will be developed for University staff of the WB countries. 4 Staff per WB University (24 participants in total) will stay at UNESCO-IHE in Delft. The participants will be exposed to a variety of lectures, exercises and excursions in The Netherlands. Moreover, they can meet the MSc participants and will learn from each other leading to a specialist network.

Activity 2.5. PhD proposal writing course (WUR)
As no PhD students can be included in the NEWEN programme proposal, it is proposed to include a training session for 12 future PhD students on how to write a proposal. It is a course given by the graduate schools of the WUR to professionals and PhD students
The general aim of this course is to give participants an insight in the process of (getting started with) research and the methodology pitfalls that may be encountered between formulating a research problem and writing a scientific paper. This course addresses methodology issues of importance to quantitative, qualitative and mixed methods strategies.
By the end of this course participants will be able to:

- formulate research questions, and to decide on the appropriateness of hypotheses

- make an informed choice between a number of study designs
- review pros and cons of several data collection methods
- decide on a sampling strategy suitable for research

In this course we will go through the steps from formulating a research problem to writing a research proposal and writing a research report. Participants will work on their own project by means of assignments. By the end of this course they will have developed a (skeleton) research proposal or a paper proposal, depending on the entrance level and elaborateness of the PhD proposal.

Activity 2.6. Post docs & curriculum development (WUR/ UNESCO-IHE/ IVM-VU))

This element includes offering Post Doc researchers to follow refresher courses at one of the Dutch universities (one scientist from each WB country) in relevant field to the NEWEN project. Budget could also be used to allow senior staff members several weeks/months stay in the Netherlands to follow one or two modules to be transferred later to their home university.

Activity 2.7. Internships and thesis topics related to environmental 'hot-spots' in the West Balkan (WUR, UNESCO-IHE, IVM-VU in close cooperation with WB universities)

To guarantee a good exposure to the 'hot-spots' conditions an internship and / or thesis trackin the WB is obligatory part of the MSc study for all students. The work will contribute to fact finding (monitoring and assessment, WP-4) and developing strategies and policies to solve the large and often transboundary environmental problems. The work is meant to form inputs into the workshops for local stakeholders and policy makers that are foreseen under WP-5. A special fund has been reserved for the internships / thesis projects related to hotspots. The members of the project management team will be jointly in charge of the allocation of these funds. The research on hotspots is also meant to be jointly supervised by cooperating supervisors from the WB universities and the Dutch universities.

4.6 Work package 3 - Environmental monitoring & assessment

Proposed WP3 Leader: Institute for Environmental Studies (IVM), Vrije Universiteit Amsterdam

Scientific knowledge of the environment is the indispensable basis for all environmental management. WP3 will focus on the interdisciplinary field of environmental monitoring and assessment – one of the key areas of scientific research and education that supports environmental policy-making. It is also meant to transfer knowledge and approaches for environmental monitoring and assessment that are crucial for many EU regulations. The work within this WP will be related to the defined environmental hotspots (see WP 1 and Chapter 5).

Introduction to Environmental Monitoring and Assessment

To acquire knowledge for protecting and preserving the environment, monitoring programmes of high quality and fit for purpose (including quality assurance) need to be carried out in order to understand and assess the condition of the environment which is so often subject to impacts of anthropogenic activities. The results of the assessment must be interpreted and presented with clarity – an effort that requires special attention at the interface of science and policy. Monitoring results help us evaluate the effectiveness of measures taken (and planned) and help us identify and prioritize areas requiring action.

Critical to monitoring and assessment activities is the communication and integration of knowledge, know-how and progress that has been made elsewhere. Additionally, the environment and environmental impacts caused by e.g. pollutants do not recognize political borders and therefore commonly result in transboundary issues requiring transboundary cooperation in monitoring (e.g. river basin management networks, European Water Framework Directive, OSPAR Marine Monitoring, etc.).

The Balkan countries participating in the NEWEN project are party to various international conventions (e.g. Stockholm POPs Convention) and - to various degrees - are preparing for potential future accession to the EU. Besides the national programmes in each Balkan country, the international conventions and a variety of EU Directives require that environmental monitoring be carried out to achieve the objectives set out for the various national and international agreements. Therefore, a WP on Environmental Monitoring and Assessment is a practical need of the Balkan countries and was identified as an area in which capacity building would be filling in a gap in university education and research.

WP3 will contribute to the NEWEN project goals by:

a) Providing a framework for communication in environmental monitoring and assessment research through joint fieldwork and a joint seminar/workshop
b) Performing field work (e.g. sampling, analyses) and incorporating presentation of fieldwork results in workshop form
c) Designing and offering a seminar to students with Balkan university professors, which can later be imbedded into curricula of the participating universities.
d) Having staff of IVM, (and UNESCO-IHE and/or WUR) in cooperation with Balkan university staff organise and coordinate the seminar and workshop activities, and share in the responsibilities for giving lectures and supervising fieldwork.
e) Contributing a great effort to perform the required work for coordinating of the WP3 activities. There are many complicated or technical aspects that have to be organised from a distance. Intensive communication and cooperation between Dutch and Balkan university partners is an important key to success.

Focus of WP3
The environmental monitoring focus in WP3 includes a seminar/workshop, and fieldwork (field site/case study) will be an (aquatic) environment in which organic microcontaminants, eutrofication and/or metals will be a key issue in the environmental monitoring. A transboundary location would be preferable.

DESCRIPTION OF WORK

Activity 3.1 Preparation of Fieldwork and Seminar/Workshop
The fieldwork (case study) and seminar/workshop will be held in one of the participating Balkan countries at the study site to be selected in this workpackage. This workpackage requires intensive contact between Dutch and Balkan universities in the organisation. There will be many technical and logistical details, as well as theoretical topics to be covered. A great deal of time will have to go into the preparation.

The following components will be covered in this first activity:

1. contact with WB university scientists (professors) intensified in order to create a detailed workplan and assign responsibilities

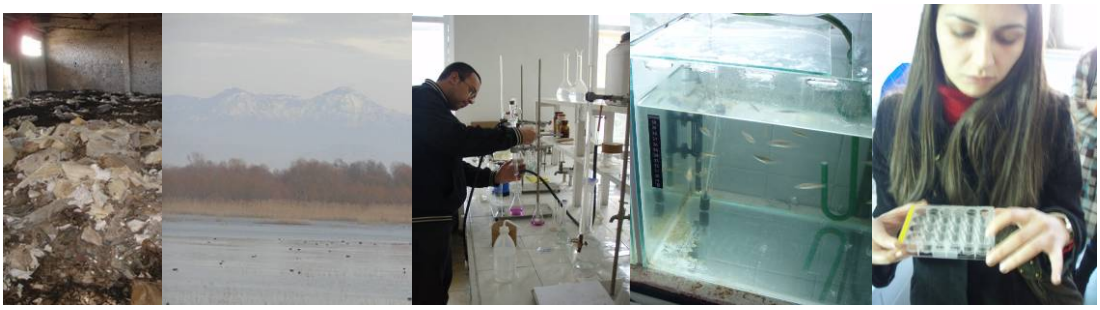
2. contaminated site selection based on a set of criteria and expert judgement (e.g. transboundary location in the WB region such as Lake Shkoder/Skadar on the Albanian/Montenegrin border)
3. local scientist/professors will be asked to prepare a seminar session according to their own expertise
4. Dutch university scientist(s) will prepare seminar sessions in consultation with WB university scientists
5. Dutch and WB university scientists will cooperate in organising a field site and logistics
6. Dutch and WB university scientists will cooperate in organising facilities for a seminar and interactive workshop (room, tables, chairs, beamer, computers, etc).
7. Dutch and WB university scientists/staff will cooperate in organising logistics (flights, hotels, catering) for activities in the Balkans
8. Excellent students with a good knowledge of English from each of the 6 WB universities will be selected to attend (e.g. max. 3 from each university). Also 1-2 professors from each university will be invited to attend.
9. Excellent student(s) with a good knowledge of English will be selected for Masters studies related to the contaminated site at IVM, Vrije Universiteit, in the Netherlands. This student must have the basic skills necessary to begin the project (basic ecotoxicology or chemistry and laboratory experience).
10. Sampling design and protocols will be written for sampling and analysis of ecological and/or chemical environmental parameters.
11. At least one pre-meeting with Dutch and local organisers in the WB will have to take place in order to ensure that the activities run smoothly.

Activity 3.2 Fieldwork at a Contaminated site in the WB region – monitoring and assessing pollution stress

At the field site selected in a participating WB country, e.g. Lake Shkoder/Skadar, a sampling plan will be developed in order to assess the chemical and ecological status of the site. This will give students the opportunity to learn about good sampling design (which is critical for national monitoring programmes their countries will be updating and developing in the coming years), they will practice various sampling techniques for ecological/biological and chemical analysis, they will perform biological and chemical analysis of collected samples. They will interpret their results, write scientific reports in the style of peer reviewed papers in English (with abstract, introduction, materials and methods, results, discussion and conclusion, references), and present them to their peers in the workshop sessions, and stimulate discussions. They will learn how to refer to other peer reviewed literature in their work and how to communicate their results to a broader audience of policy makers etc.

Activities will be both centralized and in smaller groups. In the smaller groups, students will collaborate with students of other nationalities. Each group will be dedicated to a particular topic or task with a senior scientist (WB or Dutch) as supervisor. The groups will carry out sampling, sample analysis, prepare graphs, tables and written description of results, discussion of results on paper. They will co-author a field study report consisting of an abstract – introduction - materials and methods - results (graphs, tables and written description of results), discussion, conclusion, acknowledgement, references, appendices and supporting information. They will collectively contribute to a presentation in power point

or in poster form and one or two students per group will present the results to the rest of the group in the final workshop.



Activity 3.3 Seminar and Field Study Workshop Sessions

The seminar is designed to give an introduction to basic topics in Environmental Monitoring and Assessment with a focus on the aquatic environment and help students communicate this in writing and in presentations.

The field study will be presented by the students in a workshop. This requires good scientific communication skills (and good English skills). The students will learn how to logically structure their work in the research process and enable them to practise communicating the scientific results of environmental monitoring and assessment to peers and others, such as policy makers. An open option to be discussed with Balkan universities is to invite representatives from relevant local ministries to attend the final workshop to provide feedback, input or ask questions to the students in an educational manner.

3.3.1 First Seminar Session. Introduction to Environmental Monitoring and Assessment

These topics will be covered at an introductory level in a seminar presented by Dutch and WB scientists:

- Introduction to chemical pollution and ecotoxicological effects in the environment – fate, occurrence, bioaccumulation, biomagnification, persistence, levels, analytical techniques, toxicity bioassays and dose-response relationships, bioindicators
- environmental contamination monitoring.
- Risk assessment of chemicals in the environment
- Monitoring to support environmental policy (e.g. EU-Water Framework Directive)
- Good sampling design in environmental monitoring
- General introduction to sampling techniques in environmental monitoring
- General introduction to analytical techniques in environmental monitoring
- Quality assurance and quality control of environmental monitoring data

3.3.2 Second Seminar Session. Writing and presenting scientific papers or reports

Attention will be paid to scientific communication through writing and presenting the results of scientific work. This will be practised in presenting the field work studies.

Topics:

- elements of effective scientific communication (peers, policy makers)
- elements of a good scientific paper or report

- studying examples of scientific papers on relevant topics – different papers on different but relevant topics will be distributed for reading and analysis by students.
- discussion of the elements of a good scientific paper/report.

3.3.3 Workshop: Presentation of results of field studies by students

- Students will prepare in groups presentations on the sampling work they did in the field, the results they found from their analysis, how they controlled the quality of their data, what their data means, how this compares to data found at other contaminated sites, what the implications of their research is for policy makers, take home message.
- A discussion will be held at the end of each presentation.
- This session will be co-chaired by a student and a university scientist so that students can practice introducing speakers and asking questions.
- The university scientists will evaluate the students and provide feedback.

Activity 3.4 Reporting

The Dutch scientist will prepare a report of the results of activities of WP4. The educational materials, sampling and analytical plans used for the fieldwork and seminars will be included in the annexes of the report.

Products of WP3 will include:

- Seminar lecture slides and lecture materials (3.1)
- Sampling design and protocols (3.1)
- Analytical data (3.2)
- Scientific reports and presentations by students (3.3)
- Activity report of WP3 (3.4)

LINKS WITH OTHER WPs:

- practical example of more modern teaching method approach which is addressed in (WP1)
- university teaching staff will participate and can apply the lecture material and case study in their own curricula (WP2)
- end results & conclusions in form of a paper can be presented at one of WB regional events (WP4)
- MSc scholarship(s) for laboratory work in the Netherlands coupled to this workpackage's fieldwork will also strengthen Dutch-Balkan scientific bonds through joint research and publications. Masters student work with Balkan samples at the IVM/VU Laboratory. The IVM laboratory will host and supervise the work of an excellent English speaking student from a WB university who will analyse field collected samples from the WB at the laboratory of the IVM in Amsterdam. The selected student will have a background in chemistry and/or ecotoxicology. Various techniques are available at the IVM laboratory. The student will be further trained in the appropriate techniques for chemical and/or (eco)toxicological analyses. These techniques will be applied to the analysis of the samples the student brings from the Balkans. The results will be submitted for publication to a peer-reviewed journal and presented at an international conference (e.g. SETAC Europe Meeting). (WP2)

4.7 Work package 4 - Regional networking and capacity building

Proposed WP-4 Leader: Lettinga Associates Foundation (LeAF)

The objective of WP4 is facilitating the development of regional networks between WB university staff members and scientists with local stakeholders and policy makers.
A clear aim is also to stimulate transboundary cooperation in the field on environmental themes. Activities under this WP require intense communication with all partners and the emphasis is on regional activities.
In addition, this WP aims to create opportunities for capacity building of local government officials that are working in the field of environment and education.
Another element is to exchange work and experiences between regional universities through a symposium and workshops.

As for now, the following activities are proposed:

Activity 4.1. Regional workshops and trainings for scientists & policy makers (LeAF, WUR and all other partners)
The aim is to bring scientist and policy makers together around selected topics, with special reference to the hotspots. One of the key elements here is to work in cooperation with UNDP on the environmental hotspots and to help transfer the knowledge that is generated in WP 2 & 3 into a broader decision making arena. The results of the university work will be presented and round table discussions can take place .

In addition the objective is to create opportunities for capacity building of local government officials and NGOs that are working in the field of environment and education. These trainings should be tailor made. The selection of topics will be based on an assessment of the needs. Some first ideas for that were generated during the missions are short trainings on:
1. urban solid waste and wastewater management
2. sustainable land management and soil erosion
3. pollution management
4. nature conservation

The topics are however open for selection. Depending on the selected topic, different experts from the Dutch and WB universities will be involved in organization.

Activity 4.2. Young scientists' workshop (WB partners & LeAF)
This workshop aims to bring young regional scientists together, present their research work in environmental sciences and have open discussions. This platform should also create room for the start of joint research initiative.

Activity 4.3. Regional NEWEN symposium for presenting results of research within the programme (WB partners & LeAF)
This symposium is planned at the end of the project as a meeting point for all partners and place for presenting the results of research done within scope of NEWEN project to a larger audience.

Activity 4.4. Travels to the region & meetings with project advisory team
Several regional meetings are planned with the programme's advisory board - staff from the WB universities, Ministries for Environment and Education, Dutch embassies - where all parties involved can contribute to the programme by giving suggestions on the best way to proceed with upcoming NEWEN activities.

Activity 4.5. Support for WB universities laboratory facilities
A fundamental prerequisite to start a successful networking process is the availability of a certain minimum of laboratory facilities. As indicated in the inception phase by partners in the WB universities and as noted during the visits to the WB, this was not always the case. The lack of facilities was again specifically mentioned in the feedbacks that were received from the WB region on the first draft proposal. WB partners expressed the necessity of laboratory equipment as being crucial for successful participation in research projects in general and NEWEN in particular.
This activity was included to satisfy the remarks from the WB universities. The approach followed in Nuffic projects was partly followed to implement this activity.
A number of steps necessary to improve the standard of the laboratory facilities in the WB partner universities are included. The procedure will be as follows:

- Assessment of the current status of laboratory facilities. In collaboration with the WB partner universities an overview will be made of the current status.
- WB partner universities will then be invited to submit proposals on how to improve the current facilities.
- The Project Management Team will evaluate the proposals and decide on allocation of the budget.

Note that the amount allocated for this Activity is an absolute maximum, i.e. remaining funds from other programme activities cannot be reallocated to this activity.

4.8 Work package 5 – Programme support and coordination

Proposed WP5 Leader: Lettinga Associates Foundation (LeAF)

The aim of the WP5 is to facilitate internal project communication and the coordination of activities between the different WPs. It will be the instrument for flexible and participatory management of the project, and for fine-tuning of the allocation of resources between activities. It will serve the purpose of establishing cross-WP dialogue and promoting exchange between different activities.
Following activities are included in this work package:

Activity 5.1 Administrative and financial programme coordination
Under this activity following actions will take place:

- Administration of the financial contribution from the Dutch Ministry of Foreign Affairs and managing the allocation of the contribution to the Consortium.
- Coordination of the reporting to the Dutch Ministry of Foreign Affairs on the basis of the information gathered from the project partners.
- Preparing supporting documents for the Project Management Team and WB universities contact points and addressing the Project Deliverables to the Commission, after prior validation by the Project management Team.

Activity 5.2 Overall project management
This activity will include coordination of the relations between the partners and implementation of an efficient management and coordination of the project. Project advisory board will be organized and represented with the WB university staff, regional Ministries for Environment and Education, regional Dutch embassies and other relevant stakeholders.
Meetings of the Project Management Team will be organized every six months.

Activity 5.3 Organizing kick-off meeting in the Netherlands
At the beginning of the programme, a kick-off meeting will be organized in the Netherlands, where agreements on the project implementation will be achieved.

Activity 5.4 Hardware for WB contact points
WB University contact points will be provided with projects' laptops. After end of the project, this hardware will belong to the University/Faculty of the contact point.

Activity 5.5 WB Universities contact points working hours compensation
The WB universities contact points will provide support to the programme (2 working days per month) and will be reimbursed for these inputs. Part of their responsibilities will include: updating of the project website, informing potential participants from their university about the upcoming events within the NEWEN programme, PR activities, reporting to the project coordinator, attending kick-off and regional meetings.

Activity 5.6 Setting up NEWEN website and logo
NEWEN website will be launched soon after beginning of the programme, as an important communication tool between the partners.

Activity 5.7 Auditing
Financial auditing will be prepared on annual basis and submitted to the Dutch Ministry of Foreign Affairs.

5. Programme organization

The organogram below (Figure 2) shows the proposed organization of the NEWEN programme. The diagram relates to Work package 5 (Support and coordination of the programme). The programme organization consists of:

Programme management team
The programme management team (MT) is responsible for the execution of the programme and takes strategic decisions. The MT has contains a representative of WUR, Unesco-IHE, VU and LeAF. Each organization also coordinates one work package.

Central coordinator
The central coordinator (LeAF) is responsible for overall project management. Responsibilities include

- administrative and financial coordination of the programme
- end responsibility for yearly progress reports, financial reports and audits
- arranging cooperation agreements for the consortium members.

The central coordinator is also the primary contact organization with the Dutch embassy of Belgrade & Dutch Ministry of Foreign Affairs.

University contact points
At each WB University there will be one main contact person (CP). The CPs will provide support to the programme (please see activities 5.4 and 5.5 under WP5).

Advisory board
The advisory board provides advice to the consortium and especially the management team on the execution of the programme. It consists of representatives from the West Balkan universities, the regional Dutch Embassies, regional Ministries for Environment & Education.

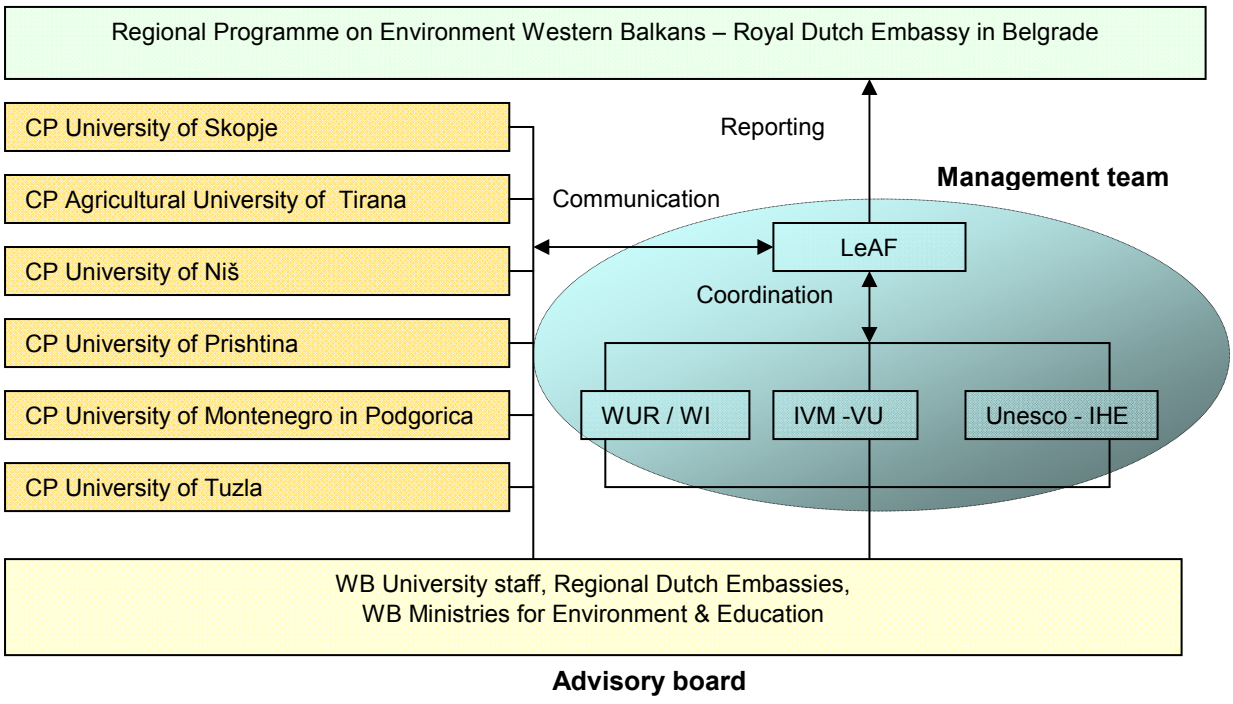


Figure 2. Organogram of NEWEN

6. Deliverables and planning

6.1 Deliverables

Table 6. Expected deliverables and possible risks for tasks under different WPs

Activity	Deliverable(s)	Indicators	Risks/assumptions
1.1. Workshop I: Modernization Environmental Science Education 1.2. Workshop II Staff training curriculum development 1.3. Workshops CB for proposal writing and fund raising 1.4. Coordination	1.1. Workshops successfully delivered to WB participants 1.2. The planned number of local exerts trained 1.3. Draft project proposal prepared 1.4. Communication between organizers and participants established	1.1. Evaluation report on the workshop training results 1.1.-1.2. Attendance lists 1.1-1.2. Lecture notes and power point slides 1.3. Course evaluations by participants 1.4. Participants and organizers informed and cooperating	No particular risks are expected. Assuming that no problems will occur to ensure the appropriate number of participants for the workshops.
2.1. MSc fellowships	2.1. 18 WB students trained at MSc level	2.1. Students commenced the MSc. Education programme (applications received, academic acceptance by NL institutes) 2.1. Students intermediate training results 2.1 Thesis proposals	Time planning and good organization of the MSc students arrival and study within the receiving Universities will be essential to prevent risks. English tests necessary for application at Dutch Universities are a limiting factor for students in the WB region.
2.2. NEWEN days 2.3. Online courses 2.4. Tailor made short course 2.5. PhD proposal writing course 2.6. Post-Doc curriculum development	2.2. NEWEN days (5) bringing together NEWEN students in NL 2.3. Online course successfully delivered 2 times to 24 participants 2.4. Tailor made course successfully delivered to xx participants 2.5. PhD proposal course successfully delivered to xx participants 2.6. Post-Doc curriculum development course successfully delivered to xx participants	2.2. 5 short reports about NEWEN days 2.3. course material online, certificates granted to participants, course evaluation by participants 2.4. - 2.6. Attendance lists, Lecture notes and PowerPoint slides, Course evaluations by participants	Communication must be ensured between the Universities in the WB and in the Netherlands for regular and any unexpected matters. No particular risks are expected.

2.7. Internships for MSc students in WB countries	2.7. xx internships of at least xx months completed in WB	2.7. Internships: xx internship reports by students (containing logbook of activities)	Preliminary agreements must be made between students and supervisors. If UNDP programme does not match NEWEN internships timing, another research in the region will be included.
3.1 Preparation of fieldwork and seminar 3.2 Fieldwork 3.3 Seminar and field study workshop 3.4 Supervision of MSc student at IVM 3.5 Reporting	3.1. - 3.2. Field study successfully completed by xx participants 3.3. Workshop attended by xx participants 3.4. Paper on research results 3.5. Report	3.2. Logbook of field activities 3.3. Workshop programme + report (containing presentations by participants about their results) 3.3. Evaluation by participants 3.4. Research proposal	No particular risks are expected. Local support has to be ensured for the organization of the field work.
4.1. Regional workshops 4.2. Young scientist workshops 4.3. NEWEN symposia 4.4. Regional travels within WB 4.5 Support for WB universities laboratory facilities	4.1. - 4.2. Workshops successfully delivered to xx WB participants 4.3. Symposia attended by xx participants 4.4. xx meetings with project advisory board 4.5. Laboratory equipment delivered	4.1.-4.2.Short workshop report by Dutch staff attending) 4.1.-4.2. Attendance lists 4.1.-4.2. Lecture notes and power point slides 4.3. Symposium proceedings 4.4. Logbook of activities 4.5. Applications for funds for laboratory equipment	No particular risks are expected. Local support is expected to ensure the participation of appropriate audience in the events. No particular risks are expected besides unexpected changes in the political situation in one of the partner countries.
5.1 Administrative and financial programme coordination 5.2 Overall project management 5.3 Kick-off meeting NL 5.4 Hardware WB contact points 5.5 Contact points working hours 5.6 NEWEN website 5.7 Auditing	5.1 Yearly progress & financial reports 5.2. Bi-annual progress report 5.3. Agreements achieved on the project implementation. 5.4. Laptops delivered and installed 5.5. falls under 5.1. 5.6. Website 5.7. Yearly audit report	5.1 Time writing reports 5.2. Five progress reports 5.3. Agenda and minutes of the kick-off meeting 5.4. Purchase documents 5.5 Time writing reports 5.6. Website operational and regularly updated	5.1.& 5.2. No particular risks expected as far an agreement between all partners is achieved 5.3 - 5.7 Assuming all partners and interested and will be present, no particular risks are expected.

6.2 Planning

		sep-08	okt-08	nov-08	dec-08	jan-09	feb-09	mrt-09	apr-09	mei-09	jun-09	jul-09	aug-09	sep-09	okt-09	nov-09	dec-09	jan-10	feb-10	mrt-10	apr-10	mei-10	jun-10	jul-10	aug-10	sep-10	okt-10	nov-10	dec-10	jan-11	feb-11	mrt-11	apr-11
		M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32
WP	activity																																
1																																	
	1.1.Workshop: modernization of Environmental Science Education																																
Support for environmental education and research	1.2.Workshop: Staff training on curriculum development																																
	1.3.Workshops: Capacity building for porposal writting and fund raising																																
	1.4.Coordination																																
2	2.1.MSc fellowships																																
Capacity building for current and future staff	2.2.NEWEN days in the Netherlands -joined activity for MSc students																																
	2.3.On-line courses for University staff																																
	2.4.Tailor made courses for University staff																																
	2.7.Internships for MSc students in their home countries																																
	2.5.PhD proposal writing course																																
	2.6.Post-Doc researches visiting NL																																
3	3.1.Preparation of fieldwork and seminar/workshop																																
Environmental monitoring and assessment	3.2.Fieldwork at a contaminated site in WB region-monitoring and assessment																																
	3.3.Seminar and Field Study Workshop Sessions																																
	3.4.Supervision of MSc student at IVM (NL)																																
	3.5. Reporting																																
4	4.1. Regional workshops with scientists and policy makers																																
Regional networking and capacity building	4.2.Young scientist workshop																																
	4.3.NEWEN Symposia																																
	4.4.Travels to the region & organizing meetings of project steering committee and management team																																
	4.5. Support for WB universities laboratory facilities																																
5	5.1.Administrative and financial programme coordination																																
Consortium management	5.2.Overall project management																																
	5.3.Organizing of kick-off meeting in the Netherlands																																
	5.4.Hardware for WB CP																																
	5.5.WB hours compensation																																
	5.6.NEWEN website																																
	5.7.Auditing																																

Budget

WP	activity	WI/WUR Unit cost	Units	Total	Unesco-IHE Unit cost	Units	Total	IVM-VU Unit cost	Units	Total	LeAF Unit cost	Units	Total	WB Universities Unit cost	Units	Total		
1	1.1.Workshop on modernization of Environmental Science Education	888	30	26640										1500	24	36000		
Support for environmental education and research		432	5	2160														
				3650														
	1.2.Workshop: Staff training on curriculum development	888	14	12432														
		432	5	2160														
				3650														
	1.3.Workshops: Capacity building for proposal writing and fund raising	888	28	24864										1500	20	30000		
		500	2	1000														
		350	10	3500													SUM WP1	177136
	1.4.Coordination	888	35	31080														
2	2.1. MSc fellowships													21000	6	126000	MSc IVM-VU	
														47000	6	282000	MSc Unesco-IHE	
														41000	6	246000	MSc WUR	
Capacity building for current and future staff	2.2. NEWEN days in the Netherlands - joined activity for MSc students	800	5	4000	666	10	6660	800	5	4000	800	5	4000					
					2000	5	10000											
	2.3.On-line courses for University staff				666	20	13320											
					13200	2	26400											
	2.4.Tailor made courses for University staff				4000	24	96000											
	2.5.PhD proposal writing course	888	14	12432										1500	12	18000		
		432	5	2160														
				3650														
	2.6.Post-Doc refresher courses in the NL													15000	6	90000		
	2.7. Internships for MSc students in their home countries						0							2000	18	36000	SUM WP2	1043622
	Additional research costs per student				2000	18	36000											
	Research cost support													1500	18	27000		
3	3.1.Preparation of fieldwork and seminar/workshop							850	50	42500				1452	30	43560		
										6500								
Environmental monitoring and assessment	3.2.Fieldwork at a contaminated site in WB region-monitoring and assessment							850	5	4250								
								700	10	7000								
										16400								
	3.3.Seminar and Field Study Workshop Sessions							1300	5	6500								
								850	24	20400								
								269	28	7532								
								500	4	2000							SUM WP3	180842
	3.4.Supervision of MSc student at IVM (NL)							850	12	10200								
	3.5. Reporting							700	20	14000								
4	4.1. Regional workshops with scientists and policy makers										888	48	42624	440	96	42240		
Regional networking and capacity building											500	8	4000	5000	4	20000		
	4.2.Young scientist workshop										923	2	1846	1440	24	34560		
											888	6	5328	5000	1	5000		
	4.3.NEWEN Symposia	923	2	1846	923	2	1846	923	2	1846	500	2	1000	440	30	13200		
											728	6	4368	5000	1	5000		
	4.4.Travels to the region & organizing meetings of project steering committee and management team										728	30	21840					
											888	15	13320					
											1650	10	16500				SUM WP4	539364
	4.5. Support for WB universities research & laboratory facilities													50000	6	300000		
	Other costs												3000					
5	5.1.Administrative and financial programme coordination										600	64	38400					
Consortium management	5.2.Overall project management										728	320	232960					
											888	48	42624					
	5.3.Organizing of kick-off meeting in the Netherlands										888	4	3552	1058	12	12696		
	5.4.Laptops for WB management team													1000	6	6000		
	5.5.Staff WB working hours compensation (1 p.per university)													200	384	76800		
	5.6.NEWEN website & logo										3500	1	3500				SUM WP5	444532
	5.7.Audit											1	25000					
	Other costs												3000					
	Reserve fund/ contingency																	100000
		WI/WUR	total	135224	Unesco-IHE	total	190226	IVM-VU	total	143128	LeAF	total	466862	WB Universities		1450056	total	2485496

Annex 1. Questionnaires filled in by the WB universities

Questionnaire for the Universities in the Western Balkan region

1. Name and address of the University

FACULTY OF OCCUPATIONAL SAFETY IN NIŠ, 12 CARNOJEVICA Str., 18000 NIŠ

2. Size of the University (student & staff members)

students – 950 staff members - 104

3. Which educational programmes are offered in the field of Environmental sciences at your University (please indicate number of BSc, MSc students)?

Please indicate the Faculty name(s) and research group(s): STUDY PROGRAMMES Basic academic study 1. Working and living environment protection Master 2. Environmental engineering 3. Occupational safety 4. Fire protection 5. Communal system management 6. Emergency management

4. What kind of (inter-regional) cooperation with other Universities already exists at your University?

1.Congress of Students of Environmental Protection of South Eastern Europe – COSEP (www.cosep.info) 2. The exchange of students, 3. The exchange of teachers, 4. Exchange of scientific materials, publications and information 5. Joint research and research meetings 6. The publishing of contributions in scientific journals and conference proceedings and paricipation in conference ...

5. Please put the contact details of the Dean or other contact person for project NEWEN from the Department.

1. Dean Prof. Dragan Spasić, PhD, phone: + 381 18 52 97 02, fax: + 381 18 24 99 62, mobile: +381 65 267 0 267
2. Vice Deaqn for Quality and Development, Prof.Goran Ristić, PhD, phone: + 381 18 52 97 05, fax: + 381 18 24 99 62, mobile: +381 64 640 50 45

6. Please mention what you see as main environmental problems in your country.

- Solid Waste Management
- Environmental Impact Assessment (EIA) and implementation of International Standards for Environmental Management Systems (EMS and EMAS)
- Air Quality Management (Environmental Monitoring) and Water Resources Management
- Environmental Economy and Sustainable Local Development
- Sustainable Energy Use and the Environment
- Biodiversity and Nature Protection
- Environmental Education and Training and Environmental Project Management

7. What are your expectations from project NEWEN in relation to environmental problems in your country?

- Sustainable universities educational network for cooperation and information excange,
- Sandwich projects for solution of main environmental problems,
- Development and implementation of training programmes for capacity building
- Development and implementation (sandwich) educational study programmes
- Sandwich (WB) curriculum development and exchange students (students and ECTS mobility)
- Databases of expert for environmental problem solutions

8. Which of the listed acitivities would be of most interested for your University/Faculty within NEWEN project?

Please indicate you interests in the boxes (rating: 1- not interested; 2 – interested; 3– very interested)

2 MSc fellowships for environmental programmes at Dutch Universities

3 Sandwich PhD programmes (joined research programme)

3 Post –Doc researches (joined research programme)

2 Short refresher courses for University staff of WB Universities

3 Workshops

3 Symposium

This questionnaire was filled in by:

Place: Niš
Date: 14. 01. 2008.

Questionnaire for the Universities in the Western Balkan region

1. Name and address of the University

University Sts Ciril and Methodius Faculty of Natural Sciences and Mathematics Gazibaba bb POB 162

2. Size of the University (student & staff members)

Tehre are 173 staff members and almost 3000 students at our Faculty

3. Which educational programmes are offered in the field of Environmental sciences at your University (please indicate number of BSc, MSc students)?

Please indicate the Faculty name(s) and research group(s): Faculty of Natural Sciences and Mathematics 1. Institute of Biology (Terrestrial Ecology; Hydrobiology; Microbiology-water treatment, Biodiversity; Urban Ecology) 2. Institute of Chemistry 3. Institute of Physics 4. Institute of Geography …

4. What kind of (inter-regional) cooperation with other Universities already exists at your University?

- **Грција:**
  Aristotle University, Thessalonica, University of Macedonia, Thessaloniki, National Technical University, Athens, Technical Educational Institute, Athens University of Thrace, Komotini, University of Thessaly, Volos;
- **Германија:**
  University of Dortmund, Dortmund, Max Plank Institute, Munich, University of Bremen, Bremen, Freie University, Berlin, Germany; Humboldt University, Berlin, Germany; Fachhochschule Merseburg, Merseburg, Fern University, Hagen;
- **Австрија:**
  Technical University of Graz, Graz, Research Studios Austria, Wien
- **Швајцарија:**
  University "St. Gallen", European Organisation for Nuclear Research - CERN, Geneva;
- **Velika Britanija**:
  De Montfort University, Leicester, University of Wolfverhampton, Wolfverhampton, Loughborough College, Loughborough, South Bank University, London, Open University, London;
- **Француија:**
  Alcatel Alenia Space Centre, Cannes, Université de Nice-Sophia Antipolis, Nice;
- **Шпанија:**
  Deusto University, Bilbao, ;
- **Финска:**
  University of Joensuu, Joensuu;
- **Danska:**
  The Royal School of Library and Information Science, København;
- **Литванија:**
  The Science & Technology Park in Vilnius, Vilnius;
- **Албанија:**
  University of Tirana, Tirana, Polytechnic University of Tirana, Tirana, Academy of Sciences of Albania, Tirana;
- **Bugaria:**
  St. Kliment Ohridski University, Sofia,Bulgarian Academy of Sciences, Sofia, South-West University Neofit Rilsky, Blagoevgrad, University Paisii Hilendarski, Plovdiv;
- **Словенија:** Institut Milan Vidmar, Qubqana, Univerzitet na Maribor, Maribor, Institut Jozef [tefan, Qubqana;
- **Романија:** University of Bucharest, Bucharest, University "Politehnica", Bucharest, National Institute for Research & Development in Informatics – ICI, Bucharest, University of Timisoara, Timisoara;
- **Унгарија:**
  MTA SZTAKI, Budapest;
- **Турција:**
  Bogazici University, Istanbul, The Scientific and Technical Research Council of Turkey (TÜBİTAK), Ankara;
- **Босна и Херцеговина:**
  University of Banja Luka, Banja Luka, University "Džemal Bijedić", Mostar, The University of West Mostar, Mostar, University of Sarajevo, Sarajevo, University of Tuzla, Tuzla;

- **Црна Гора:**
  University of Montenegro, Podgorica;
- **Hrvatska:**
  University of Zagreb, Zagreb, Institute Rudjer Boskovic, Zagreb, University of Rijeka, Rijeka;
- **Србија:**
  University of Belgrade, Belgrade, University of Niš, Niš, University of Novi Sad, Novi Sad, Academic and Research Network of Yugoslavia – AMREJ, Belgrade, University of Kragujevac;
- **Молдова:**
  Research and Educational Netwoking Association of Moldova – RENAM;
- **Македонија:** Univerzitet "St. Kliment Ohridski', Bitola, Univerzitet na Jugoisto~na Evropa, Tetovo.

5. Please put the contact details of the Dean or other contact person for project NEWEN from the Department.

1. D-r Ljupcho Melovski - e-mail address: melovski@iunona.pmf.ukim.edu.mk
2. D-r Biljana Janeva (Vice Dean for international colaboration) – bjaneva@gmail.com

6. Please mention what you see as main environmental problems in your country.

- Low implementation of environmental legislation
- Low political interest and priority
- Low awareness and educational level

7. What are your expectations from project NEWEN in relation to environmental problems in your country?

- Increased level of knowledge
- Increased environmental management capacities

8. Which of the listed acitivities would be of most interested for your University/Faculty within NEWEN project?

Please indicate you interests in the boxes (rating: 1- not interested; 2 – interested; 3– very interested)

[3] MSc fellowships for environmental programmes at Dutch Universities

[3] Sandwich PhD programmes (joined research programme)

[2] Post –Doc researches (joined research programme)

[2] Short refresher courses for University staff of WB Universities

2	Workshops
2	Symposium

This questionnaire was filled in by: Dr. Ljupcho Melovski and d-r Biljana Janeva

Place: Skopje

Date: 10.01.08

Questionnaire for the Universities in the Western Balkan region

1. Name and address of the University

University of Tuzla
M.Fizovića 6
75000 Tuzla
Bosnia and Herzegovina

2. Size of the University (student & staff members)

20.000 students
750 employed
550 academic staff

3. Which educational programmes are offered in the field of Environmental sciences at your University (please indicate number of BSc, MSc students)?

Please indicate the Faculty name(s) and research group(s):

1.Faculty of natural sciences - Environmental Chemistry cca 120 BSc cca 30 MSc

2.Electrotechnical faculty Energy and environment cca 300 BSc cca 100 MSc

3.Faculty of mechanical engineering- Environmental energetics cca 120 BSc cca 30 MSc

4. Faculty of technology Process,environm. engineering cca 120 BSc cca 30 MSc

4. What kind of (inter-regional) cooperation with other Universities already exists at your University?

Very developed cooperation with universities in B&H, in the Western Balkan region, good cooperation with european universities in Tempus projects and some research projects.

5. Please put the contact details of the Dean or other contact person for project NEWEN from the Department.

Contact person: Prof.dr.Nusreta Đonlagić
Permanent professor on Faculty of natural sciences
Education activity-Field : Physical chemistry, Electrochemistry
Research activities: Electrochemical methods in environmental chemistry; dynamics of heavy metals in the environment: natural waters, soil; intake of heavy metals; bio-geochemical investigations; application of cleaner technologies , impact of food production on the environment; participation in numerous TEMPUS projects in implementing the new methods in the study programmes related to environmental education)
President of the Managing board of Environmental fund of Federation of B&H
Engaged as an expert in evaluation of Strategy of environmental protection of FB&H

6. Please mention what you see as main environmental problems in your country.

1. Harmonisation of environmental legislature in accordance with European Directives
2. Implementation of existing legislature and bypassing the gaps due to the complex constitutional structure of B&H(two entities; Republic Srpska and Federation of B&H; Federation has cantonal structure)
3. Environmental strategy should be implemented and coordinated on state level based on same principles
4. There is no independent monitoring of possible contamination; there is no accredited environmental laboratory
5. Problems with waste (all kinds) disposal
6. Application of old technologies-results in accidents in natural waters and with soil contamination

7. What are your expectations from project NEWEN in relation to environmental problems in your country?

To form the network which could help improve the educational activities in environmental study programmes; to initiate the activities which could lead to research projects in related fields.
Establishment of proposed Network could strenghthen the awareness of the necessity to implement the standards and norms of sustainable development, preservation of nature, to improve and change the existing technologies .

8. Which of the listed acitivities would be of most interested for your University/Faculty within NEWEN project?

Please indicate you interests in the boxes (rating: 1- not interested; 2 – interested; 3– very interested)

- [X] MSc fellowships for environmental programmes at Dutch Universities
- [X] Sandwich PhD programmes (joined research programme)
- [X] Post –Doc researches (joined research programme)
- [X] Short refresher courses for University staff of WB Universities
- [X] Workshops
- [X] Symposium

This questionnaire was filled in by:

Prof.dr.Nusreta Đonlagić
Place: University of Tuzla; Bosnia and Herzegovina

Date : 8.1.2008.

Questionnaire for the Universities in the Western Balkan region

1. Name and address of the University

University of Prishtina
Mother Theresa Str. n.n. 100000 Prishtina

2. Size of the University (student & staff members)

Number of Faculties: 17
Number of students: 33,753
Number of staff: 1638 (in the academic year 2004/2005)

3. Which educational programmes are offered in the field of Environmental sciences at your University (please indicate number of BSc, MSc students)?

Please indicate the Faculty name(s) and research group(s):

1. Faculty of Mathematical and Natural Sciences- Ecology and Environmental Protection BSc and MSc.
2. Faculty of Education- few courses in Ecology, Environmental education, Biodiversity etc.

4. What kind of (inter-regional) cooperation with other Universities already exists at your University?

Cooperation with many of Uiversities in the region such are: University of Tirana, State University of Tetovo, South Eastern University of Tetovo etc. Also good cooperation with many universities from the western countries such: Austria, Germany etc.

5. Please put the contact details of the Dean or other contact person for project NEWEN from the Department.

Prof. dr. Ferdije Zhushi- Ethemi
Director of Academic Development Office
Rectorate of University of Prishtina
Tel: 00381 38 247069 ext 116
Mob. 00377 44 249636
E mail: Ferdijezhushi@uni-pr.edu

6. Please mention what you see as main environmental problems in your country.

- High level of pollution inherited by the past period- wich is characterised by exploitation of resources withut consideration for environmental impacts;
- Low level of prioritization of environmental problems in the governmental programms and strategies, both in central and local level;
- Lack of expertise in the field of environmental management- the existing staff in the Minsitry is relatively new, with short experience;
- Weak and unexperienced institutions and other structures for environmental management (Ministry of Environment is established in 2002);
- Low level of environmental awareness and education.

7. What are your expectations from project NEWEN in relation to environmental problems in your country?

To assist our University on developing new capacities in the environmental field toward new challenges in front of our society, in the phase of post-status developments and (through MSc and BSc for the staff);
To exchange experiences with Dutch and other univerisities in the filed of environmental education in general and environmental management in particular (through lecturers exchange, joint research programmes, workshops, symposiums etc).

8. Which of the listed acitivities would be of most interested for your University/Faculty within NEWEN project?

Please indicate you interests in the boxes (rating: 1- not interested; 2 – interested; 3– very interested)

[3] MSc fellowships for environmental programmes at Dutch Universities

[2] Sandwich PhD programmes (joined research programme)

[3] Post –Doc researches (joined research programme)

[3] Short refresher courses for University staff of WB Universities

[3] Workshops

3	Symposium

This questionnaire was filled in by: Dr. Zeqir Veselaj, professor assistant, University of Prishtina

Place: Prishtina Date: 27. 12. 2007

Questionnaire for the Universities in the Western Balkan region

1. Name and address of the University

Agricultural University of Tirana,
Koder Kamez,
Tirana
Albania
Tel: +355 (4) 300353 Fax + 355 (4) 300353
E-mail ssulce@yahoo.fr

2. Size of the University (student & staff members)

Number of Diplomas (according to Bologna System – Declaration) is 12.
Number of Faculties : 5 : (i) Agricultural and Environment, (ii) Economy & Agribusiness, (iii) Veterinary Medicine, (iv) Forest and (v) Agri Food & Biotechnology.
Number of Students : 8300 (6400 approximately on full time system and 1900 on part-time system)
Number of students on 7 Master Diploma : 150.
Members staff: 250
Member of Technical Staff: 230

3. Which educational programmes are offered in the field of Environmental sciences at your University (please indicate number of BSc, MSc students)?

Please indicate the Faculty name(s) and research group(s):

1. **Faculty of Agriculture and Environment**
(Agrienvironment and Acology Departement : 450 BSc students and 21MSc students)
1.1. Research group of Environment – Responsible : Prof. Sulejman Sulçe,
1.2 Research group of Ecology – Responsible : Prof. Velesin Peçuli,
1.3 Research group of Soil Science. Responsible : Prof. Ilir Kristo
2. **Faculty of Forest** (Forest Management : 250 BSc students and 20 MSc students).
2.1 Research group of Forest and Environment – Responsible : Prof. as. Vath Tabaku
3. **Faculty of Agri Food and Biotechnology**. (350 BSc students)
3.1 Research group of Hydrology and Biodiversity – Responsible : Prof. as. Spase Shumka.

4. What kind of (inter-regional) cooperation with other Universities already exists at your University?

1. TEMPUS programme, since 1993, in total 25 projects e.g. Balkan network education
2. Bilateral programme (financed by Interreg/CARDS I, II and III)
3. Bilateral programme (financed by tow gouvernments : Albania-Italia, Albania-Greece, Albania-Slovenia, Albania-Macedonia.
4. NATO programme (with Turkie, Greece, Italy, France)
5. Teaching with Tetovo and Prishtina Universities

5. Please put the contact details of the Dean or other contact person for project NEWEN from the Department.

The Dean of Agricultural and Environment Faculty is Prof. as. Ardian MAÇI, latest elected.
For the Department :
Prof. Velesin Peçuli, Prof. as. Seit Shallari, Dr. Aida Bani, Prof. Ilir Kristo and Prof. as. Fatbardh Sallaku

6. Please mention what you see as main environmental problems in your country.

The environmental situation in Albania:
Inversely with GDP (the lowest in Europe) environmental problems are the greatest and most sensitive among the other countries of Europe.

1. The air pollution in main cities is several times higher than in cities of other countries.
2. The forest surfaces are partly destroyed and they are in continual decrease from the year 1945.
3. The number of national parks and protected areas is very small compared to neighbor countries (Greece, Macedonia).
4. The physical pollution (plastic, metal remains, ruined cars) is very high.
5. The food security is in low levels.
6. The natural sources have been used intensively without plans for their regeneration (the land erosion goes up to 100 tons/year/ha).
7. There are no subjects/texts for the environmental education in the high schools
8. The specialists that work in the institutions that are directly related to environment, do not possess the necessary professional formation.

This situation is caused, especially, because of:

1. The absence of environmental culture in the population (we can mention the migration of rural population towards the urban centers, especially in the '90; about 3% of the rural population migrates to the urban centers each year).
2. The environmental education in University has started only seven years ago, while the education in lower school levels has not been clearly programmed yet.
3. The delays and absence in legislative system.
4. The lack of law application for the environment and the management of natural resources.
5. The unwillingness of the Government to update the environment related staff with qualifications in environmental context.
6. The absence of application of the principle "who pollutes should pay"
7. The absence of motivating measures for all those that do not pollute.

7. What are your expectations from project NEWEN in relation to environmental problems in your country?

1. The improvement of teaching quality due to the short visits in Balkan countries of Dutch lectors
2. The improvement of scientific research and teaching due to short and medium term qualifications of the Balkan Universities staffs in Netherlands.
3. Qualitative improvements of young researchers in favor of the further work in the Balkan Universities.
4. The regional collaboration in the near future in terms of professors/students exchange, organization of commune practices of students, organization and exchange of experiences between Universities of Balkan countries.
5. The adaptation of bachelor degrees of the Balkan countries with those of the European Union, according to Bologna System.
6. The improvement of professional competences of teaching staff.
7. The increase of relationships between students of Balkan countries.

8. Which of the listed acitivities would be of most interested for your University/Faculty within NEWEN project?

Please indicate you interests in the boxes (rating: 1- not interested; 2 – interested; 3– very interested)

[3] MSc fellowships for environmental programmes at Dutch Universities

[2] Sandwich PhD programmes (joined research programme)

[3] Post –Doc researches (joined research programme)

[2] Short refresher courses for University staff of WB Universities

[2] Workshops

[3] Symposium

This questionnaire was filled in by: Sulejman SULÇE

Place Tirana

Date January, 21, 2008

Questionnaire for the Universities in the Western Balkan region

1. Name and address of the University

University of Montenegro

Adress: Džordža Vašingtona bb, 81 000 Podgorica, Montenegro

Phones: +382 81 241 777, +382 81 241 888 (Rectorate)

Fax: +382 81 242 301

E mail: rector@cg.ac.yu

2. Size of the University (student & staff members)

The total number of students in the academic year 2004/2005 .....10.645
Academic staff 1.273
Non-academic staff .... 332.
Faculties 14
Independent higher schools 1
Higher schools within faculties 3
Departments..... 35
Study groups..... 26

University of Montenegro is located in 5 towns:
Podgorica, Nikšic, Cetinje, Kotor and Herceg Novi.

The University comprises 14 faculties and one college. Its members are the following units:
- Faculty of Economics
- Faculty of Law
- Faculty of Electrical Engineering
- Faculty of Metallurgy and Technology
- Faculty of Civil Engineering
- Faculty of Mechanical Engineering
- Faculty of Natural Sciences and Mathematics
- Faculty of Medicine
- Faculty of Philosophy
- Academy of Fine Arts

- Faculty of Drama
- Faculty of Music
- Faculty of Marine Studies
-Faculty of Tourism and Hotel Management
- Physiotherapy College

The University includes four scientific research institutes as well:

- Institute of Foreign Languages
- Institute of Biotechnology
- Institute of History
- Institute of Marine Biology

3. Which educational programmes are offered in the field of Environmental sciences at your University (please indicate number of BSc, MSc students)?

Please indicate the Faculty name(s) and research group(s):

1. Faculty of Natural Sciences and Mathematics, Department of biology (BSc)
2. Faculty of Natural Sciences and Mathematics, Department of biology (MSc)

Research groups: 1. Ecology and Biodiversity (MSc)
2. Protection of Environmental (MSc)
3. Experimental Biology and Biotechnology (MSc)

2. Faculty of Metallurgy and Technology

4. What kind of (inter-regional) cooperation with other Universities already exists at your University?

1. International **EULIMNOS** project: "**Integrated monitoring of Skadar Lake**" (www.eulimnos.org) cooperation between University of Skadar/Shkodra , University of Heidelberg and University of Montenegro; (sponsored by the Germans Rector Conference (HRK) Leader project: Dr Andrej Perovic

2. **SEE-ERA NET**:"An integrated strategy to assess and evaluate water quality of Lake Shkodra" Cooperation between Albania, Germany, Greek and Montenegro. Leader project: Dr Andrej Perovic

3. “Interdisciplinary assessment of water resource management in two transboundary lakes in South Eastern Europe (**DRIMON project**)” (cooperation between Norwegian Institute for Water Research (NIVA) and Bioforsk, University of Macedonia, University of Albania and Research Council of Norway. Leader project: Dr Andrej Perovic

4. Marine Science and Coastal Management in Adriatic Region Western Balkan (cooperation between NIVA Norway, University of Albania and University of Croatia). Leader project: Dr Sladjana Krivokapic

5. Bilateral project **“Detection of mikrobial indicators of ecotoxicity in Skadar Lake“cooperation** between Republic Slovenia and Montenegro. Responsible person: Dr Svetlana Perovic

5. Please put the contact details of the Dean or other contact person for project NEWEN from the Department.

Faculty of Science and Mathematics
Dean Prof. dr Predrag Stanišić (e mail: **predrag_stanisic@cg.yu**; phone: +382 81 245 204)

Vice-dean for International and inter-institutional relations:
Ass. Prof Andrej Perovic (Dep. Of Biology)
Contact: e mail: aperov@cg.yu; phone: +382 69 072 082

Ass. Prof Sladjana Krivokapic, physiology of plant and marine ecology (e mail: sladjana69@yahoo.com; phone: +382 68 048 969)
Ass Svetlana Perovic, microbiology and microbial ecology (e mail: svetlana.n@cg.yu; phone: +382 69 079 844).

6. Please mention what you see as main environmental problems in your country.

In the last few decades there is big development in all region of Montenegro (expecially in the coastal zone). It is important to do evaluation and to get knowledge how this development will change living environment since ecosystem will be changed. Also, it is necessary to permanent monitoring all factors which will help in scientific explanation of process in lakes and ecosystem of rivers and sea.

It is necessary to get strong connection between all organization (NGO and Government) which are involved in protection of environment and University which has qualified staff in that subject.

7. What are your expectations from project NEWEN in relation to environmental problems in your country?

We are expecting for new generation of young scientist to get educated and improved in foreign countries. Also, we hope for greater connection between countries in this region.

8. Which of the listed acitivities would be of most interested for your University/Faculty within NEWEN project?

Please indicate you interests in the boxes (rating: 1- not interested; 2 – interested; 3– very interested)

[3] MSc fellowships for environmental programmes at Dutch Universities

[3] Sandwich PhD programmes (joined research programme)

[2] Post –Doc researches (joined research programme)

[3] Short refresher courses for University staff of WB Universities

[2] Workshops

[2] Symposium

This questionnaire was filled in by: Dr Svetlana Perovic and Dr Sladjana Krivokapic

Place Podgorica

Date 28.01.2008.

Annex 2. Report from the mission 1
(author: E. Frederiks, reviewed: T. Hooijmans, D. Kragić-Kok)

BTO Report : Serbia-Macedonia-Bosnia Herzegovina

NEWEN

Netherlands and Western Balkans Environmental Network

Erik Frederiks (WU)
Tineke Hooijmans (UNESCO-IHE)
Darja Kragić-Kok (LeAF)

21 – 27 January 2008

Original travel scheme
21.01. Travel to Belgrade (Serbia);
21.01. Afternoon meeting in the Dutch Embassy
21.01. Evening flying to Skopje (Macedonia)
22.01. Visit to University in Skopje
23.01. Morning flying to Belgrade
23.01. Travel by car to Niš (Serbia)
23.01. Afternoon meeting University Niš
24.01. Travel to Tuzla by car
25.01. Visit to University in Tuzla (Bosnia-Herzegovina)
27.01. Travel back

Monday 21: BELGRADE			**Action**
11h25	Departure from Schiphol		
15h30	Arrival at Belgrade		
16h30	Meeting with **Mrs Zumreta Jahić-Borić** zumreta.jahic-boric@minbuza.nl First Secretary Regional Program on Environment HMA Belgrade	Points discussed: Embassy has Environmental Exit Program which ends in 2010 or 2011. Main activities: 1: cleaning up environmental hot spots 2: Capacity building (Ministries) 3: support NGO sector 4: Education Embassy would like to develop/support a “NPT-like” project in which the main universities in the 5 (+1) Western Balkan countries will be involved.	

		Main objectives are formulated in draft Regional Programme on Environment Western Balkans. All universities are “eligible”. NFP for: Albania, Macedonia and Bosnia First priority is working together in the Balkan, second is European cooperation; Important issues for her: Environmental Management, Policy Making; We can be flexible in the selection of a University as long as they have an Env. Faculty or study; PhD research will hopefully evolve from the project, e.g. in the form of a TEMPUS programme. March 2008: report inception phase + project proposal, decision Embassy around April 2008; Available: $2*10^6$ €, via a “subsidiebeschikking” (Beslissingsschema juridische relatievormen)	
21h15	Flight to Skopje cancelled => back to Belgrade and installation in Hotel		
Tuesday 22: Niš			
10h00 13h00	Departure for Niš by car University of Niš <u>Faculty of Occupational Safety</u>: **Dr. Dragan Spasić/Dean** **Dr. Goran Ristić/Vice Dean** **Mrs. Martina Zdravković/PR**	Program has been changed due to changes in travel schedule. Meetings with Rector and students were cancelled. All discussion was in Serbian language. University => 13 Faculties <u>Staff:</u> 35 Senior lecturers, 35 junior lecturers <u>Money Flows</u>: - 70% Governmental Funds, mostly for salaries and partly – 10% - for - 30% Small resea4rch projects for third parties <u>BaMa introduced</u> (3+2)<u>:</u> In 2007, the first BSc. students have started: 1 BSc. and 5 MSc. specializations. 3 years PhD programme will start next year. <u>SWOT analysis</u>:	

		Strenghts: Experiences, international contacts, alumni have been able to find jobs all over the world *Weaknesses*: limited capacity, equipment, lack of transboundary coorporation *Opportunities*: partners have similar background, are facing similar environmental problems, speak same language and are close to each other *Treats*: politics, money <u>COSEP:</u> international student meeting on Environmental Issues in April 2008 and other meetings foreseen this year. <u>IDENTIFIED NEEDS/proposed project elements</u> 1: MSc fellowships for env. program at Dutch Universities 2: Sandwich MSc (joint programmes MES - Environmental Sciences – MUEM – Urban Environmental Management 3 : Sandwich PhD 4 : Post Docs 5 : Short refresher courses for university staff, interest in e-courses 6 : Workshops and Symposia => Niš is willing to take the lead ! Subjects: Municipal solid waste management, 7 : Stimulating student mobility (regional fellowships) 8: Laboratory equipment 9: Suggested fields are water supply, ww treatment, waste management Laboratories were not shown.	
16h30 17h30 18h00	Short visit of Faculty Dinner with Vice Dean **Dr. Goran Ristić** Departure for Skopje Macedonia by Car		
Wednesday 23 January: SKOPJE			

10h30	St Cyril and Methodius University Skopje Faculty of Natural Sciences **Dr. Jordanka Mitevska/Dean** jordanka@iunona.pmf.ukim.edu.mk **Dr. Ljupcho Melovski** melovski@iunona.pmf.ukim.edu.mk **Dr. Biljana Janeva /Vice Dean** **bjaneva@gmail.com** **Dr. Dragan Vasileski** Faculty of Agri. Sciences **Dr. Sonja Ivanovska** s.ivanovska@zf.ukim.edu.mk	Well prepared and very enthusiastic discussion in English. Dean could only participate at the opening session due to thesis defense which took place (and had been replaced to this day due to air traffic problems of the last days). Representative of Agricultural Faculty had been invited at the last moment. University exists since 1948, has 24 faculties, and research institutes and +/- 40.000 students. Within Faculty of Nat. Sciences 7 Departments of which the Biology Department is most active in environmental issues. Bologna Agreement has been signed but they are still following traditional BaMa system of 4 or 5 +2 years ("Magistrat" takes at least two but often more than 3 years years). General problems of University: - research has low priority - no selection of young staff members (even no permission to select young staff on own budget) - students have to pay for research facilities (€ 200-trimester) - international travel => very difficult to obtain visa, especially for young staff members and students but also senior staff is very disappointed because visa procedures are long and very frustrating - absorption capacity labour market - reorganization education system Experience with TEMPUS projects (TU Eindhoven- GIS) Focus and expertise in the field of Fundamental Ecology New topics - Water/waste water and solid waste are main problems but no expertise is available and no jobs offered in these domains (EU legislation is being introduced but not yet Water Legislation) - There is no env. monitoring - Agricultural University is interested in Landscape Planning - Biodiversity and Nature Conservation Priorities/ideas mentioned: - Curriculum development - Development English Curricula (students from Bulgaria) - two steps approach: first staff training, network establishing, in second phase curriculum	

		development and MSc study - expert meetings - research planning and fund raising	
13h00	Presentations and further discussions with different students	Presentation of Prof. Melovski, expert in Biodiversity and Forest Ecology (see attachment for presentation)	
15h00	Dutch Embassy **Mr. Govert W. Visser** (Geographer VU-UvA) Govert.visser@minbuza.nl	Embassy is very pleased to be involved in this discussion although final project coordination will be in the hands of Belgrade Embassy. HMA is very active in Macedonia as MC is accepted as an EU accession country and eligible for pre-accession support instruments Points discussed/mentioned: 1: environmental issues are very high on the local political agenda => Smog, (solid) waste treatment; 2: EU and NL support for solving problems around environmental hot spots of which 16 are found in MC; 3: Decentralization programmes making municipalities responsible for (solid) waste management; 4: existence of National Environmental Action Plan (DHV) => He will contact Belgrade asking to give the mission all the available documents; 5: Possibility of additional funding => **NFP fellowships** and **MATRA projects**); 6: REC 7: Milieu Contact Eastern Europe 8: New law on Higher Education (in preparation) => corruption 9: Private Max van der Stoel University in Tetovo => Macedonian and Albanian language used, political important but remains the question if level is sufficient. **Important:** - Indicate/elaborate local environmental context; - (solid) waste management - Mentality change needed - Environment legislation, policy development, implementation - Use Alumni network (Nuffic Alumni Association)	
18h00	Dinner with **Dr. Ljupcho Melovski** **Dr. Biljana Janeva /Vice Dean**		

Thursday 24 January: BELGRADE			
06h00	Flight from Skopje to Belgrade		
10h00	<u>Meeting at Ministry of Environmental Protection</u> **Mrs. Jelena Cvetković** Assistant Minister Jelena.cvetkovic@ekoserb.sr.gov.yu **Mr. Miroslav Tadić** Advisor, Department for European Integration and International Cooperation Miroslav.tadic@ekoserb.sr.gov.yu	Nice and open discussions, Ministry very much interested in project and project set-up. M. wishes that more Serbian Universities could be included in project. Points discussed: Serbian Universities involved in Environmental Sciences: 1: Belgrade (Faculty of Biology, Faculty for Technology and Metallurgy and private Fortuna-offers basic studies in Env. Science) 2: Kragujevac 3: Novi-Sad => environmental sciences and environmental engineering 4: Niš Relevant documents - Action Plan on environment and sustainable development including education component => to be finalized in the coming months - regional statement (Macedonia, Serbia, Montenegro and Albania) on environmental education => based on meeting EU ministers of Environment which was organized in Belgrade in 2007 Main problems - Environmental hot spots - municipal (solid) waste management - Hazardous waste - Waste water treatment => NB: water is responsibility of different Ministries hampering solutions and effective management - Legislation and Implementation of international agreements Important topics for action/collaboration: - Environmental Economics (costs/benefits of implementation actions) - Climate change ! - Development joint master courses on env. science and policy (no specialists in waste, water protection)	
14h00	Meeting with Dutch Embassy **Mrs Zumreta Jahić-Borić** cancelled (health problems)		
14h00	<u>University of Belgrade</u> <u>Faculty of Biology</u> **Alexsandar Ćetković** (Entomologist => landscape ecology)	Visit organized at the at the last moment with the help of Ministry (Mr. Miroslav Tadic) who is an Alumni of this Faculty. Very open discussion about objectives of project and ongoing activities at the Faculty. <u>Structure Education:</u> New BaMa structure (3+2) has been introduced	

	acetkov@bf.bio.bg.ac.yu **Jasmina Krpo-Ćetković** (Aquatic Ecology) jkrpo@bf.bio.bg.ac.yu	and the first students have been enrolled this academic year in the BSc 1. There are however still students who are following the old curricula (4+2/3) <u>Specializations:</u> 1: General Biology 2: Molecular Biology 3: …. 4: Ecology (and Environmental protection) NB: enrollment of 200 students/year of which 30 with specialization Ecology) <u>Content of Curriculum:</u> Year 1 and year 2: Biology Year 3: basic ecology, hydro-ecology, human ecology and ecosystem restoration FOCUS is on BIODIVERSITY and NATURE conservation and PROTECTION <u>Strength/weaknesses</u>: Very solid theoretical background but - limited number of scientific senior staff and very few support staff - practical training of students is missing; - ecology and environment have not been very popular subjects for policy makers and students; - environmental economics/policy making is missing - collaboration between different faculties is missing (not supported) although other faculties (Geography, Physics..) also cover/study environmental aspects <u>International contacts</u>: TEMPUS project with Madrid, Nice and …. Faculty would very much like to be involved in this new project.	
Friday 25 January TUZLA			
07h00 11h00	Departure by car to Tuzla University of Tuzla: **Prof. Mirsad Djonlagić**, Vice Rector for International Relations Mirsad.djonlagic@untz.ba **Prof. Nusreta Djonlagić** (Physical Chemistry=> specialist heavy metals) nusreta.djonlagic@untz.ba **Ass. Prof. Dr. Vahida Selibašić** (Specialist Wastewater treatment) Vahida.selibasic@untz.ba	 Introduction by Vice Rector, further discussion with his wife prof. N. Djonlagić and Ass. Prof. V. Selibašić. Bosnia and Herzegovina (BiH) is divided in two entities: BiH composed of 10 cantons and the Republika Srpska. Each entity (including the Cantons) is more or less independent, each having its own government and its own responsibility for (Higher) Education making the situation extreme complex. The University of Tuzla is one of the biggest universities in the country. They try as much as	

		possible to link to Western European Universities and are involved in a TEMPUS project with Porto University. Implementation of Bologna process started 4 years ago and BaMa structure is being implemented. Some universities introduced a 4+1 system, others 3+2. A new law on Higher Education (Framework Law) is being prepared harmonizing the system all over the country but HE is not the first priority of the Government(s). Four Faculties have an Environmental Component: - Faculty of Technology => engineers environmental protection - Faculty of Natural Sciences => Department of Biology => Chemistry, Biodiversity, Microbiology (water) - Faculty of Mechanical Engineering => - Electro technical Faculty => Hydro plants, new energy resources Main problems signaled concerning functioning University: - HE and research have low priority - lack of scientific staff - administrative procedures - very few research projects going on => no doctoral degrees - limited lab facilities (good equipment is not available at all or distributed over different places) and limited access to libraries - limited staff and student mobility - no collaboration between faculties - no inter-regional collaboration (for the first time since many years, a regional conference – on electro chemical problems – is scheduled !). - interdisciplinary research/approach is completely lacking. - difficulty of changing existing curricula Main Environmental problems in region of Tuzla: Tuzla is an old industrial town/region, traditionally producing 25% of GDP of BiH/FR Yugoslavia : - coal mines => soil pollution - cokes factory (Indian Company) - electricity plants => smog - salt mines => chloride industry and soda factory (Turkish) - Cement factory (Austrian)	

		Environmental situation is worse than before. Air and Water pollution, solid waste, etc. Lack of environmental laws and no law enforcement (including lack of independent laboratories for control) **<u>Project priorities</u>**: => Offering the students an integrated approach/knowledge of how to approach environmental problems by offering an international recognized curriculum, breaking down the walls between faculties…. => new degrees => training new generation of teachers for secondary education => creation of Environmental Centers at participating Universities for coordination environmental research and education => conferences/round tables => preparation of participation in FP7 projects => setting up regional university network => start with a round table conference	
Saturday 26 January		Preparation reports	
Sunday 27 January			
08h00 10H30	Departure Arrival at Schiphol		

Annex 3. Report from the mission 2
(author: E. Frederiks, reviewed: D. Kragić-Kok)

BTO Report : Albania and Montenegro

NEWEN

Netherlands and Western Balkans Environmental Network

Erik Frederiks (WU)
Darja Kragić-Kok (LeAF)
Heather Lesley (VU/IVM)
Diederik Rousseau (UNESCO-IHE)

03 – 06 February 2008

Travel scheme:
03.02. Travel to Tirana (Albania);
04.02. Meeting: Agricultural University Tirana
Meeting: Ministry of Environment
Afternoon: Dutch Embassy
05.02 Meeting: Ministry of Agriculture
Meeting: Agricultural University Tirana
Travel by car to Podgorica (Montenegro)
Meeting with representatives University Podgorica.
06.02 Meeting: University Podgorica
Flight back to Amsterdam

Sunday 03: TIRANA			**Action**
10h00 15h00	Departure from Schiphol Arrival at Tirana **Prof. Sulejman Sulce** e-mail:ssulce@yahoo.fr	Welcome by Prof. Sulejman Sulçe from Agricultural University of Tirana (AUT).	
Monday 04: TIRANA			
09h30	Ministry of Environment Pellumb Abeshi Email: pabeshi@moe.gov.al	NB1: Secretary general is former student of AUT NB2: Ass. Prof Shallali has been Secretary	

	Secretary General Ministry of Environment **Ass. Prof. Siat Shallari** e-mail: shallari@yahoo.com **Prof. Sulejman Sulçe**	General at the Ministry of Agriculture for 6 years and recently came back to the University. He did his PhD in France (heavy metals in soils) and is a specialist on soil pollution and risk assessment <u>General points discussed</u>: - Staff Ministry (92 in Tirana, 1400 elsewhere in the domains of environment, water and forestry - hot spot policy and support offered by Dutch Government - support for university project with Dutch partners - twinning project for environmental monitoring with Dutch partner (Oranjewoud) - priorities: environment, forestry, biodiversity, water and soil pollution	
11h00	Meeting with Rector AUT: **Prof. Fatos HARIZAJ** e-mail: rektorubt@hotmail.com and: **Ass. Prof. Siat Shallari** **Prof. Sulejman Sulce** **Prof. Arben Vërçuni** (Pro rector for International Relations) e-mail: arben@abissnet.al	<u>Points discussed</u>: - main objectives of the project - general support for the project in which many Departments are interested Presentations by Dutch Partners of their Institutes	
12h00	**Prof Velesin PEÇULI** (Former Dean) vpeculli@yahoo.com …. Others… Discussion with representatives of interested Departments + their staff: **Prof. Ardian MAÇI** (Dean, Faculty of Agriculture and Environment) e-mail: ardianmaci2003@yahoo.com **Prof Fatbardth SALLAKU** (Head Department Agro-Environment and Ecology) e-mail: sallaku@albmail.com	<u>Points discussed/suggestions for cooperation</u>: **Dean of Faculty of Agriculture and Environment =>** 1: Environmental training Centre for farmers, trainer of the trainers 2: student mobility => practical training of students in the Netherlands 3: Post docs and PhD students on specific topics 4: Financing fieldwork of students Prof .Vath Tabaku, **Dean of Forestry Faculty =>** Presents (ongoing) cooperation with DED (Germany) and SIDA (Finland). In this last project (FORER) students (4) from Serbia, Albania, and Macedonia follow courses in different participating universities. Suggestions:	

		5: climate change and its consequences (forecast of flows, its impact on agricultural practices) 6: organization of scientific congresses **Dean of Faculty of Economics =>** 7: strengthening curriculum for MSc. sustainable development Other suggestions from Department of Environment: 8: strengthening labs 9: Urban waste management **Prof SULEJMAN (in the car) =>** - Fellowships for MSc. and PhD students - keep it simple, focus on case studies (polluted rivers, industrial sites polluted by pesticides) - focus on young generation of scientists - organize scientific seminars - focus on inter-regional cooperation (website..) NB: all infrastructure of AUT has been destroyed at the end of 1997, library burned for months.. Everything had to be rebuilt !	
15h00	Lunch with: **Ass. Prof. Siat Shallari** **Prof. Sulejman Sulçe**		
16h00	Dutch Embassy: **Mrs. Ardi Stoios-Braken** e-mail: ardi.stoiosbraken@minibuza.nl	<u>Points discussed</u>: Focus of Embassy on: - Good Governance - Environment => hot spot remediation (through UNDP) => capacity building of staff Ministry of Environment (Twinning with Oranjewoud) => strengthening environmental NGO's => support of local environmental projects => support of environmental awareness projects (UNICEF=> primary education)	
18h00	Discussion with two students,	General remarks: - level of training is low	

	One of them is interested to start a MSc. in the Netherlands	- lack of jobs - environmental studies are not very popular for Albanian students	
Tuesday 05: TIRANA and PODGORICA			
08h00	Meeting at Ministry of Agriculture **Dr. Ndoc FASLIA**, Deputy Minister ndoc@icc-al.org	Main points discussed: Problems in Agriculture: - limited availability of arable lands (500.000 – 700.000 ha.) - small plots (1 ha =>privatization of cooperatives) - soil erosion (deforestation) and annual floods (50.000 ha flooded annually) destroying arable lands - bad infrastructure in rural areas - land pressure (urbanization) - low level of investments in agriculture (2.5% GNP) - residues in agricultural products (pesticides) International support: - establishment of Food Authority (Belgium input) - set up of accredited labs for food and veterinary services (Italians) - support for fruit and vineyard sector => research infrastructure has been reorganized last year by bringing all research institutes under the umbrella of the Universities leading to confusion about financing structures and responsibilities !!	
10h00	AUT **Prof. Ardian MAÇI** (Dean, Faculty of Agriculture and Environment) **Ass. Prof Fatbardth SALLUKU** (Head Department Agro-Environment and Ecology)	Heather Lesley => visit of laboratory facilities and discussion with MSc. students - poor lab facilities Diederik Rousseau => discussion with waste water specialist of Department Dr. Uran Abazi (e-mail: uranabazi@yahoo.it) **Main points discussed**: 1: University Elections took place last month. Both Dean and Head of Department are newly elected (SALLUKU replaces Prof. Sulejman) 2: Prof Sallaku will be main contact point for project. Copies of correspondence to be send to Prof. Sulejman) 3: Faculty of Agriculture and Environment has 5	

		departments: Agro Environment and Ecology, Crop production, Horticulture, Plant Protection and Animal production. Agricultural economist work in Faculty of Economics 4: Some figures of Department of Agro-Environment and Ecology: ⇨ 700 BSc. students of which 200 part time students ⇨ 50 MSc. students but: Next year the first group of real MSc. students will start under the new Bologna arrangements. Department has 14 senior staff members with expertise in the domain of soil sciences, water, ecology (ecosystems and biodiversity) and plant sciences and 3 junior staff members. All have their PhD. Staff is divided over 5 5: lab facilities and library facilities are lacking or very weak, students have only theoretical knowledge, almost no practical experience due to lack of facilities. THERE WOULD PREFER TO HAVE A SUBSTANTIALLY SUPPORT OF THERE LABS. **Main conclusions**: 1: Focus on MSc. and PhD. students (topics to be decided upon) 2: curriculum development (is ongoing process, staff to be send to NL) 3: training academic staff 4: course project management and proposal writing (no duplication of TEMPUS projects !) 5: strengthening environmental training centre (set up within TEMPUS project but not functioning) 6: regional scientific meetings 7: prefer financial input in labs	
12h00	Departure to Podgorica by car		
17h15	Discussion with **Mrs. Sanja BOJANIĆ** UNDP, Programme Manager, Regional Environmental Program, funded by Dutch Government e-mail: sanja.bojanic@undp.org	<u>Points discussed</u>: Objectives Regional Environmental Program: 1: stimulating regional cooperation 2: Clean-up and remediation of environmental hot spots (9 locations in 6 countries) 3: Capacity development to prevent creation of new hot spots in the future (Cost benefit analysis of environmental pollution never made leading to this crisis). => objectives 1 and 3 are in line with University project, UNDP is ready: - to include University staff in training of stakeholders and	

18h00	Discussion with **Ass. Prof. Svetlana PEROVIĆ** (Microbiology and Ecotoxicology) e-mail:a.perov@cg.yu **Ass. Prof. Sladjana Krivokopić** (Aquatic Biology) Both from Faculty of Science, Department of Biology e-mail: sladjana69@yahoo.com	- to support student research in and around hot spots More detailed information about regional Environmental Program and hot spots available on UNDP site. Points discussed: Focus on Environment only within Department of Biology: 3 MSc programmes: - Ecology and Biodiversity - Environmental protection - Experimental Biotechnology BSc students: 20-30 MSc students: 30/year Several ongoing PhD studies on Aquatic Ecology, Ecotoxicology, Biodiversity. International Cooperation with Germans (Heidelberg) and Norway (Aquatic Ecology).	
Wednesday 06: PODGORICA			
08h30	University of Podgorica: **Vice-Dean for Education Prof. Žarko Kovačević** and **Ass. Prof. Svetlana PEROVIĆ** (Microbiology and Ecotoxicology) **Ass. Prof. Sladjana Krivokapić** (Aquatic Biology) Both from Faculty of Science, Department of Biology + Number of students (4th and 5th year)	NB: Vice Dean recently spent 3 months at TU Twente Faculty of Natural Sciences and Mathematics: 4 Departments => Mathematics, Physics, Computer Sciences and Biology Department of Biology: Educational System: 3+1+1+3 = BSC+Specialist+Master+Doctorat Problems: - limited staff - not enough topics and capacity to supervise thesis work of (40) MSc students Focus Department: Ecotoxicology, Biodiversity and Marine Biology: Preferences for future Cooperation: - students do not seem too interested to go to NL for a long period - PhD and MSc. - strengthening SKADAR Bio-Centre - development short courses and strengthening curricula NB: within the Faculty of Agriculture, soils	

		scientist are involved in studies contaminated soils	
11h00	Visit labs and discussion with students: Heather and Diederik	Good impression of labs	
11h00	Faculty of Metallurgy and Technology **Prof. Kemal Delijić, Dean** e-mail: kemal@cg.ac.yu	Three Departments: Metallurgy, Chemical technology and – since three years – Environmental Protection (EP). EP with focus on water/air/land has been created after a analysis of the labour market. First students will finish in June 2008. Creation of a fourth year is under discussion. Proposed courses for 4th year: clean technologies, modeling and monitoring EP, project design/formulation, recycling of waste, food contamination... Environmental problems: - contamination from coal mines, steel factory, aluminum factory Dean is open for further cooperation but stresses that: - students are not interested in a long stay abroad - regional cooperation could be strengthened (they have already contacts with Zagreb, Tuzla, Belgrade, Sarajevo) - money needed for strengthening labs.	
14h40	Departure from Podgorica airport		

Annex 4. Report from the mission 3
(author: T. Hooijmans, reviewed: D. Kragić-Kok)

BTO Report : Kosovo-Macedonia

NEWEN

Netherlands and Western Balkans Environmental Network

Tineke Hooijmans (UNESCO-IHE)
Darja Kragić-Kok (LEAF/WU)

7 – 8 July 2008

Travel scheme
06.07. Morning flight to Skopje (Macedonia)
06.07. Afternoon taxi to Prishtina (Kosovo)
07.07. Meeting at Ministry of Environment
07.07. Meeting at National Institute of Public Health
07.07. Meeting at Royal Netherlands Embassy Office
07.07. Meeting at University of Prishtina
07.07. Meeting with Kosovo Association of Ecologists
07.07. Afternoon taxi to Skopje
08.07. Afternoon flight to Amsterdam

Sunday 06 July: Skopje/Prishtina			**Action**
09h15	Departure from Schiphol		
13h25	Arrival at Skopje	Flown via Prague	
17h00	Arrival at hotel AFA in Prishtina	Taxi, +/- 80 km	
Monday 07 July: Prishtina			
09h00	University of Prishtina, **Dr. Zeqir Veselaj/Profesor Assistent, Faculty of Education** Zeqir.veselaj@edukimi.uni-	Meeting with contact person of University in Prishtina in the hotel AFA. Zeqir arranged the program for us. He has many contacts at the University and Ministry due to former jobs. Works part-time as Head of the REC Kosovo office.	.

	pr.edu		
10h00	**Ministry of Environment and Spatial Planning:** **Dr. Muhamet Aliu/ Permanent Secretary** Muhamet.aliu@ks-gov.net	Dr. Aliu is interested in the project. MSc students however must be encouraged/forced to come back. Signing contract? Environmental hot spots: -Cement factory. -Trepcha mining site in northern Kosovo, near the town of Mitrovica (UNDP hot spot). Real hot-spot in political/ethnical sense at the moment, too. Heavy metal pollution of air and water. In Prishtina Urban Waste Management is extremely important. Interested in workshop on this issue. He also mentions the Balkan Peace Park Project, which aims to facilitate the creation of a trans-national, cross-border park in the adjoining mountain areas of Kosovo/a, Montenegro and northern Albania as a symbol of peace and cooperation	- He advice us to contact the dean of Natural Sciences
11h30	**National Institute of Public Health** **Prof. Selvete Hoxha-Krasniqi, PhD/Deputy Director** Selvete.krasniqi@niph-kosova.org drselvete@yahoo.com **Dr. Burbuqe Nushi-Lafiti/Head of Sector Water and Sanitation, Dept. of Human Ecology** Burbuqe.nushi@niph-kosovo.org buqen@hotmail.com	Visit arranged last minute because since Institute owns very good lab facilities for possible work under WP3. Deputy Director only present for a few minutes, offered all help and cooperation. Dr. Burbuqe was very enthusiastic and motivated. Explained: Education base for Medicine Faculty. BSc degree in Env. Chemistry, Env. Impact Assessment. Research on drinking water, food, air pollution. Tour around the labs: Very well equipped laboratory with pH, O2 meters, spectrophotometers, HPLC, GC, AES etc. Analysis: lead in blood, heavy metals in food samples, pesticides in water, food, soil, air. Chemists need training to work e.g. on HPLC. Working on Lab. accreditation (PT (proficiency testing), 1st step in accreditation). Cooperation with Skopje Inst. of Public Health (Environmental Health - wastewater, soil etc. and Hygiene)	

12h45   <

20h30	Arrival Imperial Hotel, Skopje	Taxi	
Tuesday 8 July: SKOPJE			
09h15	**Prof. Ljupcho Melovski**	We've met before but used opportunity to meet again to discuss the proposal in-depth. Minutes were made of this meeting and sent to prof. Melovski. Meeting was productive and all WPs were briefly discussed. Prof. Melovski liked that we included suggestions & ideas of University of Skopje (mission 1) in the proposal. It was suggested to include some more env. Hot spots for each country, next to ones identify by UNDP programme. Possible MSc candidates from different faculties had been informed about NEWEN project.	
14h10	Departure from Skopje	Via Prague	
18h40	Arrival Amsterdam		