STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) OF THE TRANSNATIONAL COOPERATION PROGRAMME BALKAN – MEDITERRANEAN 2014-2020

SUBJECT: 2ND DELIVERABLE

"Draft SEA v2"

Prepared for:

MANAGING AUTHORITY OF EUROPEAN TERRITORIAL COOPERATION PROGRAMMES
«EUROPEAN TRANSNATIONAL COOPERATION »

JULY 2014

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1. GENERAL CONSIDERATIONS

The present Strategic Environmental Assessment Study is written according to the specifications of the contract of the work EXPERT – CONSULTANT TO PROVIDE THE CONTEXT OF: I) THE EX-ANTE EVALUATION OF THE TRANSNATIONAL COOPERATION PROGRAMME BALKAN – MEDITERRANEAN 2014-2020 II) THE STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) OF THE TRANSNATIONAL COOPERATION PROGRAMME BALKAN – MEDITERRANEAN 2014-2020”

1.1 INTRODUCTION. THE TRANSNATIONAL COOPERATION PROGRAMME.

The new "BALKAN-MEDITERRANEAN" Programme is a result of a joint decision of the European Commission and the countries of South Eastern Europe to enhance and support cohesion and development of the areas involved. This Programme derives from the splitting of the current South East Europe 2007-13 OP.

The Hellenic Managing Authority of European Territorial Cooperation Programmes was unanimously elected as the Managing Authority of the new Transnational Programme "BALKAN-MEDITERRANEAN" of the Programming Period 2014-2020.

The European Commission, along with the countries of South East Europe, jointly decided to establish this new transnational cooperation Programme based on the need to maintain existing cooperation links, on the fragmentation of the region (markets, transports etc.), on the fragile sea environment, with need to manage river basins and the coastal environment better, and also on the European Territorial Cooperation developmental policies in the region.

The "BALKAN-MEDITERRANEAN" Programme shall promote economic, social, environmental and institutional cohesion and development in the wider area by improving socio-economic competitiveness and institutional capacity in the regions.

Its thematic priorities will be:

1. Entrepreneurship,
2. Environment and
3. Horizontal Objectives

1.2 THE OBJECTIVE OF THE PRESENT STUDY

In view of the 2014-2020 Programming period, a process of consultation has been initiated between the project partners for the submission of the Transnational COOPERATION Programme “Balkan – Mediterranean”, which is expected to be completed in the coming months.

S.K.AEGIS undertakes to support the Contracting Authority at the time of preparation until the final approval of the Transnational COOPERATION Programme “Balkan – Mediterranean” by the European Commission by

providing the services described in this call. New Programmes must be submitted to the Commission by 22 September 2014, in accordance with Article 26 of Regulation 1303/2013.

The overall project aims at the S.K.AEGIS overall scientific, consulting, organizational and secretarial support to the Managing Authority of the European Territorial Cooperation Programmes undertaking the development of:

The Ex- ante Evaluation (Ex-ante Evaluation) and The Strategic Environmental Assessment (SEA) of the Transnational COOPERATION Programme "Balkan – Mediterranean", taking account of the relevant time limits and schedules of the European Commission and the Ministry of Development & Competitiveness for designing the Programming Period 2014-2020 .

The object of the project is broken down into two (2) individual subprojects and S.K.AEGIS undertakes to :

Task 1: Prepare the Ex- ante Evaluation (Ex-ante Evaluation) of the Transnational COOPERATION Programme "Balkan – Mediterranean". The overall objective of the Ex Ante Evaluation is the optimal allocation of the available resources and Programmes to achieve the best possible quality in the Programming of the new Programming period 2014-2020 .

Task 2: Develop a Strategic Environmental Assessment (Strategic Environmental Assessment) of the Transnational COOPERATION Programme "Balkan – Mediterranean" and support the Contracting Authority and the of the Ministry of Environment throughout the process until the completion of the Strategic Environmental Assessment (SEA)

The object of the present report is relevant to Task 2 and relates to the application of Directive 2001/42/EK, which was incorporated in the national legal framework of Greece with [KYA] 107017/28-8-2006, in the BALKAN- MEDITERRANEAN Programme.

The objective of present study is the investigation of the compatibility of the followed strategy from the Programme, the objectives and its content, with the environmental objectives that are placed in the frame of sustainable growth of regions that constitutes his field of application, taking into consideration the particular characteristics and the needs under study of regions but also the international and national objectives and priorities for sustainable growth and protection of environment.

1.3 MANAGING AUTHORITY

Following the 1st task force meeting in Thessaloniki on the 11th of February 2014, the Hellenic Managing Authority of European Territorial Cooperation Programmes was unanimously elected as the Managing Authority of the new Transnational Programme "BALKAN-MEDITERRANEAN" of the Programming Period 2014-2020.

1.4 PROJECT TEAM

The responsibility of the conduction of the present Strategic Environmental Assessment Study has the company:

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Project Manager is Ioannis Souflis, a Doctor of Philosophy (PhD), Electrical Engineering in the field of electric power of the National Technical University of Athens and Graduated electrical engineer of the National Technical University of Athens, Department of electrical engineering.

Leader of the Subproject-2 team is **Ioannis Panagopoulos**, Managing partner of SYBILLA LTD CONSULTING ENGINEERS (Ipsilantou 16, T.K. 151 22, Athens, Greece), Chemical Engineer MSc, Greek Accreditation Consultant #11761, responsible and leader of the SEA of the Western Macedonia COOPERATION Programme 2007-2013 and evaluator of investment plans of the Ministry of Development (Energy COOPERATION Programme) and has assessed various major investment plans in Greece.

Assistant Leader of the Subproject-2 team is **Athanasios Karayannis**, Technical Director of SYBILLA LTD CONSULTING ENGINEERS Chemical Engineer, Greek Accreditation Consultant #11783, A.N.Karayannis has participated in the realization of the SEA of the Western Macedonia COOPERATION Programme 2007-2013».

1.5 MEETINGS FOR BALKAN- MEDITERRANEAN PROGRAMME IMPLEMENTATION

According to the bidding documents the "Balkan-Mediterranean" Programme shall promote economic, social, environmental and institutional cohesion and development in the wider area by improving socio-economic competitiveness and institutional capacity in the regions. Its thematic priorities will be:

1. Entrepreneurship and Innovation,
2. Environment and
3. Technical Assistance

During the implementation of this task several meetings took place with the responsible stakeholders involved.

The **first meeting-kick off meeting** took place in the offices of the BALKAN-MED Authorities in Thessaloniki on 23 May 2014. A **second complementary meeting** followed in Sofia the same day. During the meetings the way of approach of the work was presented and was agreed, i.e. subjects that concerned the general review of this. Indicatively the following were decided:

Parallel working of present team with the Cyprus Consultancy responsible for the preparation of the draft BALKAN-MED programme.

Preparation of Five meetings (each in every participating country) for discussions about programme structure and content. After completion of these meetings draft programme, draft Ex-Ante and draft SEA will be submitted.

A **third meeting** with stakeholders took place in the offices of Ministry of Development and Competitiveness' in Athens on June 11, 2014 where the following issues were discussed 'Programming procedure & Public Consultation for the new Transnational Cooperation Programme "Balkan-Med", Presentation of the "Questionnaire" results ,Territorial Analysis of the "Balkan-Med" geographical area, Challenges & Opportunities (SWOT analysis) of the "Balkan-Med" programme–the transnational cooperation added value, Priority Axes, Thematic Objectives & Investment Priorities (as resulting from Phase A of the Public Consultation)".

A **fourth meeting-workshop (1st Policy Development Workshop)** with stakeholders took place in the offices of Ministry of Development and Competitiveness' in Athens on June 25, 2014 where 'Programming procedure & Public Consultation for the new Transnational Cooperation Programme "Balkan-Med", were discussed by the Expert-Technical Assistance consultant.

Presentation by the Expert of the Territorial Analysis, results for the 1st Phase of Public Consultations, Challenges & Opportunities (SWOT analysis) and transnational cooperation added value took place by Expert-Technical Assistance consultant.

An open discussion with shareholders on the analysis of the existing situation, and on the prioritazation of the Priority axes, took place.

An Input in the development by the shareholders and a roundtable discussion followed.

A **fifth working group meeting** took place in the offices of Managing Authority in Thessaloniki on July 17, 2014 where programme drafting was discussed.

1.6 GEOGRAPHIC AREA OF THE PROGRAMME

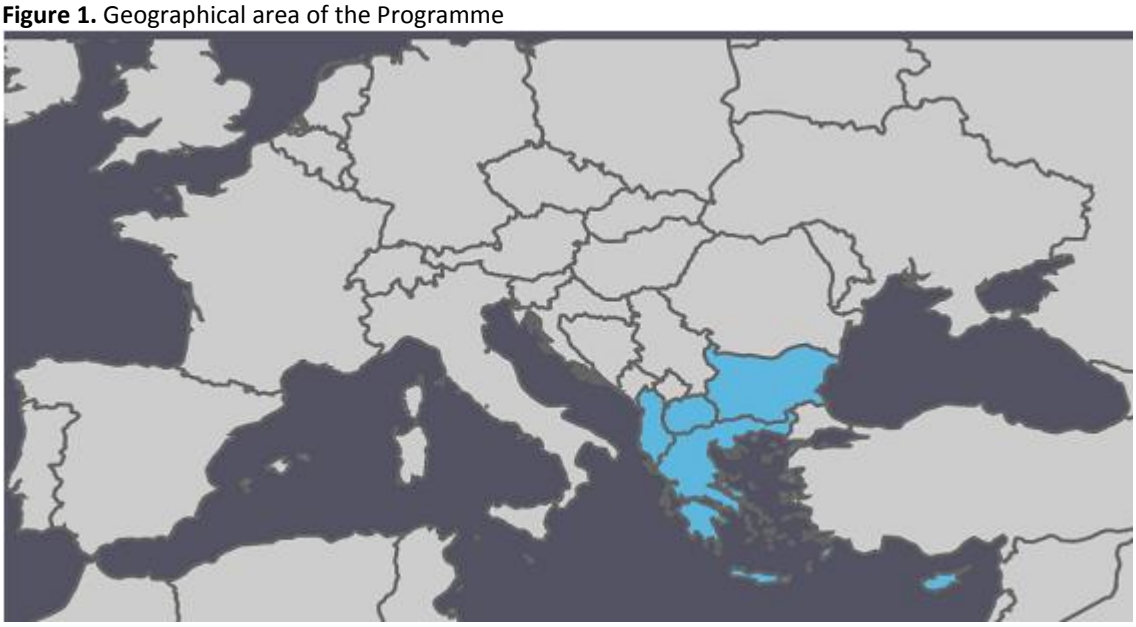
The budget of the Programme adds up to 52.000.0000€.

The participating countries and the eligible area are:

- Bulgaria: the entire country
- Cyprus: the entire country
- Greece: the entire country
- Albania: the entire country (participating with the European funds of the IPA - Instrument for Pre-Accession Assistance)

- Former Yugoslav Republic of Macedonia: the entire country (participating with the European funds of the IPA)

Figure 1. Geographical area of the Programme



1.7 PURPOSE AND LEGAL FRAMEWORK OF THE SEA.

The Strategic Environment Assessment (SEA) has the aim "to provide for a high level of environmental protection and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that (...) an environmental assessment is carried out for certain plans and programmes which are likely to have significant effects on the environment."1 Thus, the SEA will take into consideration in an anticipatory way environmental issues in the framework of the elaboration of the BALKAN-MEDITERRANEAN Programme 2014-2020.

Hence the SEA serves the earliest possible, systematic and transparent process, assessment and description of the likely environmental impact of the programme as well as the involvement of the public and the relevant authorities in consultations. The authorities are those, which, due to their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing the programming (in most of the cases the Member States environmental authorities cover all the foreseen environmental impacts).

The Environmental Report includes information which can be gathered with reasonable efforts and takes into account the current state of knowledge, comments of the public known to the authority, commonly applied audit methods as well as the scope and level of detail of the programme.

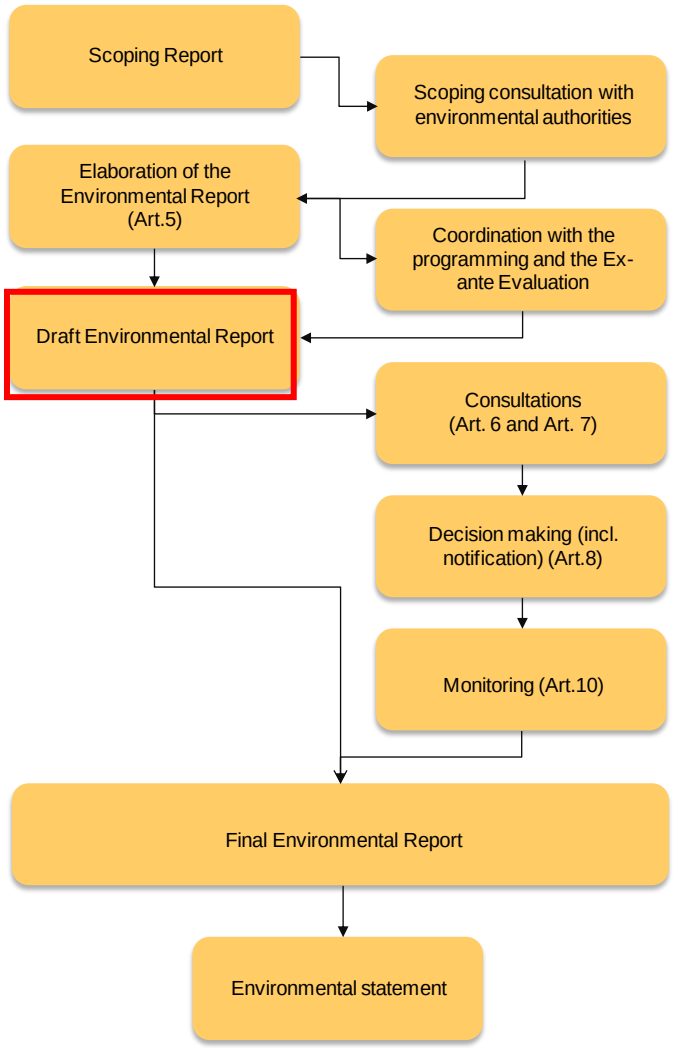
The Environmental Report includes the following sections:

- An easy-to read non-technical summary, which allows for the dissemination of the content of the Environmental Report to the general public.
- A short description of the content and the most important programme objectives as well as of the relation to other relevant plans and programmes.
- A description of the environmental objectives relevant to the programme and the account taken of them.
- The description of the current situation and its presumable development in the case the programme is not implemented.
- A description of the potential relevant impacts on the environment.
- The description of mitigation measures that are planned in order to prevent, to reduce and to compensate for the considerably harmful environmental impacts.
- A short description of the reasons for the choice of the alternatives examined and a description of the way the how the SEA has been implemented.
- Evidence of difficulties which have occurred during the compilation of information,
- The description of the planned monitoring measures.

During the elaboration of the Environmental Report (SEA Report) particular attention has to be paid to the coordination with the Managing Authority or the BALKAN-MEDITERRANEAN 2014-2020 Programme (BMP) Task Force and with the drafting of the programme document Art.1 of the Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effect of certain plans and programmes on the environment.

The steps and outputs of the SEA process are presented in the following figure, including their correspondence to the programming. The environmental issues to be covered by the SEA, in accordance with the SEA Directive, are summarised in the table below.

Figure 2. SEA process according to the SEA Directive



The SEA process is closely interrelated with the Programming and Ex-ante evaluation exercises. The fact that Ex-ante and SEA of the BALKAN-MEDITERRANEAN Programme 2014-2020 are conducted by the same team of experts guarantees the optimal cooperation of those 2 components.

1.8 SEA METHODOLOGY

1.8.1 SEA Methodology in General.

A short presentation of the draft SEA methodology is given below based mainly on EU cohesion strategy. This part presents a set of procedural steps, which are recommended for carrying out SEA for Cohesion Policy Programming documents. These recommended steps are compliant with the requirements of the SEA Directive and correspond to the typical steps taken by planners during elaboration of Cohesion Policy Programming documents. There are nine recommended steps; each will be treated in detail in a sub-section of this chapter. The nine steps are:

1. Environmental Intervention Rational and relevant Determination of the environmental issues, objectives and Priorities. Determination of the environmental issues, objectives and indicators that will be considered within SEA
2. Description of BALKAN- MEDITERRANEAN Programme and Alternatives. .
3. Evaluation of the current situation.
4. Assessment of the Environmental Impacts of the BALKAN- MEDITERRANEAN Programme
5. Assessment of cumulative effects of the entire BALKAN- MEDITERRANEAN Programme
6. BALKAN- MEDITERRANEAN Mitigation Measures.
7. BALKAN- MEDITERRANEAN monitoring system.
8. Regulatory Issues

1.8.2 Step 1: Environmental Intervention Rational and Relevant Determination of the Environmental Issues, Objectives and Priorities.

The main aim of this step is to define the relevant environmental aspects/issues, which should be considered within the SEA, to set relevant environmental objectives/environmental Thematic Targets for each of the aspects that should be considered and where possible, suggest suitable environmental indicators (or specific questions/criteria) that will guide analyses within the SEA process.

At this stage any existing environmental problems which are relevant to the Programming document, and the environmental protection objectives, established at international, EU or Member State level, which are relevant to the Programming document are identifying and in cooperation with relevant environmental authorities, identify key environmental issues that are relevant to the Programming document are identifying. A list of environmental issues and concerns, which should be considered at this stage, will be provided. Environmental issues and concerns that could be considered are biodiversity, fauna and flora, population and human health, soil, water, air and climatic factors, material assets, cultural heritage,

landscape , energy efficiency, use of renewable and non-renewable resources, adaptation to climate change, transport demands, accessibility and mobility, etc.

At this step BALKAN- MEDITERRANEAN objectives and priorities are presented and relevant EU environmental policies, plans and Programmers that might be overlapping and influenced by BALKAN-MEDITERRANEAN implementation are recognized and presented. At this stage EU relevant environmental policies (i.e Water Framework Directive, Solid Waste Framework Directive) and thematic environmental aspects (i.e. Protection of waters, biodiversity, climate changes) are recognized and some basic sustainable development and environmental questions (relevant to the BALKAN- MEDITERRANEAN Programme) are set as a basis for assessing the relevant environmental impacts.

1.8.3 Step 2: Description of BALKAN- MEDITERRANEAN 2014-2020 Programme and Alternatives.

The main aim of this step is to assess the positive and negative effects of the development objectives and priorities contained in the Programming document on the relevant environmental objectives, and to consider alternative options at the level of proposed development objectives and priorities.

At this Step BALKAN- MEDITERRANEAN alternatives are presented and assessed. The recommended alternative is presented and concrete set of objectives-axes-priorities-measures-activities is described (whose implementation will have, according to preliminary analysis mainly positive, environmental impacts).

1.8.4 Step 3: Evaluation of the Existing State of the Environment.

At this step an Analysis of Present state of the Environment at the BALKAN- MEDITERRANEAN region is carried out.

The main aim of this step is to present information on the current state of the environment and natural resources along with their trends, to describe interactions between these trends and the main development sectors and to provide this information for the purpose of the planning process as well as for the SEA.

Present environmental problems, environmental sensitivities of the region and relevant particularities are examined.

This will be the base for

- Developing axes and priorities of BALKAN- MEDITERRANEAN based on existing environmental problems to be improved.
- Comparative analysis for the negative or positive environmental impact of the BALKAN-MEDITERRANEAN Programme implementation.

1.8.5 Step 4 Assessment of the potential Environmental Impacts of the BALKAN-MEDITERRANEAN 2014-2020 Programme.

The main aim of this phase is the assessment of proposed measures and eligible activities (Thematic Objectives, Investment Priorities, Specific Objectives).

The Programme measures and eligible activities are examined in the environmental report in order to assess their likely significant environmental impacts.

The objectives, priorities and measures are assessed based on a specific examination of the main indicative activities foreseen in the BALKAN- MEDITERRANEAN. For each of these activities it is assessed if they are likely to have a potential positive or negative impact on the following environmental issues:

- Biodiversity,
- Flora and fauna,
- Population and human health,
- Soil,
- Water,
- Air and climate factors,
- Material assets,
- Cultural heritage,
- Landscape,
- Land use,
- Energy and use of renewable resources,
- Adaptation to climate change

1.8.6 Step 5. Assessment of the cumulative effects of the entire BALKAN-MEDITERRANEAN 2014-2020 Programme

The main aim of this phase is the assessment of the proposed cumulative effects (and transnational) of all BALKAN- MEDITERRANEAN proposed measures. This step aims to assess the cumulative effects of all proposed measures on the relevant environmental issues, objectives and indicators.

One of the priorities aims at raising the competencies for environmental protection and valorization. For BALKAN- MEDITERRANEAN Programme to be accepted an overall cumulative positive impact on the environment must be expected from projects to be implemented under this priority.

As the total budget for the years of the Programme period (2014-2020) is expected to be around 45.000.000€, the relative range of the activities to be implemented through the Programme is expected to be rather small and no significant environmental effects are expected to influence any of the identified environmental objectives negatively.

1.8.7 Step 6: BALKAN- MEDITERRANEAN 2014-2020 Mitigation Measures.

The main aim of this step is to

- Propose criteria that could help to assess positive or negative effects of proposed activities (or projects) on the relevant environmental issues, objectives and indicators and
- to formulate detailed measures within the activities to prevent, reduce and as fully as possible offset any significant adverse effects on the environment.

This step addresses mitigation measures for facing and improving the environmental impacts. This could include:

- Prerequisites that may be in order for suggested specific measures/activities to be incorporated of BALKAN- MEDITERRANEAN.
- BALKAN- MEDITERRANEAN Managerial procedures.
- Specific criteria for suggested specific measures/activities of BALKAN- MEDITERRANEAN.
- Necessary Action-Studies that must be carried out before the implementation of the Programme.

1.8.8 Step 7: BALKAN- MEDITERRANEAN 2014-2020 Monitoring System.

The main aim of this step is to ensure that information on the significant effects of activities and projects on the relevant environmental objectives and indicators for the Programming document is recorded, and any unforeseen adverse effects are identified in order to be able to undertake appropriate remedial actions.
According to the SEA Directive Article 10, significant environmental effects of implementation of plans and Programmes shall be monitored in order to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action.
At this step a presentation of the monitoring measures in the environmental report, and informing the relevant authorities and the public about the measures concerning monitoring once the Programming document has been adopted will be analyzed.

1.8.9 Step 8: Regulatory Issues of the BALKAN- MEDITERRANEAN 2014-2020.

Every priority axis, measure and activity (thematic objectives, investment priorities, specific objectives) that will be finalized will be addressed in respect to the environmental licensing legislation.

2. NON-TECHNICAL SUMMARY

2.1 OBJECTIVE OF PRESENT STUDY

The new "BALKAN-MEDITERRANEAN" Programme is a result of a joint decision of the European Commission and the countries of South Eastern Europe to enhance and support cohesion and development of the areas involved. This Programme derives from the splitting of the current South East Europe 2007-13 OP.

The Hellenic Managing Authority of European Territorial Cooperation Programmes was unanimously elected as the Managing Authority of the new Transnational Programme "BALKAN-MEDITERRANEAN" of the Programming Period 2014-2020.

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Its thematic priorities will be:

1. Entrepreneurship and Innovation,
2. Environment and
3. Technical Assistance

S.K.AEGIS undertakes to support the Contracting Authority at the time of preparation until the final approval of the Transnational COOPERATION Programme "Balkan – Mediterranean" by the European Commission by providing the services described in this call. New Programmes must be submitted to the Commission by 22 September 2014, in accordance with Article 26 of Regulation 1303/2013.

The overall project aims at the S.K.AEGIS overall scientific, consulting, organizational and secretarial support to the Managing Authority of the European Territorial Cooperation Programmes undertaking the development of:

- The Ex- ante Evaluation (Ex-ante Evaluation) and
- The Strategic Environmental Assessment (Strategic Environmental Assessment)

of the Transnational COOPERATION Programme "Balkan – Mediterranean", taking account of the relevant time limits and schedules of the European Commission and the Ministry of Development & Competitiveness for designing the Programming Period 2014-2020 .

The object of the project is broken down into two (2) individual subprojects and S.K.AEGIS undertakes to:

- **Task 1: Prepare the Ex- ante Evaluation (Ex-ante Evaluation)** of the Transnational COOPERATION Programme "Balkan – Mediterranean". The overall objective of the Ex Ante Evaluation is the optimal allocation of the available resources and Programmes to achieve the best possible quality in the Programming of the new Programming period 2014-2020.
- **Task 2: Develop a Strategic Environmental Assessment (Strategic Environmental Assessment)** of the Transnational COOPERATION Programme "Balkan – Mediterranean" and support the Contracting Authority and the of the Ministry of Environment throughout the process until the completion of the Strategic Environmental Assessment (SEA)

The object of the present report is relevant to Task 2 and relates to the application of Directive 2001/42/EK, which was incorporated in the national legal framework of Greece with [KYA] 107017/28-8-2006, in the BALKAN- MEDITERRANEAN Programme.

The objective of present study is the investigation of the compatibility of the followed strategy from the Programme, the objectives and its content, with the environmental objectives that are placed in the frame of sustainable growth of regions that constitutes his field of application, taking into consideration the particular characteristics and the needs under study of regions but also the international and\ national objectives and priorities for sustainable growth and protection of environment.

2.2 STRATEGIC FRAMEWORK OF THE EU - THE DIRECTIVE 2001/42

According to the «Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and Programmes on the environment (SEA)», SEA environmental report is an integral part of the Programmes and the liability for its conduction is laid to the Managing Authority of the Programme.

The term "Strategic Environmental Assessment" means the standard, systematic and comprehensive procedure by which the environmental effects of the proposed development activities as Plans and Programmes are assessed. The SEA procedure starts as earlier as possible containing public consultation, and the use of the aforementioned activities in order to formulate a final decision for the approval and also the documentation of an environmental report.

The issue of the Directive allows the high quality of environmental protection and the embodying of environmental issues during the preparation and institution of Plans and Programmes, aiming to promote sustainable development assuring that there will be an environmental impact assessment for some Plans and Programmes which might pose significant effects to the environment.

The aim of the Plans or Programmes of the Strategic Environmental Assessment is to investigate the environmental effects of the proposals which are contained in the Programmatic texts of the COOPERATION Programmes, approaching them at a strategic level, and the reasons for choosing one of them is the appointment of the optimal choice among the alternatives highlighting.

Strategic Environmental Assessment is a tool of improvement of the plans and Programmes embodying the environmental dimension into devising the COOPERATION Programmes, focusing to the minimization of the environmental hazards and effects and also to the maximization of the environmental benefits, which occur of the proposed interventions.

In addition the SEA environmental report contributes to the development of effective strategy for the environmental rehabilitation by taking the appropriate retrieving measures.

The Environmental Impact Assessment is a parallel and complementally procedure to the devising of the COOPERATION Programme and the initial evaluation, which will be completed, by devising the final COOPERATION Programme.

The Strategic Environmental Assessment (SEA), as it is determined according to the Directive (article 2b), is consisted of four thematics which are:

- The elaboration of the SEA Environmental Report.
- The consultation with competent authorities and public.
- Assessing the environmental report along with the consultation results at the decision making process.
- The provision of information related to the decision.

Annex I of the Directive designates the information which must be provided in the environmental report:

- An outline of the contents, main objectives of the plan or Programme and relationship with other relevant plans and Programmes
- The relevant aspects of the current state of the environment and the likely evolution there of without implementation of the plan or Programme
- The environmental characteristics of areas likely to be significantly affected

- Any existing environmental problems which are relevant to the plan or Programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC
- The environmental protection objectives, established at international, EU or Member State level, which are relevant to the plan or Programme and the way those objectives and any environmental considerations have been taken into account during its preparation.
- The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors
- the measures envisaged to the prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or Programme
- an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information
- a description of the measures envisaged concerning monitoring in accordance with Article 10 of the Directive
- a non-technical summary of the information provided under the above headings.

As far as it concerns the consultations, which are described in the Directive, are the following:

- Consultation with competent authorities and public, shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or Programme and the accompanying environmental report before the adoption of the plan or Programme or its submission to the legislative procedure (article 6 paragraphs 1 and 2).
- Trans boundary consultations with member states, which perceive that the implementation of the proposed plan or Programme might pose significant effects to the environment of their territory (article 7).
- Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 21 July 2004

2.3 BALKAN- MEDITERRANEAN 2014-2020 OVERALL OBJECTIVE OF THE PROGRAMME.

The programme objective is to build on shared territorial assets and promote integrated territorial development and cooperation for a more competitive and sustainable Balkan – Mediterranean area.

To reach this objective the programme builds in local entrepreneurship potential and in natural assets, both supported by a training and capacity building scheme. It is a holistic approach clearly targeting the area's smart and sustainable growth potential, horizontally supported by a comprehensive training scheme to improve labour force skills and motivate inclusive growth. Therefore the programming framework totally embeds the EU 2020 strategy for smart, sustainable and inclusive growth.

The programme is expected to have a significant impact on the area, enhancing regional cooperation through continued EU support as well as promoting further EU integration. Transnational cooperation may contribute to improve regional and territorial practices. Hence, the Balkan – Mediterranean 2014 – 2020 transnational cooperation programme (TNCP) will grant a specific attention to the coherence, complementarity and transfer of experiences and practices with regional and national programmes that can feed transnational actions and benefit of their results. For 2014-2020, the transfer of experience between actors, territories and programme is considered as a major goal for the Balkan-Mediterranean Programme.

This will be done taking into account the potential and challenges of specific sectors related to the blue and green growth. Moreover, the Programme shares large parts of its cooperation area (Greece & Albania) with the EU strategy for the Adriatic and Ionian Region (EUSAIR) and with the Danube macro-regional strategy (Bulgaria). Therefore, the Programme may contribute to the implementation of the Action Plan of the above-mentioned Strategies; synergies and coordination activities between Programmes are envisaged on the different priorities axes and investment priorities.

Taking into account the aim to mobilise the growth potential of the participating countries and the region as a whole, the following added value fields have been identified and confirmed through the public consultation process:

- Geography: as the programme addresses actors across from all over the participating countries' areas, transnational cooperation partnerships can be built from all over the five (5) participating countries and not just from a limited number of border regions.

- Diversity: the programme covers internal and external EU borders, both terrestrial and maritime. Consequently, the programme can unfold both strands of the EU 2020 strategy, terrestrial and maritime pillars, triggering green and blue growth accordingly.
- Growth drivers' range: as a result of its extended geography and diversity the programme addresses a wider pool of growth drivers sharing common challenges that can accordingly be addressed by a wider pool of methods and practices.
- Critical mass: transnational territorial cooperation is of particular value as transnational cooperation partnerships can secure economies of scale and critical mass, enhancing mobilisation capacity and innovation potential, both key competitiveness issues to overcome markets' fragmentation.
- Policy learning and governance: learning through cooperation is an effective mechanism for spreading know-how and enhance capacities and skills. Focused transnational cooperation can improve governance delivery in both public and corporate sectors.
- Building structures for further cooperation: structures (administrative, institutional, social and private) set up in cooperation programmes facilitate continuity and sustainability of lessons learned while at the same time they are setting the basis for further and more focused cooperation schemes.

Taking into account the programme's territorial dynamics as well as limited financial resources, a strong thematic focus has been promoted taking also advantage of the possibility to combine investment priorities from different thematic objectives in order to increase impact, effectiveness and coherence within each priority challenge tackled by the respective priority axis. Thus the programme develops a leverage effect on regional development by investing in the holistic capacity to boost entrepreneurship, to protect the environment and to promote the efficient use of resources.

2.4 BALKAN- MEDITERRANEAN 2014-2020 PROGRAMME PRIORITIES.

Two priority axes have been defined in response to the identified transnational key challenges and opportunities above. A third one concerns the Technical Assistance. They are briefly introduced in the following section..

Priority Axis 1: 'Entrepreneurship and Innovation'

Priority 1 is dedicated to actions that will build the capacity and improve the competitiveness of existing SMEs, while promoting and supporting the emergence of new SMEs in key economic sectors such as tourism as well as with a spatial focus (rural and remote areas). The Priority will encourage SMEs cooperation within

and between countries through networks, clusters and clusters policies, in particular that are outward looking and therefore promote their internationalisation.

A special focus of this Priority will be the enhancement of the capacity of SMEs through the implementation of actions related to education and training. Such actions will enable SMEs to acquire the necessary skills/tools to boost their competitiveness, grow towards other markets and introduce innovation in all phases of their business cycle. By linking education and businesses, this Priority will also aim to transpose innovation into business practices and processes. Synergies will also be sought with opportunities provided by Cohesion Policy, in particular via regional innovation strategies involving SMEs and other territorial cooperation programmes.

Priority Axis 2: 'Environment'

Priority Axis 2 aims at strengthening integrated joint approaches to preserve and manage the rich natural and cultural heritage in the region as a prerequisite and a fundamental basis for sustainable development and inclusive growth. Among others, the priority will also support the development of the region as a tourist destination, fostering the "Balkan – Mediterranean" identity. Balance between tourism, environmental protection and economic growth will be sought. The programme will bring together different stakeholders dealing with the protection of natural and cultural heritage. The development and implementation of common strategies and approaches will foster for the protection and sustainable use of natural and cultural heritage. Development of common brands is also creating a favourable environment for sustainable tourism practices, which are based on the valorisation of natural and cultural heritage. The priority will encourage networking and partnerships among central, regional and local administrations, as well as non-governmental organisations, business support centres, tourist agencies, other actors. The programme area has a potential to strengthen common approaches to foster green and blue growth opportunities, promote classified sites and areas of community importance (Natura 2000) develop theme paths and joint products, all guided by a shared policy framework.

In addition, implementation of innovative technologies to protect the environment and guarantee resource efficiency will also be in the focus of the priority.

The capacity of local actors to apply innovative approaches in developing the rich environmental potential of the region will be enhanced through joint education and training activities, sharing and implementing of best practices in the field.

Horizontal dimensions

Apart from thematic orientation, the Balkan – Mediterranean 2014 – 2020 transnational cooperation programme addresses horizontal thematic aspects highlighted in the EU regulations: sustainable development, equal opportunities and non-discrimination, equality between men and women.

Besides the thematic concentration and the choice of Thematic Objectives, specific issues will be addressed in a cross-cutting way in the different investment priorities of the programme contributing to the overall objectives of the Programme:

- **Social cohesion**

In different fields of intervention, a positive attention will be paid to projects involving partners or taking measures that have positive effects on social cohesion. This is especially the case when involving social enterprises or the implementing actions improving the conditions of target groups confronted with economic and social integration difficulties. Additionally, there should be a general effort on reducing unemployment and mitigating the risk of poverty and social exclusion in the Balkan-Mediterranean region and on promoting inclusive growth.

- **Connectivity & Accessibility**

The promotion of connectivity on the Programme area (including ICT products, services and applications) constitutes a relevant support for socioeconomic development, governance, networking, etc. In addition, accessibility can promote activities to improve access to and quality of transport and telecommunications services where these have a clear transnational dimension. Connectivity and accessibility should be considered as a goal which, in a transversal way, might help to reach the objectives of several investment priorities.

- **Territorial cohesion**

In each targeted territory (urban, coastal, islands and remote areas) projects will have to mobilise relevant stakeholders of sectors and institutions from the project intervention field. Approaches must be 'integrated', so that the result would not be isolated proposals working on limited aspects of tourism, energy or transports for example, but a coordination effort insisting on the contribution of these domains to the sustainable development of territories (taking into account available means, economic perspectives, on-going public policies, conflict of use, environmental constraints, etc.). Partners will have to explore how to make relevant actors from environment protection, tourism, transport, etc. work together. With this approach, transnational cooperation will contribute to develop strategic planning aspects.

The transnational dimension of the operations is a decisive aspect of the Balkan-Mediterranean 2014-2020 transnational cooperation programme. It will be evaluated during the selection process of the applications and during the selected projects' implementation. Special attention will be given to the scope of the applications, to their objectives and to the partnerships' synthesis in order to make sure that they are not merely an aggregate of independent actions but represent genuine transnational cooperation partnerships of a real transnational added-value. The operations must allow carrying out complementary activities associating partners from different countries. They must bring solutions to identified common challenges which could not be solved without a transnational approach.

Priority Axis 3: ' Technical Assistance'

Priority Axis 3 is dedicated to BALKAN-MEDITERRANEAN programme related managerial actions. "Technical Assistance" is a tool for the enhancement of the programme management. Of course proper management and programme implementation enhances the efficiency of the relevant actions. In that sense Priority Axis 3 "Technical Assistance" can be seen as an horizontal action too.

2.5 EXISTING STATE OF THE ENVIRONMENT. NATURAL ENVIRONMENT

2.5.1 Geomorphology - Landscape

The Balkan Mediterranean Programme area is characterised by a diversified and sensitive landscape, consisting of a very long coastline, mountainous regions, rivers and lakes, fertile plains, forests and many islands. For this reason, the area does face difficulties in communication and access between countries, regions (east west connections, islands) and with surrounding areas (with northern Europe notably).

Bulgaria. Located in the heart of the Balkans, Bulgaria offers a highly diverse landscape: the north is dominated by the vast lowlands of the Danube and the south by the highlands and elevated plains. In the east, the Black Sea coast attracts tourists all year round.

Greece. Greece forms the southern extremity of the Balkan Peninsula in south-east Europe. Its territory has an area of 131 957 km2 and includes more than 2 000 islands in the Aegean and Ionian seas of which only around 165 islands are inhabited. Greece has a population of 11.2 million. Greece has a large variety of landscape elements.

Cyprus . Cyprus, the third largest island in the Mediterranean is situated just 65 km south of Turkey and 105 km west of Syria. It has an area of 9.250 km2 with its greatest length approximately 225 km and its greatest width approximately 96 km. In Cyprus, as in the rest of Europe, agriculture dominates much of the landscape,

extending over half of the island's territory and comprises mainly rain fed but also irrigated, crops. The main characteristic of Cyprus landscape is the island status. Cyprus amounted over 100 smalls islands and rocky islets, which have rocky, sandy, steeply inclined beaches. It is endowed with a great variety of landscapes ranging from mountainous regions and plains to an extensive coastal line, which is extremely irregular in outline. The barren meadow percents a large diversity similar to geographical characteristics like height, extent, slope.

Albania Albania lies in the Southwestern part of the Balkan Peninsula, covering an area of 28,748 square kilometers. It occupies a strategic geographical location in South-Eastern Europe along the Strait of Otranto, which links the Adriatic Sea with the Ionian Sea and separates Albania from Italy. Albania shares a border with Greece to the south/southeast (282 km), former Yugoslav Republic of Macedonia to the east (151 km), Kosovo to the northeast (112 km), and Montenegro to the northwest (172 km)1. The capital city of Albania is Tirana. Other major cities include Durrës, Vlorë, Fier, and Shkodër. Albania is a country of about 3.6 million inhabitants. Much of Albania's surface is mountainous – the average height above sea level is 708 m and its highest peak, Mount of Korabi, is 2,753 m. The country is rich in water resources with the main rivers being extensively managed to generate hydro-electricity. The country has nearly 450 km of seacoast along the Adriatic and Ioanian Seas. Over a third of the territory of Albania is forested and the country is very rich in flora. Other natural resources include petroleum, natural gas, coal, bauxite, chromites, copper, iron ore, nickel, salt, timber, and hydropower.

Former Yugoslav Republic of Macedonia. The Former Yugoslav Republic of Macedonia is a landlocked country in the central part of the Balkan Peninsula. The population is approximately two million people, with a total area of about 25,700 km2. Its territory is mainly mountainous marked by a central valley formed by the Vardar's river and framed by the Sara and Osogovo rivers. Three large lakes (Ohrid. Prespa and Dojran) lie on its southern borders, bisected by frontiers with Albania and Greece.

2.5.2 Solid Waste

Bulgaria. A very large proportion of the municipal waste in Bulgaria is landfilled (with a few exceptions, these landfills do not comply with the new requirements). In relative terms, mining and ore-processing industries generate the most industrial waste. As a new Member State, Bulgaria is facing the challenges of practical implementation of EU legislation in the waste sector.

Greece. There is a slow but gradual increase in waste production throughout the years 2001 and 2010. Recycling increased in Greece in the decade. The future EU targets, already transposed by Greece refer to the Landfill and the Waste Framework Directives, when examining MSW. A great number of plants are in the planning or construction stage, mainly based on MBT technology, which has the potential to contribute to all

Greece's targets by simultaneously diverting the biodegradable fraction from landfills and increasing the material recovery.

Cyprus. The generation of MSW increased in Cyprus with 25 % between 2001 and 2010. In general, recycling in Cyprus is at a relatively low/medium level, but there is a very slow steady increase. The hazardous waste in Cyprus is generally disposed of together with other, less harmful waste. In general, although Cyprus has transposed all EU legislation, it faces difficulties in its implementation, mainly due to lack of infrastructure.

Albania . Waste management in Albania is at a low level. The estimation of MSW generation in Albania is based on the number of trucks delivering waste to disposal sites. As with general industrial waste, there is no information available on current hazardous waste management in Albania. Expert studies estimate that hazardous waste may constitute 3-5 per cent of total industrial waste. Overall, a radical change is planned within the Albanian waste management practices. There will be a shift away from the current absolute reliance on landfilling to a long-term target of reducing landfilling to 30%. with 70% recovery by recycling, composting and conversion to energy.

Former Yugoslav Republic of Macedonia. Waste management is one of the most serious environmental issues in the country due to the lack of suitable infrastructure. Vast majority of municipal waste is landfilled ((with a few exceptions, these landfills do not comply with the new requirements). Recycling and composting of MSW covers a minor 0.26 %. One of the main goals in waste management in former Yugoslav Republic of Macedonia is the recovery of valuable ingredients of the waste to be organized by the producers, importers, distributors, and retail traders, as well as specialized service companies.

2.5.3 Water Resources - Wastewater

Bulgaria. Most of surface waters are in relatively good condition. The rivers areas are contaminated in areas around big settlements. Groundwater quality is very much determined by the hydro-geological characteristics of each individual area. A number of catchments are shared with other Member States (Romania and Greece) and with third countries. Diffuse sources are a significant pressure for 42% of surface water bodies, and point sources for 35%. Water abstraction is a significant pressure for one fifth of surface water bodies. Almost a fourth of all surface water bodies arc not subject to significant pressures. Significant differences arc seen across the RBDs: Diffuse source pollution shows the highest percentage in the Black Sea RBD while water abstractions affect a high percentage of surface water bodies in the West Aegean RBD. In the Danube RBD all the pressure categories are significant for a relatively high proportion of water bodies. Almost 40% of all surface water bodies in Bulgaria have been assessed as being at good ecological status and nearly 5% arc at high status. One fourth of the surface water bodies arc in poor or bad status. There arc differences across RBDs, the highest proportion of poor and bad status WBs can be found in the Eastern

Aegean RBD. Bulgaria has reported that more than two thirds of its groundwater bodies have good chemical status while 30% of them arc in poor status.

In relation to Water use according to EEA (2010) data the total amount of water abstracted during last decade was around 6-7 billion cubic metres a year. Around 7-10% abstracted from groundwater.

Greece. In Greece, the driving forces represent major social, demographic and economic developments, the corresponding changes in lifestyle, and overall consumption and production patterns. Environmental pressures on surface freshwater ecosystems are almost entirely anthropogenic. They are related, directly or indirectly, to human activity in the proximity or the greater catchment area of the water body. The major sources of pollution of surface and groundwater are Urban wastewater discharge, Industrial wastewater discharge, Pollution from agricultural activities (use of fertilizers), Use of pesticides and insecticides, Excessive fishing, Pollution from aquaculture, Nuisance from mining activities.

The state of freshwater may be described by adequate structural (e.g. river morphology), physical (e.g., temperature), chemical (e.g., phosphorus and nitrogen concentrations) and biological (e.g. phytoplankton or fish abundance) indicators. Following any possible changes in the state, society may suffer positive or negative consequences.

The state of Greece's freshwater bodies is generally good. Water quality is commonly fit for various uses (irrigation, industry, production of drinking water). Greece has an especially good record in terms of water quality at the more than 2000 coastal sites designated under the EU Bathing Water Directive: virtually all sites comply with mandatory values and 96-98% also comply with the more stringent guide values. However, Greece still faces serious water challenges, in particular in terms of its agricultural water use, which represents vast majority of the overall abstraction.

freshwater bodies is generally good. Water quality is commonly fit for various uses (irrigation, industry, production of drinking water). However, Greece still faces serious water challenges, in particular in terms of its agricultural water use, which represents about 85% of overall abstraction.

Cyprus. In general surface water bodies in Cyprus have been assessed as being at good or better ecological status but the same is not valid for groundwaters.

Three quarters of the surface water bodies arc reported to be in good chemical status in Cyprus and only less than 5% failing good status. For 56 surface water bodies, the chemical status is unknown for similar reasons to that mentioned above for ecological status..

More than half of the groundwater bodies have good chemical status in Cyprus while 8 GWBs are in poor status. Only one groundwater body have not been assessed.. Only every fifth GWB is assessed at good quantitative status in Cyprus while three quarters of them are reported to be in poor quantitative status. The status of only one GWB is unknown.

39% SWBs were assessed as being of good status in 2009. According to the information reported to WISE, the number of good status is expected to increase to 58% in 2015.

Water scarcity is also a very serious problem for Cyprus.

Albania. Albanian water recourse water quality is often a problem due to pollution through discharge of untreated wastewater from urban settlements, as well as from industries with obsolete technology and by the extensive use of chemical fertilisers and pesticides in agriculture. The uncontrolled dumping of urban waste on the banks of rivers exacerbates the problem of the quality of surface water.

This high pollution load in surface water is leading to a deterioration of groundwater quality and especially concerns low-lying areas, where most of the population lives and most industrial and agricultural activities take place.

Concerning the quality of marine waters at coastal resorts, monitoring results for 2009 in the coastal area of Dunes indicate not compliant to standards water quality, on the basis of the WHO classification for bathing seawater.

Former Yugoslav Republic of Macedonia. The country has a very rich network of rivers, the status of some of which is poor. Urban wastewater is the main pollution source, discharged directly into the rivers and streams without treatment.

The main water resources that provide clean fresh water accumulation are three natural lakes-Ohrid, Prespa and Dojran. In addition there are also 35 rivers and 53 overall artificial and natural lakes. Although Former Yugoslavian Republic of Macedonia is rich with drinking water and there is no problem with the amount of water in the country, there are problems with the infrastructure and the poor management of the water resources that prevent the water to reach in some villages.

Around 50-60% of households are connected to the public sewage system-while around 20% use septic tanks and 10% discharge their wastewater directly. Connection to the public sewage system is relatively low, especially considering the higher connection to the water supply system (close to 90%).

The country's rivers are exposed to contamination from agriculture and industrial activities, especially the metallurgical, chemical and mining industries. Water quality is also seriously affected by the lack of waste water treatment, as most towns do not possess treatment plants, and effluent from industrial and mining facilities, livestock farms and landfills has been largely uncontrolled.

Although former Yugoslav Republic of Macedonia is rich with drinking water and there is no problem with the amount of water in the country. Former Yugoslav Republic of Macedonia shares rivers and lakes with neighbouring countries and due to this a high priority is given on the cooperation and the use of Transboundary Rivers and lakes.

2.5.4 Marine Pollution

Bulgaria. Marine pollution in Bulgaria is a low level. Bulgaria reports a good environmental status for non-indigenous species. In Black Sea in general there is a decrease in phenomenon of eutrophication. However, hot spots of contaminants (metals, PCBs, agrochemicals) have been identified.

Greece. The marine pollution is generally at a low level. Greece has a rich marine biodiversity, however there is a relatively high number of non-indigenous species. The agriculture sector is mainly responsible for the phenomenon of coastal waters eutrophication. The atmospheric depositions are significant contributors to inputs of heavy metals.

Cyprus. The marine pollution is at a very low in Cyprus. Cyprus has a rich marine biodiversity, however there is a relatively high number of non-indigenous species. Cyprus does not have a significant problem in eutrophication or from contaminants.

Albania. In Albania there is a eutrophication problem in coastal regions. On top of that, overexploitation of marine living resources, as well as industrial activity, shipping, and transport, further contribute to mainly coastal waters. The lack of proper Wastewater treatment in Urban Coastal areas, along with poor planning has also deteriorated the aesthetics of the coastlines.

2.5.5 Population-Human Health-Natural Hazards and risks (emphasis on water issues).

Bulgaria, Greece, Albania and Former Yugoslav Republic of Macedonia can be characterized as high risk countries in the aspect of natural hazards, while Cyprus can be characterized as a middle risk country in the aspect of natural hazards.

Average Disaster per Year for these countries is depicted at the following table.

Table ES 1. BALKAN-MEDITERRANEAN 2014-2020 Countries. Average Disaster per Year.

	Bulgaria	**Greece**	**Cyprus**	**Albania**	**Former Yugoslav Republic of Macedonia**
Drought	0.06	0.03	0.06	0.03	0.03
Earthquake*	0.10	0.65	0.03	0.13	
Epidemic			0.03	0.06	0.03
Extreme temp	0.23	0.19	0.10	0.10	0.10
Flood	0.42	0.58		0.29	0.23
Insect infestation					
Mass mov. Dry				0.03	
Mass mov. Wet					
Volcano					
Storm	0.16	0.19	0.10	0.06	0.03
Wildfire	0.13	0.42	0.03	0.03	0.06

2.5.6 Fauna-flora-Biodiversity

Bulgaria. Bulgaria is one of the countries with the greatest biodiversity in Europe. The diversity of Europe flora and fauna has significant economic dimension as a biological resources of importance to the Bulgarian people and the national economy. The flora of Bulgaria is characterised by the considerable number of species it includes. Forests in Bulgaria constitute 30% of the territory of the country and are the safest refuges for rare plant and animal species. The forests are concentrated mainly in the mountain regions, where most of the wildlife is to be found as well.

Greece. Species and ecosystems diversity is high due to the great range of climatic and geomorphologic conditions. Greece entirely lies in the Mediterranean bio-geographical region, with ecosystems ranging from semi-desert and maquis, to cold climate mountain forests of birch, scots pine, and spruce. Wetlands (rivers, estuaries, deltas, lagoons, shallow lakes, shallow marine formations, and marshes) cover a relatively wide area (210 000 hectares), despite their large degradation over the past decades. Forests cover nearly 30% of Greek territory (although tree cover has decreased as a result of the 2007 fires); 29% of the land is cultivated, and 36% is grassland (much of it upland and sparse). Greek flora and fauna are among the richest in Europe: more than 5 500 plant species have been recorded, with a large number of endemic species, due to the isolation of mountains and islands. The fauna includes a large number of indigenous species.

Cyprus . Cyprus's biodiversity is a result of its long isolation history, its geology and geomorphology and the Mediterranean climate, along with the effect of human intervention. The coastal zone of Cyprus is characterized by rich wildlife of high ecological value. Approximately 18 percent of Cyprus' area is covered by forest and 47 percent is considered arable land, 21 percent of which is irrigated. The dominant types of woody plants are the extensive pine forests, the sclerophyllous evergreen, high and low maquis, and garigue ecosystems. The great diversity of plant and animal species derives from a sharp altitudinal gradient of climatic conditions.

Albania. Albania is distinguished by its rich biological and landscape diversity in two main bio-geographical regions: the Mediterranean and the Alpine regions. This can be attributed to the country's geographic position as well as its geological, hydrological, climatic, soil and relief characteristics. The high diversity of ecosystems and habitats – marine and coastal ecosystems, wetlands, river deltas, sand dunes, lakes, rivers, Mediterranean shrubs, broadleaf, conifers and mixed forests, alpine and sub-alpine pastures and meadows, and high mountain ecosystems – provides rich habitats for a variety of plants and animals. The high Albanian forests maintain communities of large mammals such as wolf, bear, lynx, and wild goat, and also characteristic bird communities.

Former Yugoslav Republic of Macedonia. Former Yugoslav Republic of Macedonia has a remarkable wildlife diversity, which reflects the varied relief, geology, natural history and human influence. The Red List of endangered plant species within Former Yugoslav Republic of Macedonia has yet to be prepared, but it is considered that about 10% of the higher plants species are threatened. The fauna also reveals a high degree of taxonomic diversity, which includes more than 9.000 species. The abundance of ecosystems, habitats, communities and species places the former Yugoslav Republic of Macedonia at the very top of the list of countries with impressive biodiversity in Europe. Species diversity is represented by more than 16000 taxa of wild flora, fungi and fauna.

2.5.7 Air Pollution

Bulgaria. Air quality remains low in many cities and hot spots, continuing to present a significant threat to human health. Overall, national emissions are still high compared with those of either western European countries or other central and eastern European countries. Emissions from large industrial facilities remain major problems, as do those from residential/commercial sector use of low-quality solid fuels. Motor vehicle emissions are a concern in cities, especially in Sofia, and are likely to increase, unless counteracting measures are taken.

Greece. Exceedances of the mean hourly concentrations of nitrogen oxides and (8 hours limit) ozone target have been recorded mainly in major cities Athens and Thessaloniki, while sulfur dioxide does not seem to be a problem with the exception of Western Macedonia and Peloponese-Megalopolis. Air pollution in Greece is a significant problem mainly in Athens and Thessaloniki. The main air pollution sources are transport, industrial and urban sources.

Cyprus. Most of the air pollutants do not exceed the limits, with the exception of Ozone and PM10. The Ozone exceedances of the 8-hour target value, observed mainly in non-urban areas, while PM10 exceed both the annual and the daily limit value all over Cyprus. Regarding the emissions of pollutants in Cyprus, the main contributors are road transport and industrial sources.

Albania. Exceedances of the mean hourly concentrations of nitrogen oxides have been recorded mainly in Tirana, while sulfur dioxide does not seem to be a problem. Exceedances of limits by Particulates concentrations seems to be a problem all around Albania. Activities that cause the most pollution are transport, industry and urban development.

Former Yugoslav Republic of Macedonia. Exceedances of the mean annual concentrations of nitrogen oxides and mean annual and winter concentrations of sulphur dioxide have been recorded mainly in Skopje while exceedances of limits by Particulates concentrations seems to be a problem all around Former Yugoslav Republic of Macedonia cities. Air pollution in former Yugoslav Republic of Macedonia seems to be a major

problem. The three sectors largely responsible for air emissions are energy production, especially electricity production based on lignite burning, road traffic and industry.

2.5.8 Climate Change – Energy Efficiency

Bulgaria. Mostly climate models simulate air temperature increases in Bulgaria of between 2˚C and 5˚C and a doubling of atmospheric carbon dioxide concentrations. Latest GHG inventory shows that overall GHG emissions in CO2 equivalent came to 75,793 gigagrammes (Gg) without taking land use, changes in land use and forestry (LULUCF) sector sinks into account. Net emissions, taking account LULUCF sinks, were 68,991 Gg. CO2 emissions, expressed as CO2 equivalent, had the greatest share of overall GHG emissions at 77.7 %, followed by methane (CH4) emissions at 15.3% and nitrous oxide (N2O) emissions at 6.7 %; polycyclic aromatic hydrocarbons (F) gases had a 0.3 % share. The energy sector occupies more than 74 % of aggregate GHG emissions while CO2 contributes the greatest share of aggregate GHG emissions in the sector, at up to 91 %. Implementations of Europe 2020 Climate Change and Energy Targets for the Country are as follows:

Table ES 2. Bulgaria. Implementations of Europe 2020 Climate Change and Energy Targets

Europe 2020 headline targets	Current situation in Bulgaria	National 2020 target
20% greenhouse gas (GHG) emissions reduction compared to 1990	-12% (2020 projected emissions compared to 2005) +11% (2010 emissions Compared to 2005)	+20% (national binding target for non-ETS sectors compared to 2005)
20% of energy from renewables	13.8 % (2010)	16 %
20% increase in energy efficiency	17.4 Mtoe (2010)	- 3.20 Mtoe = 15.8 Mtoe

In this framework, the priorities of funding in order for the country to tackle the main Climate Change and Energy Efficiency development challenges and to implement the Europe 2020 strategy are towards Environment-friendly and resource-efficient economy (Promote a low-carbon economy, energy efficiency and renewable energy sources, Invest substantially in the water and waste processing sectors, Protect the environment, improving management of natural resources, investing in adaptation to climate change, addressing specific natural and man-made risks)

Greece. According to the results from worldwide climate models, average temperatures in Greece are projected to increase from 3.1°C to 5.1°C by 2100, with an average value of 4.3°C. According to EEA2012 report base year GHG emissions in Greece were estimated at 107.71 Mt CO2 while 2007, greenhouse gas

emissions were 131.85 Mt CO2. Major sectors in GHG emissions are Energy excluding Transport sharing 64% of total GHG emissions. Transport 18% and Industrial processes 7%.

Implementations of Europe 2020 Climate Change and Energy Targets for the Country are as follows:

Table ES 3. Greece. Implementations of Europe 2020 Climate Change and Energy Targets

Europe 2020 headline targets	Current situation In Greece	National 2020 target
Energy efficiency	N/a (the Commission is not yet able to provide this overview)	2,7 Mtoe
Renewable Energy	Starting from 5,8% in 2005, the share of renewable energy in gross final energy consumption has been increased to 8.2% (in 2011)	18% of gross final energy consumption from renewable sources
20% greenhouse gas (GHG) emissions reduction compared	+3% (2020 projected emissions compared to 2005) -8% (2010 emissions compared to 2005)	-4 % (National binding target for non-ETS sectors compared to 2005)

In this framework, the priorities of funding in order for the country to tackle the main Climate Change and Energy Efficiency development challenges and to implement the Europe 2020 strategy are towards an Environment friendly and resource-efficient economy for growth and jobs (Improve management of natural resources and environmental protection, Climate change adaptation and mitigation, Shift to an energy efficient, low-carbon economy and promotion of Renewable Energy Resources (RES)

Cyprus. According to the available information from the National Meteorological Service (2009), temperature has increased by 1oC and precipitation reduced by 100mm (corresponding to 17%) during the last 100 years. These changes, are not only been noticed in statistical data, but have already caused significant impacts to the everyday life of the country. During the last 10 years the extreme weather events are showing an increasing trend and so is their intensity, droughts are more often and longer. Emission of greenhouse gases without LULUCF increased by 93.6% between 1990 and 2008, which corresponds to GHG emissions of 4,932 Gg CO2 equivalents. 76% of the emissions without LULUCF in 2008 were from the sector of energy, compared to 67.5% in 1990. Implementations of Europe 2020 Climate Change and Energy Targets for the Country are as follows:

Table ES 4. Cyprus. Implementations of Europe 2020 Climate Change and Energy Targets

Europe 2020 headline targets	Current situation In Cyprus	National 2020 target
20% greenhouse gas (GHG) emissions reduction compared to 1990	-19% (2020 Projected emissions compared to 2005)	-5%

Europe 2020 headline targets	Current situation In Cyprus	National 2020 target
20% of energy consumption from renewable	-5% (2010 emissions compared to 2005)	(National binding target for
20% increase in energy efficiency	5.7% (2010)	Non-ETS sectors compared to

In this framework, the priorities of funding in order for the country to tackle the main Climate Change and Energy Efficiency development challenges and to implement the Europe 2020 strategy are towards promoting environment-friendly and efficient use of resources, and climate change resilience for sustainable growth and jobs (Shift to an energy efficient, low-carbon economy and promotion of renewable energy resources, Improve management of natural resources and environmental protection, Climate change mitigation and adaptation including risk management, Promote sustainable urban mobility)

Albania. Based on EEA2012 data, according to computer models projections the climate change scenarios for Albania project an annual increase in temperature up to 1°C, 1.8°C, and 3.6°C respectively by 2025, 2050 and 2100. The seasonal temperature and precipitation changes suggest changes towards milder winters, warmer springs, drier autumns, drier and hotter summers.

The main contributor of CH4 emissions is agriculture (74-77 %), followed by waste (8-22 %) and energy (5-20%) while the main contributor of CO2 is the energy sector (44–79 %) followed by land-use change and forestry which contributed 33 % in 1990 but just 16 % in 2000. Industrial processes contributed 2.6-4.9 % while CO2 emissions from the waste, solvents and agriculture sectors were not significant.

Former Yugoslav Republic of Macedonia. YEAP 2000, GHGs emissions from the six main economic sectors, recommended by the Intergovernmental Panel for Climate Change (IPCC) are as follows: energy 64,44%, extraction, transportation, processing and combustion of fossil fuels, industrial processes 6,24%, agriculture 9.64%, land-use change and forestry 13.79%, and waste 5.89%, while CO2 and CH4 correspond roughly to 80.00% and 12,00% of total GHG. The country ratified the Kyoto Protocol in 2004. According to its first greenhouse gases (GHGs) inventory, the country was responsible for the emission of 15.08 million tonnes C02-eq of GHGs in 1998, of which over 74% came from the energy sector, followed by agriculture (10%). waste (>8%). industrial processes (7%). and land use change and forestry (<1%). Climate change in the country is expected to cause negative effects on soil production, causing degradation, desertification, and further soil erosion. The change in temperature regime and perturbation of precipitation distribution over the year will cause disturbances to ecosystems. Considerable movement of plant and animal species in a south-north direction, as well as along the vertical gradient is expected. According to hydrological analysis, the most vulnerable regions will be the eastern and south-eastern parts, while the most vulnerable water economy sectors are water supply and irrigation.

2.5.9 Soil

Bulgaria. The basic dangers for soil deterioration in Bulgaria are coastal erosion, soil and inadequacy of plans and infrastructure for treatment and environmentally accepted disposal of urban and industrial solid wastes. . Industry contaminated soil by disposal of hazardous wastes seems to be a problem, too.

Greece. In Greece the main soil deterioration problem is desertification and salinity issues especially in South Greece and Coastal areas, and inadequacy of plans and infrastructure for treatment and environmentally accepted disposal of urban and industrial solid wastes.

Cyprus. In Cyprus the main dangers is soil erosion and coastal erosion and inadequacy of plans and infrastructure for treatment and environmentally accepted disposal of urban and industrial solid wastes.

Albania. Soil erosion and deterioration is a major problem for Albania, and inadequacy of plans and infrastructure for treatment and environmentally accepted disposal of urban and industrial solid wastes. Industry contaminated soil by disposal of hazardous wastes seems to be a problem, too.

Former Yugoslav Republic of Macedonia

The basic dangers for soil deterioration in Former Yugoslav Republic of Macedonia are soil erosion an inadequacy of plans, and inadequacy of plans and infrastructure for treatment and environmentally accepted disposal of urban and industrial solid wastes.

2.5.10 Protected Areas

Bulgaria. Bulgaria has long - standing traditions on the domain of the protected areas. The dominant part of the protected areas is included into the NATURA 2000 network.

Greece. Greece has an almost untouched natural environment, a characteristic of the majority of the areas of the country. The dominant part of the protected areas is included into the NATURA 2000 network.

Cyprus. All major habitats and ecosystems are included in Cyprus Natura 2000 network.

Albania. The surface area legally declared as protected areas in Albania has more than tripled from 108,475 ha to 378,748 ha, bringing the total proportion of protected areas in different management categories to 13.17 per cent in 2011. Compared with only 5.7 per cent in 2002.

Former Yugoslav Republic of Macedonia. Former Yugoslav Republic of Macedonia has a large number of protected areas. The country is making progress in developing a balanced, representative, and effective network of Protected Areas as per the UNDP/GEF/MoEPP project "Strengthening the Ecological, Institutional and Financial Sustainability of Former Yugoslav Republic of Macedonia Protected Area System" and the Spatial Plan of former Yugoslav Republic of Macedonia.

2.5.11 Cultural Heritage

The history of the Balkan Mediterranean area is important in understanding the origin and development of the western civilization. History, culture and favorable climate generate a strong attractiveness, which boosts the tourism industry, but are as well a source of pressure on cultural and natural heritage.

Bulgaria. A number of ancient civilizations, including the Thracians, Ancient Greeks, Romans, Ostrogoths, Slavs, Varangians and especially Bulgarians, have left their mark on the culture, history and heritage of Bulgaria. Because of this Bulgarian nation has one of the richest folk heritage in the world. Thracian artifacts include numerous tombs and golden treasures, while ancient Bulgarians have left traces of their heritage in music and early architecture. Thracian rituals such as the Zarezan, Kukeri and Martenitza are to this day kept alive in the modern Bulgarian culture.

There are nine UNESCO World Heritage Sites in Bulgaria. The first four properties were inscribed in the World Heritage List in 1979, and the last in 1985. Bulgaria currently has fourteen additional properties on the Tentative List

Greece. The culture of Greece has evolved over thousands of years, beginning in Mycenaean Greece, continuing most notably into Classical Greece, through the influence of the Roman Empire and its successor the Byzantine Empire. Other cultures and states such as the Persian Empire, Latin and Frankish states, the Ottoman Empire, the Venetian Republic, Genoese Republic, and British Empire have also left their influence on modern Greek culture. In ancient times, Greece was the birthplace of Western culture. Modern democracies owe a debt to Greek beliefs in government by the people, trial by jury, and equality under the law. The ancient Greeks pioneered in many fields that rely on systematic thought, including biology, geometry, history, philosophy, and physics. They introduced such important literary forms as epic and lyric poetry, history, tragedy, and comedy. In their pursuit of order and proportion, the Greeks created an ideal of beauty that strongly influenced Western art. There are seventeen UNESCO World Heritage Sites in Greece. Greece currently has fifteen additional properties on the Tentative List.

Cyprus. The History and Culture of Cyprus is among the oldest in the world. The first signs of civilization traced in archaeological excavations and research date back 9,000 years to the 7th millennium BC. This rich cultural landscape involves hundreds of archaeological sites scattered throughout the island, representing various historical periods in the island's evolution. The discovery of copper in Cyprus in the 3rd millennium BC brought wealth to the island and attracted trade from its trading neighbors. Yet, although geographically placed at the crossroads of three continents Europe, Asia and Africa and a meeting point of great world civilizations, Cyprus has developed and for centuries maintained, its own civilization. It remained a center of Greek culture with Hellenistic, Roman, Byzantine, French, Venetian, Ottoman and British influences. According to the UNESCO World Heritage List there are three sites in Cyprus and twelve sites are in tentative list.

Albania. According to the tentative Unesco world heritage list only only one sight located in Albania. Butrint inhabited since prehistoric times. Butrint has been the site of a Greek colony, a Roman city and a bishopric. Following a period of prosperity under Byzantine administration, then a brief occupation by the Venetians, the city was abandoned in the late Middle Ages after marshes formed in the area. The present archaeological site is a repository of ruins representing each period in the city's development.

Former Yugoslav Republic of Macedonia. Former Yugoslav Republic of Macedonia has a rich cultural heritage in art, architecture, poetry, and music. It has many ancient, protected religious sites. Poetry, cinema, and music festivals are held annually. former Yugoslav Republic of Macedonia music styles developed under the strong influence of Byzantine church music. former Yugoslav Republic of Macedonia has a significant number of preserved Byzantine fresco paintings, mainly from the period between the 11th and 16th centuries. There are several thousand square meters of fresco painting preserved, the major part of which is in very good condition and represent masterworks of the Former Yugoslav Republic Of Macedonia School of ecclesiastical painting.

2.6 EXISTING STATE OF THE ENVIRONMENT. ANTHROPOGENIC

2.6.1 Population - Demographic elements

The Balkan Mediterranean 2014-2020 Programme area includes a population of about 24.1 million people (24,8% of the EU28 population). Greece and Bulgaria account for the 75.9% of the programme area population. Demographic trends are very heterogeneous between and within the countries of the Programme area, depending on economic, social and cultural and spatial factors.

2.6.2 Economic Performance

Strong national and regional disparities characterize the socio-economic performance of the programme area. The analysis of the regional GDP per capita performance reveals that the programme area is far from being cohesive. The international economic crisis has put a pressure in the Balkan Mediterranean countries, especially on the countries that are EU-members. This pressure shows a still important position of traditional economic sectors**, which** are based on the activity of a high percentage of fragmented SMEs with often-low added value (DG Enterprise and Industry). The most important point is that the share of the people employed in the SMEs on the total number of employees in the five counties is much higher than the average share in the EU27. These enterprises and the respective sectors will require modernization; partnership and diversification to better compete on national and international markets. The service sector is the prominent economic sector of the whole Programme area despite the national disparities between the five participating

countries. Referring to the other sectors, Albania still shows an important agricultural activity, while Bulgaria and the former Yugoslav Republic of Macedonia show an important secondary sector activity.

2.6.3 Employment

The international economic crisis has worsened the economic performance of the Balkan Mediterranean countries, leading to high unemployment rates. These rates are quite high in the three EU members, as well as in the former Yugoslav Republic of Macedonia. In Albania, the unemployment rate is moderately high, leading in any case to the need for the country to solve the problem of the joblessness.

2.6.4 Social Situation

In 2011, 16.9 % of the EU-27 population was assessed to be at risk of poverty. This share already conceals considerable variations across the EU Member States. In five countries, including Bulgaria and Greece one fifth or more of the population viewed as being at risk of poverty (European Social Statistics, 2013). The at-risk-of-poverty threshold is set at 60 % of the national median equivalised disposable income.

In Albania, as incomes and employment rates are low across the board, most people's average income hovers close to the poverty line. This leads to many people being vulnerable to the effects of downturns in the economy.

The differences in poverty rates are more notable when the population is classified according to activity status. The unemployed are a particularly vulnerable group: those in employment were far less likely to be at risk of poverty. The level of education also represents a relevant factor in terms of poverty. People with low educational attainment are at higher risk of poverty than those with high educational attainment. Moreover, children whose parents' highest level of education was low are at-risk-of-poverty, compared to those whose parents had high level of education.

High education attainment levels are close to the EU-28 average (28.4%) with Cyprus showing a record high of nearly 40% of the population aged between 25 and 64 years tertiary educated. Also in the two candidate countries of the programme, tertiary education is in permanent development: between 2001 and 2011 Albania has more than doubled the number of students attending tertiary education while the EU-27 increase over the same period was on average 2% per year.

2.6.5 Innovation

The number of Science and Technology graduates has increased in all the Balkan Mediterranean countries, becoming a sign of an increasing recognition of the importance of human capital as an engine of growth. Also

this is definitely the basis for introducing innovative activities in these regions. In countries like Greece and Cyprus many young people do not graduate in their home country, but abroad.

In all Balkan Mediterranean countries the R&D expenditure is well below the EU average. The general picture shows, that these regions are lacking behind in R & D activities in comparison to other EU regions.

The investments in telecommunications and IT are linked to the e-society, which is emerging rapidly. The e-society can become instrumental for better social cohesion and future economic development within the Balkan Mediterranean space. However, the impact of ICT on business development is as well depending on the level of internet access of households, which is in general lower than the average of the EU27.

2.6.6 Accessibility

In the Balkan Mediterranean area there is a lack of satisfactory accessibility from the coast to the internal zones and the traffic density in the main corridors and most urbanized areas cannot be solved only by developing road infrastructures. An integrated approach is required with the adaptation of existing transport means and with the development of multimodal/intermodal transport systems (road-rail-sea connections).

In general the Balkan Mediterranean Programme regions have invested in ICT technologies over the last years, but have still not reached a level that come close the EU27 average. Moreover, in terms of using ICT technologies, most of the Balkan Mediterranean regions are lagging behind

2.7 RELEVENCE TO EU STRATEGY

Following table shows the Environmental Aspects/issues relevant for the Programme-Applicable Legislation and European environmental objectives and targets of the legal framework**.**

Table ES 5. BALKAN-MEDITERRANEAN 2014-2020- Environmental Aspects/issues relevant for the Programme-Applicable Legislation and European environmental objectives/targets of the legal framework.

Environmental Aspects/issues relevant for the Programme / Applicable Legislation	**European environmental objectives/targets of the legal framework**
General – Sustainable Development • 7th Environmental Action Programme • EUROPE 2020 Strategy • EU Sustainable Development Strategy	EUROPE 2020 Targets 1. Employment 75% of the 20-64 year-olds to be employed 2. R&D 3% of the EU's GDP to be invested in R&D 3. Climate change and energy sustainability Greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990 20% of energy from renewables 20% increase in energy efficiency 4. Education Reducing the rates of early school leaving below 10% At least 40% of 30-34–year-olds completing third level education 5. Fighting poverty and social exclusion At least 20 million fewer people in or at risk of poverty and social exclusion
Water Issues • EU Water Framework Directive (2000/60/EC) • EU Floods Directive (2007/60/EC) • EU Nitrates Directive (91/676/EEC)	The WFD provides a framework for water protection and management in the EU (Directive 2000/60/EC). Under its implementation, Member States must first identify and analyse European waters, by individual river basin and district. They shall then adopt management plans and Programmes of measures to protect water bodies in all European river basins. The adoption of the WFD has completed earlier EU water policies that are still in place, such as those concerning urban wastewater or bathing water.

• EU Urban Waste Water Directive (91/271/EEC)	In 2012, the Commission published the communication A Blueprint to Safeguard Europe's Water Resources (COM(2012) 673). It focuses on policy actions that can help improve implementation of current water legislation, and on the integration of water policy objectives into other policies. The Blueprint enhances water policies related to water quantity and water resource efficiency for sustainable water management in the timeframe of the EU's 2020 Strategy up to 2050. Besides the WFD and the Blueprint, four water directives contribute to measures ensuring the good status of Europe's waters (the Urban Waste Water Directive (91/271/EEC), the Bathing Water Directive (2006/7/EC), the Nitrates Directive (91/676/EEC) and the Drinking Water Directive (98/83/EC). The Floods Directive (2007/60/EC), which aims to foster flood risk management plans, also significantly enhances the WFD objectives.
Solid Waste Issues • EU Waste Framework Directive (2008/98/EC)	Directive 2008/98/EC sets the basic concepts and definitions related to waste management, such as definitions of waste, recycling, and recovery. It explains when waste ceases to be waste and becomes a secondary raw material (so called end-of-waste criteria), and how to distinguish between waste and by-products. The Directive lays down some basic waste management principles: it requires that waste be managed without endangering human health and harming the environment, and in particular without risk to water, air, soil, plants or animals, without causing a nuisance through noise or odours, and without adversely affecting the countryside or places of special interest.
Soil Issues. • Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670) • Soil Thematic Strategy (COM (2006) 231) • Proposal for a Soil Framework Directive (COM (2006) 232) • UN Convention to Combat Desertification	Different EU policies (for instance on water, waste, industrial pollution prevention, nature protection, pesticides, agriculture) are contributing to soil protection. But as these policies have other aims and other scopes of action, they are not sufficient to ensure an adequate level of protection for all soil in Europe. The communication of the commission (COM (2006) 231) describes the thematic strategy regarding soils protection. The overall objective is protection and sustainable use of soil, based on the following guiding principles: - Preventing further soil degradation and preserving its functions; - Restoring degraded soils to a level of functionality consistent at least with current and intended use, thus also considering the cost implications of the Restoration of soil. To achieve these objectives, action is required at different levels – local, national and European. Action at European level is a necessary addition to the action by Member States
Air Quality Issues • EU Directive on ambient air quality and	This legislation has established health-based standards and objectives for a number of air pollutants and includes:

cleaner air for Europe (2008/50/EC) • Thematic Strategy on Air Pollution (COM (2005) 446)	The Air Quality Framework Directive (96/62/EC). This describes the basic principles concerning the assessment and management of air quality in the Member States. The Directive also lists the pollutants for which air quality standards and objectives have been developed and specified in subsequent legislation The 'Exchange of Information' Decision, which establishes a reciprocal exchange of information and data from networks and individual stations measuring ambient air pollution within the EU Member States. The thematic Strategy on Air Pollution (COM (2005) 446): Compared with the situation in 2000, the Strategy sets specific long term objectives (for 2020): - 47% reduction in loss of life expectancy as a result of exposure to particulate matter; - 10% reduction in acute mortalities from exposure to ozone; - Reduction in excess acid deposition of 74% and 39% in forest areas and surface freshwater areas respectively; - 43% reduction in areas or ecosystems exposed to eutrophication. The strategy is completed by the EU's new air quality directive: the Directive on Ambient Air Quality and Cleaner Air for Europe is one of the key measures in place to address air pollution under the Thematic Strategy on Air Pollution. It is the first EU directive to include limits on ambient concentrations of PM2.5 (fine particulate matter). It also consolidates various existing pieces of air quality legislation into a single directive. Governments had been given two years (as from June 11, 2008) to bring their legislation in line with the provisions of the Directive.
Climate Change Issues • EU Strategy on Climate Change Winning the battle against global climate change" (COM (2005) 35) • European Framework on Climate Change and Energy (Green Book-COM (2013)169) • Kyoto II on basis of UN Kyoto Protocol on Climate Change 1998 • UN and EU Strategy for adaptation to the climate change UNFCCC	The threat of climate change is being addressed globally by the United Nations Framework Convention on Climate Change (UNFCCC). The long-term objective is to stabilise atmospheric greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference wit h the climate system. The UNFCCC's Kyoto Protocol sets binding emission targets for developed countries that have ratified it, such as the EU Member States. It is a first step towards achieving more substantial global emission reductions. A EU Strategy on adaptation to climate change (COM(2013) 216) The overall aim of the EU Adaptation Strategy is to contribute to a more climate-resilient Europe. This means enhancing the preparedness and capacity to respond to the impacts of climate change at local, regional, national and EU levels, developing a coherent approach and improving coordination.
Energy Efficiency Issues • EU Energy Efficiency (2012/27/EC) and 2010/31/EU • Directive 2009/28/EU on the Promotion of	This Directive establishes a common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the Union's 2020 20 % headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date. All EU-28 countries are thus required to use energy more efficiently at all stages of the energy chain – from the

Renewable Energy Use • Energy Road-Map for 2050 (White Bible)	transformation of energy and its distribution to its final consumption. The new Directive will help remove barriers and overcome market failures that impede efficiency in the supply and use of energy and provides for the establishment of indicative national energy efficiency targets for 2020.
Public Health Issues • EU Environmental Noise Directive (END) (2002/49/EC) • EU Health for Growth Programme (2014-2020) (COM (2011) 709) • EU Health Strategy Together for Health (2008- 2013) • WHO Parma Declaration on Environment and Health 2010	The END aims to "define a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to the exposure to environmental noise". For that purpose several actions are to be progressively implemented. It furthermore aims at providing a basis for developing EU measures to reduce noise emitted by major sources, in particular road and rail vehicles and infrastructure, aircraft, outdoor and industrial equipment and mobile machinery. The Health for Growth Programme (2014-2020) is the third multi-annual Programme of European Union (EU) action. It helps/supports Member States in order to: - Undertake the necessary reforms to achieve innovative and sustainable health systems; - Improve access to better and safer health care for citizens; - Promote good health of European citizens and prevent diseases; - Protect European citizens from cross-border threats.
Biodiversity-Fauna-Flora Issues • Habitats Directive (92/43/EEC) • EU 2020 Biodiversity Strategy • UN Convention on Biological Diversity • EU Birds Directive (2009/147/EC) • IUCN Global Species Programme	In its 2001 Strategy for Sustainable Development, the EU sets itself the target to halt the loss of biodiversity and restore habitats and natural systems by 2010 The European Commission's 2006 Biodiversity Communication has provided the main policy framework up to 2010. EU nature conservation policy is based on two main pieces of legislation: • The Birds Directive • The Habitats Directive Both directives provide the basis for the Natura 2000 network, a network of nature reserves which extends across the Union to safeguard species and habitats of Special European interest. EU nature conservation policy benefits from a specific financial instrument, the LIFE-Nature fund. In May 2011, the European Commission adopted a new strategy that lays down the framework for EU action over the next ten years in order to meet the 2020 biodiversity headline target set by EU leaders in March 2010 (COM (2011) 244). According to the strategy and by 2050, European Union biodiversity and the ecosystem services it provides – its natural capital – should be protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human well-being and economic prosperity, and so that catastrophic changes

	caused by the loss of biodiversity are avoided. Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU Contribution to averting global biodiversity loss is priority objectives. Specific objectives: - Full implementation of EU nature legislation to protect biodiversity - Better protection for ecosystems - More sustainable agriculture and forestry - Better management of fish stocks - Tighter controls on invasive alien species - A bigger EU contribution to averting global biodiversity loss
Cultural Heritage Issues • UNESCO World Cultural and Natural Heritage Convention 1972 • Treaty of Lisbon 2007	Treaty of Lisbon 2007 Article 3.3. "(…) The Union shall respect its rich cultural and linguistic diversity, and shall ensure that Europe's cultural heritage is safeguarded and enhanced".
Landscape Issues • European Landscape Convention 2000 • European Landscape Convention 2004 • EU Thematic Strategy on the Urban Environment (COM (2005) 718)	The European Landscape Convention, also known as the Florence Convention, is the first international treaty to be exclusively devoted to all aspects of European landscape. It applies to the entire territory of the Parties and covers natural, rural, urban and peri-urban areas. It concerns landscapes that might be considered outstanding as well as every day or degraded landscapes. The Convention is aimed at: the protection, management and planning of all landscapes and raising awareness of the value of a living landscape
Marine Pollution Issues • EU_Marine Strategy Framework. • Mediterranean Action Plan for the Barcelona Convention • EU Maritime strategy for the Adriatic and Ionian Sea Basins • Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (1996) • Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea Adopted in	Solving environmental problems of Europe's coasts and seas requires a policy response that operates across policy domains related to water, nature, pollution, fisheries, climate change and spatial planning. Historically these have been considered separate policy domains, but with the adoption of the Marine Strategy Framework Directive (MSFD) in 2008, an integrated response is being pursued; the management approach considers the entire ecosystem and sets the objective of achieving good environmental status for many specific environmental aspects. The MSFD is supported by the Water Framework Directive (WFD), which regulates ecological status in coastal and transitional waters by considering nutrient, chemical and hydro morphological pressure and by the Habitats and Birds directives that set conservation objectives for some marine and coastal habitats and species. Growth of the maritime, agriculture and tourism sectors is expected to continue; an important future objective for the MSFD will be to ensure that this growth is environmentally sustainable, via management strategies.

Sofia, Bulgaria, 17 April 2009. • EU Directive on safety of offshore oil and gas operations (2013/30/EU). • EC Marine Strategy Directive 2008/56/EC 2008 PROTOCOL ON INTEGRATED COASTAL ZONE MANAGEMENT IN THE MEDITERRANEAN	Such strategies can be supported through the implementation of planning principles in line with Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP).

The following table shows the Environmental Aspects/issues relevant for the Programme-Applicable Legislation and How the Programme environmental strategy takes into account these Issues, per thematic objective (TO)

Table ES 6. BALKAN-MEDITERRANEAN 2014-2020- Environmental issues relevant for the Programme-Applicable Legislation and How the Programme environmental strategy takes into account these Issues, per thematic objective (TO).

Environmental issues relevant for the Programme / Applicable Legislation	**How the Programme environmental strategy takes into account these Issues, per thematic objective (TO)**		
Priority Axes	**ENTREPRENEURSHIP**	**ENVIRONMENT**	**HORIZONTAL OBJ.**
BALCAN-MED Specific Objectives	**TO3**	**TO6**	
General – Sustainable Development • 7th Environmental Action Programme • EUROPE 2020 Strategy • EU Sustainable Development Strategy			
Water Issues • EU Water Framework Directive (2000/60/EC) • EU Floods Directive (2007/60/EC) • EU Nitrates Directive (91/676/EEC) • EU Urban Waste Water Directive (91/271/EEC)			
Solid Waste Issues • EU Waste Framework Directive (2008/98/EC)			
Soil Issues. • Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670) • Soil Thematic Strategy (COM (2006) 231) • Proposal for a Soil Framework Directive (COM (2006) 232) • UN Convention to Combat Desertification • Soil Thematic Strategy (COM (2006) 231)			
Air Quality Issues • EU Directive on ambient air quality and cleaner air for			

Europe (2008/50/EC) • Thematic Strategy on Air Pollution (COM (2005) 446)			
Climate Change Issues • EU Strategy on Climate Change Winning the battle against global climate change" (COM (2005) 35) • European Framework on Climate Change and Energy (Green Book- COM(2013)169) • Kyoto II on basis of UN Kyoto Protocol on Climate Change 1998			
Energy Efficiency Issues • EU Energy Efficiency (2012/27/EC)			
Public Health Issues • EU Environmental Noise Directive (END) (2002/49/EC) • EU Health for Growth Programme (2014-2020) (COM (2011) 709) • EU Health Strategy Together for Health (2008-2013)8 • WHO Parma Declaration on Environment and Health2010			
Biodiversity-Fauna-Flora Issues • Habitats Directive (92/43/EEC) • EU 2020 Biodiversity Strategy • UN Convention on Biological Diversity • EU Birds Directive (2009/147/EC) • IUCN Global Species Programme			
Cultural Heritage Issues • UNESCO World Cultural and Natural Heritage Convention 1972 • Treaty of Lisbon 2007			
Landscape Issues • European Landscape Convention 2000 • European Landscape Convention 2004 • EU Thematic Strategy on the Urban Environment (COM (2005)			

718)			
Marine Pollution Issues • EU_Marine Strategy Framework. • Mediterranean Action Plan for the Barcelona Convention • EU Maritime strategy for the Adriatic and Ionian Sea Basins • Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (1996) • Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea Adopted in Sofia, Bulgaria, 17 April 2009. • EU Directive on safety of offshore oil and gas operations (2013/30/EU).			

LEGEND	Targeted potential Impact	Non-targeted potential Impact	No targeting

2.8 ENVIRONMENTAL CRITERIA FOR BALKAN - MEDITERRANEAN PROGRAMME POTENTIAL ENVIRONMENTAL IMPACTS ASSESSMENT

The analysis of the potential impacts on the environment of the BALKAN-MEDITERRANEAN 2014-2020 Programme is based on the development of a set of Environmental Thematic Targets (ETT) per Environmental Aspect/Issue relevant to the Programme. Following that, a synoptic grid of questions shows the impacts (positive or negative for the environment) for each action. The questions cover all the spectrum of the environment aspects mentioned in the directive and are compatible to the environmental legislation.

The environmental criteria are presented below based on the above methodology

Table ES 7. Environmental Questions, criteria for BALKAN- MEDITERRANEAN 2014-2020 potential Environmental impacts assessment

Environmental issues relevant for the Programme / Applicable Legislation/Environmental Targets	**Environmental Questions, criteria for BALKAN-MEDITERRANEAN 2014-2020 potential Environmental impacts assessment**
General – Sustainable Development • 7th Environmental Action Programme • EUROPE 2020 Strategy • EU Sustainable Development Strategy	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving EUROPE 2020 Targets? Implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact the need for networks for transport, energy and the relative construction/operational cost? • Impact balanced city-country growth? • Impact regional accessibility? • Impact on green or blue economy? • Impact social cohesion and protection of vulnerable part of population? • Impact the abundance of population in semimountaineous-mountaineous-rural regions? • Impact access to social goods?
BALKAN- MEDITERRANEAN2014-2020 Thematic Target **BALKAN- MEDITERRANEAN 2014-2020 Thematic Target** **" Contribution to General Sustainable Development Issues based on EU strategies ".** **REMARK** EUROPE 2020 is a basic rationale for the Programme BALKAN-MEDITERRANEAN 2014-2020. Therefore implementation of BALKAN-MEDITERRANEAN 2014-2020 measures will enhance achieving EUROPE 2020 Targets	

Water Issues • EU Water Framework Directive (2000/60/EC) • EU Floods Directive (2007/60/EC) • EU Nitrates Directive (91/676/EEC) • EU Urban Waste Water Directive (91/271/EEC) ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target " Contribution to Water bodies Protection and improvement of their quantitative and qualitative characteristic based on EU legal strategies ".**	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving legislation target, of • WFD targets • Urban Waste Water Directive (91/271/EEC), targets • Bathing Water Directive (2006/7/EC) targets • Nitrates Directive (91/676/EEC) targets • Drinking Water Directive (98/83/EC) targets • Floods Directive (2007/60/EC) targets. Implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact water erosion processes? • Impact surface or groundwaterr withdrawals? • Impact on water management?
Solid Waste Issues • EU Waste Framework Directive (2008/98/EC) ⇩ **BALKAN- MEDITERRANEAN 2014-2020 Thematic Target " Contribution to efficient Solid Waste Management based on EU legal strategies ".**	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving the targets of EU Waste Framework Directive (2008/98/EC) How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact • Waste production (household and industrial), their composition or hazardous characteristics? • Waste recovery (household and industrial)?
Soil Issues. • Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670) • Soil Thematic Strategy (COM (2006) 231) • Proposal for a Soil Framework Directive (COM (2006) 232) • UN Convention to Combat Desertification • Soil Thematic Strategy (COM (2006) 231) ⇩ **BALKAN- MEDITERRANEAN 2014-2020 Thematic Target " Contribution to Soil protection from pollution and conservation of productive land based on EU legal strategies ".**	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving the targets of EU Soil Thematic Strategy How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact • Loss of critical for economy or habitat land? • On soil pollution due to solid wastes or agricultural residues? • Soil decontamination/remediation?

Air Quality Issues • EU Directive on ambient air quality and cleaner air for Europe (2008/50/EC) • Thematic Strategy on Air Pollution (COM (2005) 446) ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target** **" Contribution to improvement of air quality based on EU legal strategies ".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact atmospheric pollution?
Climate Change Issues • EU Strategy on Climate Change Winning the battle against global climate change" (COM (2005) 35) • European Framework on Climate Change and Energy (Green Book-COM (2013)169) • Kyoto II on basis of UN Kyoto Protocol on Climate Change 1998 ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target** **" Participation to National and International Effort to adaptation and combat of Climate Change".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact on achieving the legislative GHG reduction targets? • Impact emission of GHG? • Improve the resilience of ecosystems to climate change? • Impact on the possibilities of extreme weather phenomena (heat waves, flooding) • Impact on the coastal erosion?
Energy Efficiency Issues • EU Energy Efficiency (2012/27/EC) ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target** **" Contribution to Energy Efficiency Issues based on EU strategies ".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact on achieving the legislative renewable energy penetration and energy efficiency targets? • Increase the share a more efficient, greener, more competitive and low-carbon economy • Impact energy efficiency in the productive sector?
Public Health Issues • EU Environmental Noise Directive (END) (2002/49/EC) • EU Health for Growth Programme (2014-2020) (COM (2011) 709) • EU Health Strategy Together for Health (2008- 2013) • WHO Parma Declaration on Environment and Health 2010 ⇩	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving the targets of Health for Growth Programme (2014-2020). How may Implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact the atmospheric environment? • Impact the acoustic environment? • Impact management and resilience to natural hazards?

BALKAN-MEDITERRANEAN 2014-2020 Thematic Target " Contribution to protection of Public Health based on EU and International legal strategies ".	• Impact management and resilience to industrial risks? • Impact odour pollution? • Impact accessibility to health services?
Biodiversity-Fauna-Flora Issues • Habitats Directive (92/43/EEC) • EU 2020 Biodiversity Strategy • UN Convention on Biological Diversity • EU Birds Directive (2009/147/EC) • IUCN Global Species Programme ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target «Contribution to decreasing the deterioration in the status of all species and habitats covered by EU nature legislation and achieve a significant improvement in their status".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact the surface and cohesion of protected areas? • Impact the protection levels and pressures of protected areas and forests? • Impact the loss of biodiversity? • Impact the ecological coherence of territories? • Impact habitats (terrestrial and aquatic)? • Impact the preservation of rare endemic and protected species?
Cultural Heritage Issues • UNESCO World Cultural and Natural Heritage Convention 1972 • Treaty of Lisbon 2007 ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target " Contribution to landscapes protection and promotion of natural and cultural monuments/sites based on EU and International legal strategies ".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact landscapes, preservation and promotion of natural and cultural monuments/sites?
Landscape Issues • European Landscape Convention 2000 • European Landscape Convention 2004 • EU Thematic Strategy on the Urban Environment (COM (2005) 718) ⇩	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact landscapes, preservation and promotion of natural and cultural monuments/sites?

BALKAN-MEDITERRANEAN 2014-2020 Thematic Target " Contribution to landscapes protection and promotion of natural and cultural monuments/sites based on EU and International legal strategies ".	
Population Material Asset Management Issues ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target " Enhancing Protection of Public Properties and Social Cohesion".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact • Loss of critical for economy or habitat land • Land Prices, and land ownership? • Standards of living and labour of the citizen? • Regional accessibility? • Economic growth? • Business compositeness?
Marine Pollution Issues • EU_Marine Strategy Framework. • Mediterranean Action Plan for the Barcelona Convention • EU Maritime strategy for the Adriatic and Ionian Sea Basins • Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (1996) • Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea Adopted in Sofia, Bulgaria, 17 April 2009. • EU Directive on safety of offshore oil and gas operations (2013/30/EU). ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target " Contribution to Mediterranean, Adriatic and Baltic Sea Protection and improvement of their quantitative and qualitative characteristic based on EU legal strategies ".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact • Water quality of transitional waters and coastal waters? • Marine water quality? • Commitments for Coastal Zone protection? • Fish recourses?

2.9 ASSESSMENT OF PROGRAMME ALTERNATIVE

In this chapter the potential alternatives in planning the Programmes implementation are presented and evaluated according to the Directive 2001/42/EU.

The frame of Regulations that govern the Programme incorporate the basic principles of the EU policies, so consequently the potential of deviation from these is limited.

The fact that the Programmers of the Programmatic period 2014-2020 maintain the level of analysis and distribution of resources at the level of their priority axes should be considered, since it constrains the potential of formulation of alternative solutions regarding the content of the BALKAN- MEDITERRANEAN Programme.

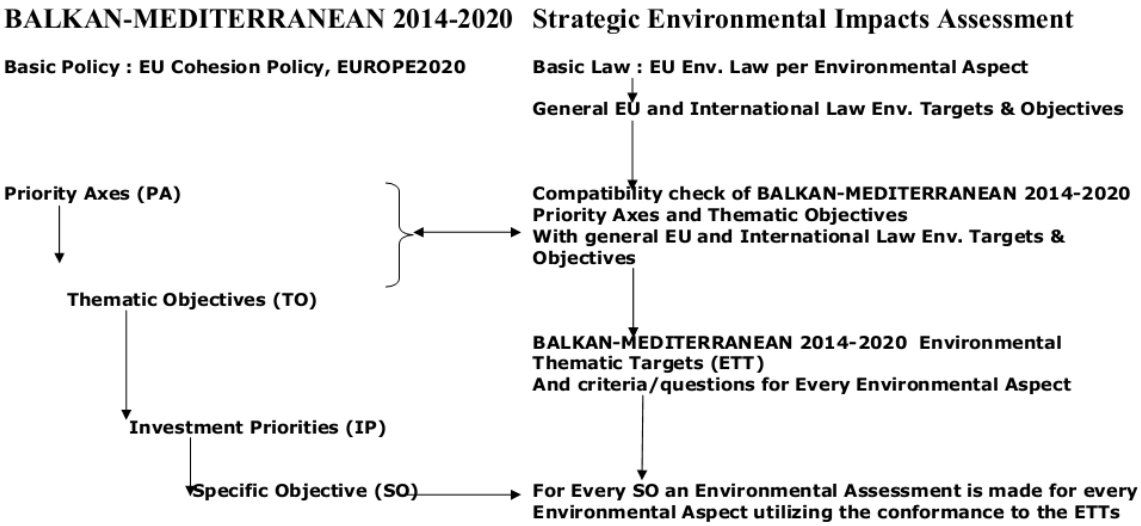
Zero Solution: The alternative, which will be examined, is the zero solution. Zero solution is assessed as the most unfavorable in general and environmental level for the following reasons:

- It is opposed to the general principle of the EU for the cohesion and balancing of inequalities in governmental and regional level.
- The advantages, which occur due to the cross-border cooperation of the countries, are lost. These advantages occurred from the cooperation in sectors that have been tried in the past and are related with mainly environmental subjects of the five countries. Especially in the environmental sector this will have negative long term effects mainly in the implementation of innovative methods in vital subjects that increase competition and environmental performances.
- The cooperation and contact between five neighbouring countries is limited. This cooperation concerns exchange of experience and know-how and the development of linkages between institutions and stakeholders of public and private sector of the five countries in subjects that need coordinated common actions. Especially in the environmental sector (mainly in water management, marine environment, sensitive sites and species management, sustainable tourism, abatement technology dissemination), this will have negative long term effects mainly in the implementation of innovative methods in vital subjects that increase competition and environmental performances.

2.10EVALUATION & POTENTIAL ENVIRONMENTAL IMPACT ASSESMENT METHODOLOGY

The evaluation of potential environmental impact methodology that was followed is presented at the following table.

Figure ES 1. Evaluation of potential environmental impacts methodology.



For every Specific Objective of BALKAN-MEDITERRANEAN 2014-2020 Priority Axes, and Thematic Objectives the questions related to each ETT of the Programmes are evaluated. These questions can be found previously in this chapter, which is provided in chapter 3. Based on these questions the environmental thematic targets, which the implementation of each Specific Objective might have an impact upon, are identified.

The varieties of these potential environmnetal impacts are the following:

Positive impact: when the impact of the Specific Objective activities to the environmental target is directly positive. **Symbolism +**

Indirect positive impact: when the impact of the Specific Objective activities to the environmental target is indirectly positive. **Symbolism (+)**

Neutral impact: when the impact of the Specific Objective activities to the environmental target is neutral. **Symbolism 0**

Indirect negative impact: when the impact of the Specific Objective activities to the environmental target is indirectly negative. **Symbolism (-)**

Negative impact: when the impact of the Specific Objective activities to the environmental target is directly negative. **Symbolism -**

Within the framework of the Programme a number activities will be implemented, the Programme does not fully designate these activities but just describe them. Thus the evaluation of the environmental impacts, which will occur by the Programme's implementation, is rather qualitative than quantitative

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2.11 ASSESSMENT AND EVALUATION OF THE POTENTIAL ENVIRONMENTAL IMPACTS

2.11.1 Priority Axis 1: "ENTREPRENEURSHIP"

The analysis of the aassessment of the potential environmental impacts of the implementation of the Priority Axis 1 "Entrepreneurship" to the specific environmental targets per specific TO, IP and SO, is presented at the following table

Table ES 8. Assessment of the impacts of Priority Axis 1 "Entrepreneurship" to the specific environmental targets.

PRIORITY AXIS 1: ENTREPRENEURSHIP AND INNOVATION							
Thematic Objective 3: Enhancing the competitiveness of SMEs'							
Selected Investment Priority: **IP3.a.:** Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators.			**Specific Objective:** **SO1.1:** Promote entrepreneurship and business creation on the basis on new ideas, innovation and new types of business models.				
Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets							
General –sustainable Development Issues	+	**Water Issues**	0	**Solid Wastes Issues**	0	**Soil Issues**	0
Air Quality Issues	0	**Climate Change and Energy Issues**	0	**Public Health Issues**	0	**Biodiversity-Fauna-Flora Issues**	0
Cultural Heritage Issues	0	**Landscape Issues**	0	**Population-Asset Management**	0	**Sea Pollution Issues**	0
Comments on Potential Impacts Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO **are not expected to have any potential negative environmental impact**. The TO3- IP3.a -SO1.1 sets goals that do not include objectives that could harm or influence the environmental status. Taking into consideration that these actions don't include large scale construction works, which may have been negative and possibly non reversible environmental impacts, the before mentioned SO1.1. isn't expected to have negative impacts to the biotic and abiotic environment of the selected site. This SO is expected to enhance business competitiveness, something that is very important for the entrepreneurship development and business openings to European markets. Important role to this enhancement is the geographical position of the region. *Therefore implementation of programme BALKAN-MEDITERREAN above*							

mentioned specific IP and SO are expected to have direct positive impact related to sustainable development Issues.

Selected Investment Priority: **IP3.d.:** Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes	**Specific Objective:** **SO1.2:** Facilitate innovation in business models and allow a maximum number of SMEs to innovate and adjust their business models to the changing socioeconomic and policy/regulatory circumstances.

Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets

General –sustainable Development Issues	+	**Water Issues**	0	**Solid Wastes Issues**	0	**Soil Issues**	0
Air Quality Issues	0	**Climate Change and Energy Issues**	0	**Public Health Issues**	0	**Biodiversity-Fauna-Flora Issues**	0
Cultural Heritage Issues	0	**Landscape Issues**	0	**Population-Asset Management**	0	**Sea Pollution Issues**	0

Comments on Potential Impacts

Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO **are not expected to have any potential negative environmental impact.**

The TO3-IP3.d- SO1.2 sets goals that do not include objectives that could harm or influence the environmental status. Taking into consideration that these actions don't include large scale construction works, which may have been negative and possibly non reversible environmental impacts, the before mentioned SO1.2. isn't expected to have negative impacts to the biotic and abiotic environment of the selected site. This SO is expected to enhance business competitiveness through innovation, something that is very important for the entrepreneurship development and business openings to European markets. Important role to this enhancement is the geographical position of the region. *Therefore implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are expected to have direct positive impact related to sustainable Development Issues*

Thematic Objective 10: Investing in education, training and vocational training for skills and lifelong learning by developing education and training infrastructure

Selected Investment Priority: **Developing and implementing joint education and training systems**	**Specific Objectives:** **SO1.3:** Support entrepreneurial learning and knowledge transfer for more competitive SMEs.

Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets

General –sustainable Development Issues	+	**Water Issues**	0	**Solid Wastes Issues**	0	**Soil Issues**	0
Air Quality Issues	0	**Climate Change and Energy Issues**	0	**Public Health Issues**	0	**Biodiversity-Fauna-Flora Issues**	0
Cultural Heritage Issues	0	**Landscape Issues**	0	**Population-Asset Management**	0	**Sea Pollution Issues**	0

Comments on Potential Impacts
Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SOs **are not expected to have any potential negative environmental impact.** TO10-SO1.3 sets goals that do not include objectives that could harm or influence the environmental status. Taking into consideration that these actions don't include large scale construction works, which may have been negative and possibly non reversible environmental impacts, the before mentioned SO1.3 is not expected to have negative impacts to the biotic and abiotic environment of the selected site. This SO is expected to enhance business knowledge transfer and provide revevant skills to entrepreneurs, something that is very important for the entrepreneurship development and business openings to European markets. Important role to this enhancement is the geographical position of the region. *Therefore implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SOs are expected to have direct positive impact related to sustainable Development Issues*

2.11.2 Priority Axis 2: "Environment"

The analysis of the aassessment of the potential environmental impacts of the implementation of the Priority Axis 2 "Environment" to the specific environmental targets per specific TO, IP and SO,, is presented at the following table

Table ES 9. Assessment of the impacts of Priority Axis 2 "Environment" to the specific environmental targets.

PRIORITY AXIS 2: ENVIRONMENT			
Thematic Objective 6: Preserving and protecting the environment and promoting resource efficiency			
Selected Investment Priority: **IP6.C.:** Conserving, protecting, promoting and developing natural and cultural heritage.		**Specific Objective:** **SO2.1:** Maintain biodiversity and natural ecosystems by strengthening networking and management of protected areas, including Natura 2000.	
Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets			
General –sustainable Development Issues +	**Water Issues** +	**Solid Wastes Issues** +	**Soil Issues** +
Air Quality Issues +	**Climate Change and Energy Issues** +	**Public Health Issues** +	**Biodiversity-Fauna-Flora Issues** +
Cultural Heritage Issues +	**Landscape Issues** +	**Population-Asset Management** +	**Sea Pollution Issues** +
Comments on Potential Impacts Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO **are not expected to have any potential negative environmental impact**. On the contrary the rational of this PA, IP and SO are promoting environmental protection in every aspect Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are expected to have direct positive impact related to sustainable Development Issues			

Selected Investment Priority: **IP6.f.:** Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution.		**Specific Objective:** **SO2.2:** : Promote cooperation and networking aiming to introduce innovative technologies for efficient management of the waste sector, the soil and the water sector including adaptation to the Water Framework Directive (EC/60/2000)	
Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets			
General –sustainable Development Issues +	**Water Issues** +	**Solid Wastes Issues** +	**Soil Issues** +
Air Quality Issues +	**Climate Change and Energy Issues** +	**Public Health Issues** +	**Biodiversity-Fauna-Flora Issues** +
Cultural Heritage Issues +	**Landscape Issues** +	**Population-Asset Management** +	**Sea Pollution Issues** +
Comments on Potential Impacts Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO **are not expected to have any potential negative environmental impact**. On the contrary the rational of this PA, IP and SO are promoting environmental protection in every aspect Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are expected to have direct positive impact related to sustainable Development Issues			
Thematic Objective 11: Enhancing institutional capacity of public authorities and stakeholders and efficient public administration through actions to strengthen the institutional capacity and the efficiency of public administrations and public services related to the implementation of the ERDF, and in support of actions under the ESF to strengthen the institutional capacity and the efficiency of public administration			
		Specific Objective: **SO2.3:** Develop skills for better environmental management and increase governance capacities.	
Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets			
General –sustainable Development Issues +	**Water Issues** (+)	**Solid Wastes Issues** (+)	**Soil Issues** (+)
Air Quality Issues (+))	**Climate Change and Energy Issues** (+)	**Public Health Issues** (+)	**Biodiversity-Fauna-FloraIssues** (+)
Cultural Heritage Issues (+)	**Landscape Issues** (+)	**Population-Asset Management** (+)	**Sea Pollution Issues** (+)
Comments on Potential Impacts Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO **are not expected to have any potential negative environmental impact**. On the contrary the rational of this PA, IP and SO are promoting indirectly environmental protection in every aspect Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are expected to have direct positive impact related to sustainable Development Issues			

2.11.3 Priority Axis 3 – Technical Assistance

Priority Axis 3 "Technical Assistance" is a tool for the enhancement of the programme management and is not expected to have a negative impact on the environment. Of course proper management and programme implementation enhances the efficiency of the relevant actions. In that sense Priority Axis 3 "Technical Assistance" can be seen as an horizontal action with an indirect positive potential impact on the environment

2.12ASSESSMENT OF THE OVERALL POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROGRAMME

The assessment of the overall impacts of the Programme to the nine examined environmental aspects is presented in the following table. The table is extracted by providing scores to the direct and indirect positive or negative impacts of each specific objectives of the priority axes in each environmental target. The total scores are presented below according to the following rule:

Positive impacts: **+2 units**

Indirect positive impact: **+1 unit**

Neutral impact: **0 units**

Indirect negative impact: **-1 unit**

Negative impact: **-2 units**

In the last vertical column, the total assessed impact for each environmental aspect is presented taking into account the measures in both priority axes. In the last horizontal column, the total impact in each priority axis is presented. By assessing the environmental impacts of the BALKAN- MEDITERRANEAN Programme, the following conclusions can be derived:

Table ES 10. Cumulative Assessment of BALKAN- MEDITERRANEAN implementation impacts to the Environmental Targets

ENVIRONMENTAL TARGETS.	PRIORITY AXIS 1: ENTREPRENSHIP AND INNOVATION	PRIORITY AXIS 2: ENVIRONMENT	TOTAL
General –sustainable Development Issues	6	6	12
Water Issues		5	5
Solid Wastes Issues		5	5
Soil Issues		5	5
Air Quality Issues		5	5
Climate Change and Energy Issues		5	5
Public Health Issues		5	5
Biodiversity-Fauna-Flora Issues-Flora-Fauna		5	5

Cultural Heritage Issues		**5**	**5**
Landscape Issues		**5**	**5**
Population-Materials Asset Management Issues		**5**	**5**
Sea Pollution Issues		**5**	**5**
TOTAL	**6**	**61**	**67**

2.13 MEASURES TO MITIGATE POTENTIAL ENVIRONMENTAL IMPACTS

The main points that need to be addressed, so that the environmental effectiveness of the BALKAN-MEDITERRANEAN Programme is enhanced and the maximum results are accomplished, are summarized below:

- Promotion of the maximum cooperation for the utilization of the Programme funds and development possibilities. In order for the maximum results to be achieved, the cross – border character of the Programme must be utilized and priority should be given to activities that enhance the cooperation between the two countries, targeting to the jointly facing of the environmental problems. This cooperation will result to the effective short and long-term improvement of the natural and human environment.
- Aim to the maximum synergy of the sectoral strategies and the regional relevant Programme. Both the limited available resources of the Programme and the cross – border character demand the supplementation by sectoral and regional strategies. In this framework, and especially for the environmental sector, the maximum possible synergy with the business Programme of the new Programming period must be investigated.
- Focus on the special environmental needs of the cooperation area. Before the funding of the activities, the sectors of the Programme must be set in order of precedence, focusing on the needs of the area.
- Aim to maximum result through the assessment of the cost and benefit of the proposed projects. It is very important to assess as many as possible parameters during the selection of the proposals, so as to fund actions that will bring the maximum results.
- Evaluation of the local disparities that are detected in the area during the selection of the projects that will be funded, aiming to the development of the less developed parts of the cooperation area. Through this direction, the maximum utilization of the fund will be accomplished and the strategic objectives of the Programme will be succeeded.

- Aim to communication and exchange of best practices and methods. The cross – border cooperation may contribute to the exchange of know-how between the two countries. This exchange is very important for the development of new business sectors and the competitiveness improvement in the area, securing the economic development and increasing employment. The transfer of best practices is of great importance, especially in cases where one country is more developed than the other.
- Utilization of the existing infrastructures and human scientific resources of the cooperation area.
- Full implementation of the European and national legislative framework regarding the environmental licensing of projects and activities that are included in the field of the BALKAN- MEDITERRANEAN 2014-2020 Programme.

2.14 ENVIRONMENTAL MONITORING SYSTEM

The monitoring of the BALKAN- MEDITERRANEAN Programme is one of the main factors for the successful implementation of the Programme and one of the main requirements of the European Directive 2001/42/EC. The monitoring of the Programme and of its environmental impacts should be ensured at all stages in order to identify immediately and deal with the non-conformities. This is important in order to undertake all the necessary corrective activities, if required.

The correct choice of the indicators is an essential precondition for the successful monitoring of the Programme. The indicators will contribute to the evaluation of the Programme results. The proposed indicators that are presented below are specific and qualitative and can be monitored during the approval of the projects.

In table ES 11, that follows in the next page , suggested Indicators Monitoring the Environment are presented

Table ES 11. Suggested Environmental Monitoring Indicators for BALKAN- MEDITERRANEAN

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
PRIORITY AXIS 2 ENVIRONMENT.										
Thematic Objective 6 Preserving and protecting the environment and promoting resource efficiency	**6c:** Conserving, protecting, promoting and developing natural and cultural heritage	**SO 2.1.** Maintain biodiversity and natural ecosystems by strengthening networking and management of protected areas, including Natura 2000	IP 6.c SO 2.1	Level of sustainable use of natural and cultural heritage	Rating on a scale from 1 - 10	Established through survey	2014	To be established after baseline survey: increasing sustainability	Survey among selected key actors	2018, 2023
			IP 6.c SO 2.1	Strategies/policies/ plans/models and tools jointly developed and tested	Number			10 (2023)	Project reports	annually
				Designated areas addressed (of which Natura 2000 sites)	Number			15 (7) (2023)	Project reports	annually
				Networks of transnational cooperation established for natural & cultural conservation	Number			8 (2013)	Project reports	annually

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
	6 f: Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution	**SO 2.2.** Promote cooperation and networking aiming to introduce innovative technologies for efficient management of the waste sector, the soil and the water sector including adaptation to the Water Framework Directive (EC/60/2000)	IP 6.f SO 2.2	Efficient resources' management increased (scale to be established)	Rating on a scale from 1-10	Established through survey	2014	To be established after baseline survey: increasing sustainability	Survey among selected key actors	2018, 2023
			IP 6.f SO 2.2	Strategies/policies/ plans/models and tools jointly developed and tested	Number			8 (2013)	Project reports	annually
				Technologies' implementation related to the water efficient management	Number			5 (2013)	Project reports	annually
				Networks of transnational cooperation established to improve resource management efficiency	Number			3 (2013)	Project reports	annually

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
Thematic Objective 11 Enhancing institutional capacity of public authorities and stakeholders and efficient public administration through actions to strengthen the institutional capacity and the efficiency of public administrations		**SO 2.3.** Develop skills for better environmental management and increase governance capacities	IP 11 SO 2.3	Increase in compliance with EU specific environmental legislation	%	0%	2014	5%	Projects reports Programme annual report	2018, 2023
			IP 11 SO 2.3	Trained stakeholders (of which public servants)	Number			100 (70) (2013)	Project reports	annually
				Training programmes' implemented	Number			12 (2013)	Project reports	annually
				Networks of transnational cooperation established between public administrators dealing with environmental legislation enforcement	Number			4 (2013)	Project reports	annually

LEGEND	Strictly Environmental Indicator	Sustainable Development Indicatort	

3. BALKAN-MEDITERRANEAN 2014-2020 PROGRAMME. Environmental approach.

In this chapter, the scope and objectives of the BALKAN-MEDITERRANEAN 2014-2020 Programme is presented. In addition, the international objectives in the field of environmental protection are also described, as well as the way these are incorporated in the rational of the Programme. The overall objective is the contribution to the Strategic Development Framework for the protection of the environment.

3.1 BALKAN- MEDITERRANEAN 2014-2020 OVERALL OBJECTIVE OF THE PROGRAMME.

The programme objective is to build on shared territorial assets and promote integrated territorial development and cooperation for a more competitive and sustainable Balkan – Mediterranean area.

To reach this objective the programme builds in local entrepreneurship potential and in natural assets, both supported by a training and capacity building scheme. It is a holistic approach clearly targeting the area's smart and sustainable growth potential, horizontally supported by a comprehensive training scheme to improve labour force skills and motivate inclusive growth. Therefore the programming framework totally embeds the EU 2020 strategy for smart, sustainable and inclusive growth.

The programme is expected to have a significant impact on the area, enhancing regional cooperation through continued EU support as well as promoting further EU integration. Transnational cooperation may contribute to improve regional and territorial practices. Hence, the Balkan – Mediterranean 2014 – 2020 transnational cooperation programme (TNCP) will grant a specific attention to the coherence, complementarity and transfer of experiences and practices with regional and national programmes that can feed transnational actions and benefit of their results. For 2014-2020, the transfer of experience between actors, territories and programme is considered as a major goal for the Balkan-Mediterranean Programme.

This will be done taking into account the potential and challenges of specific sectors related to the blue and green growth. Moreover, the Programme shares large parts of its cooperation area (Greece & Albania) with the EU strategy for the Adriatic and Ionian Region (EUSAIR) and with the Danube macro-regional strategy (Bulgaria). Therefore, the Programme may contribute to the implementation of the Action Plan of the above-mentioned Strategies; synergies and coordination activities between Programmes are envisaged on the different priorities axes and investment priorities.

Taking into account the aim to mobilise the growth potential of the participating countries and the region as a whole, the following added value fields have been identified and confirmed through the public consultation process:

- Geography: as the programme addresses actors across from all over the participating countries' areas, transnational cooperation partnerships can be built from all over the five (5) participating countries and not just from a limited number of border regions.
- Diversity: the programme covers internal and external EU borders, both terrestrial and maritime. Consequently, the programme can unfold both strands of the EU 2020 strategy, terrestrial and maritime pillars, triggering green and blue growth accordingly.
- Growth drivers' range: as a result of its extended geography and diversity the programme addresses a wider pool of growth drivers sharing common challenges that can accordingly be addressed by a wider pool of methods and practices.
- Critical mass: transnational territorial cooperation is of particular value as transnational cooperation partnerships can secure economies of scale and critical mass, enhancing mobilisation capacity and innovation potential, both key competitiveness issues to overcome markets' fragmentation.
- Policy learning and governance: learning through cooperation is an effective mechanism for spreading know-how and enhance capacities and skills. Focused transnational cooperation can improve governance delivery in both public and corporate sectors.
- Building structures for further cooperation: structures (administrative, institutional, social and private) set up in cooperation programmes facilitate continuity and sustainability of lessons learned while at the same time they are setting the basis for further and more focused cooperation schemes.

Taking into account the programme's territorial dynamics as well as limited financial resources, a strong thematic focus has been promoted taking also advantage of the possibility to combine investment priorities from different thematic objectives in order to increase impact, effectiveness and coherence within each priority challenge tackled by the respective priority axis. Thus the programme develops a leverage effect on regional development by investing in the holistic capacity to boost entrepreneurship, to protect the environment and to promote the efficient use of resources.

3.2 BALKAN- MEDITERRANEAN 2014-2020 PROGRAMME PRIORITIES.

Two priority axes have been defined in response to the identified transnational key challenges and opportunities above. A third one concerns the Technical Assistance. They are briefly introduced in the following section.

Priority 1: 'Entrepreneurship and Innovation'

Priority Axis 1 is dedicated to actions that will build on the SMEs' capacity and improve their competitiveness, while promoting and supporting the emergence of new SMEs. The Priority will encourage SMEs' cooperation through networks, clusters and clusters policies, in particular that are outward looking and therefore promote their internationalisation.

A special focus of this Priority will be the enhancement of the capacity of SMEs through the implementation of actions related to education and training. The aim is to enable SMEs to acquire the necessary skills/tools to boost their competitiveness, to grow towards other markets and introduce innovation in all phases of their business cycle. By linking education and businesses, this Priority also target to transpose innovation into business practices and processes. Synergies will also be sought with opportunities provided by Cohesion Policy, in particular via regional innovation strategies involving SMEs and other territorial cooperation programmes.

Priority 2: 'Environment'

Priority Axis 2 aims at strengthening integrated joint approaches to preserve and manage the rich natural and cultural heritage in the region as a prerequisite and a fundamental basis for sustainable development and inclusive growth. Among others, the priority will also support the development of the region as a tourist destination, fostering the "Balkan – Mediterranean" identity. Balance between tourism, environmental protection and economic growth will be sought. The programme will bring together different stakeholders dealing with the protection of natural and cultural heritage. The development and implementation of common strategies and approaches will foster for the protection and sustainable use of natural and cultural heritage. Development of common brands is also creating a favourable environment for sustainable tourism practices, which are based on the valorisation of natural and cultural heritage. The priority will encourage networking and partnerships among central, regional and local administrations, as well as non-governmental organisations, business support centres, tourist agencies, other actors. The programme area has a potential to strengthen common approaches to foster green and blue growth opportunities, promote classified sites

and areas of community importance (Natura 2000) develop theme paths and joint products, all guided by a shared policy framework.

In addition, implementation of innovative technologies to protect the environment and guarantee resource efficiency will also be in the focus of the priority.

The capacity of local actors to apply innovative approaches in developing the rich environmental potential of the region will be enhanced through joint education and training activities, sharing and implementing of best practices in the field.

Horizontal dimensions

Apart from thematic orientation, the Balkan – Mediterranean 2014 – 2020 transnational cooperation programme addresses horizontal thematic aspects highlighted in the EU regulations: sustainable development, equal opportunities and non-discrimination, equality between men and women.

Besides the thematic concentration and the choice of Thematic Objectives, specific issues will be addressed in a cross-cutting way in the different investment priorities of the programme contributing to the overall objectives of the Programme:

- Social cohesion

In different fields of intervention, a positive attention will be paid to projects involving partners or taking measures that have positive effects on social cohesion. This is especially the case when involving social enterprises or the implementing actions improving the conditions of target groups confronted with economic and social integration difficulties. Additionally, there should be a general effort on reducing unemployment and mitigating the risk of poverty and social exclusion in the Balkan-Mediterranean region and on promoting inclusive growth.

- Connectivity & Accessibility

The promotion of connectivity on the Programme area (including ICT products, services and applications) constitutes a relevant support for socioeconomic development, governance, networking, etc. In addition, accessibility can promote activities to improve access to and quality of transport and telecommunications services where these have a clear transnational dimension. Connectivity and accessibility should be considered as a goal which, in a transversal way, might help to reach the objectives of several investment priorities.

- Territorial cohesion

In each targeted territory (urban, coastal, islands and remote areas) projects will have to mobilise relevant stakeholders of sectors and institutions from the project intervention field. Approaches must be 'integrated', so that the result would not be isolated proposals working on limited aspects of tourism, energy or

transports for example, but a coordination effort insisting on the contribution of these domains to the sustainable development of territories (taking into account available means, economic perspectives, on-going public policies, conflict of use, environmental constraints, etc.). Partners will have to explore how to make relevant actors from environment protection, tourism, transport, etc. work together. With this approach, transnational cooperation will contribute to develop strategic planning aspects.

The transnational dimension of the operations is a decisive aspect of the Balkan-Mediterranean 2014-2020 transnational cooperation programme. It will be evaluated during the selection process of the applications and during the selected projects' implementation. Special attention will be given to the scope of the applications, to their objectives and to the partnerships' synthesis in order to make sure that they are not merely an aggregate of independent actions but represent genuine transnational cooperation partnerships of a real transnational added-value. The operations must allow carrying out complementary activities associating partners from different countries. They must bring solutions to identified common challenges which could not be solved without a transnational approach.

Overall, the projects cannot be limited to studies or exchange of experience which only aim to produce or to exchange information and knowledge without concrete applications. The projects must have visible results or a measurable effect on the socio economic sector, on public policies, in certain activities, institutions and management or cooperating methods. The achievements and effects of the projects must be sustainable in order not to be limited to the period of provision of the European funding. The main aim is to promote synergies and to avoid the multiplication of isolated initiatives.

Priority Axis 3: ' Technical Assistance'

Priority Axis 3 is dedicated to BALKAN-MEDITERRANEAN programme related managerial actions. "Technical Assistance" is a tool for the enhancement of the programme management. Of course proper management and programme implementation enhances the efficiency of the relevant actions. In that sense Priority Axis 3 "Technical Assistance" can be seen as an horizontal action too.

3.3 BALKAN-MEDITERRANEAN 2014-2020 PROGRAMME LEGAL FRAMEWORK

The following relevant documents are taken into account in this project:

- COM(2010) 2020 final: COMMUNICATION FROM THE COMMISSION EUROPE 2020: A strategy for smart, sustainable and inclusive growth.

- REGULATION (EU) No 1303/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL: Common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and repealing Regulation (EC) No 1083/2006.
- REGULATION (EU) No 1301/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on specific provisions concerning the European Regional Development Fund and the "Investment for growth and jobs goal" and repealing Regulation (EC) No 1080/2006.
- REGULATION (EU) No 1299/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on specific provisions for the support from the European Regional Development Fund to the European Territorial Cooperation Goal.
- Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and Programmes on the environment.
- Ist, 2nd and 3rd Circular for the Design and Drafting of Development Programmes for the Period 2014-2020 of EYSSAAP of the Ministry of Development, Comp. and Shipping. (http://www.espa.er/elibrary/12 1st Egkyklios sxediasmou2014 20.pdf)
- Draft template and guidelines for the content of the cooperation Programme by EU COM.
- EC Guidance document on monitoring and evaluation of European Cohesion Policy, Draft April 2013.
- Evalsed guide on the evaluation of socio-economic development.
- Draft report of the follow-up exercise to the ex-post evaluation of INTERREG III.
- INTERACT Handbook: Practical Handbook for Ongoing Evaluation of Territorial Cooperation Programmes.

The basic features of most relevant BALKAN-MEDITERRANEAN 2014-2020 legal framework are presented in Appendix II:

3.4 BALKAN- MEDITERRANEAN 2014-2020 PROGRAMME ENVIRONMENTAL LEGAL FRAMEWORK

Among the main challenges facing regions in the EU are climate change and its impact, environmental degradation, biodiversity loss and unsustainable use of natural resources. Mitigating climate change and improving resource efficiency, notably by limiting greenhouse gas emissions and adapting to the consequences, have become key priorities of the EU. As a result, the White Paper on adaptation to climate change highlights the role of environmental capacity, green infrastructure and ecosystem services in adaptation, the recognition of regional and urban-rural differences, and the need for more strategic, long-

term spatial planning and regional development. In addition, there is a need for cost-benefit analysis of public investment to consider using an ecosystem-based approach for climate change adaptation and mitigation (especially in building green infrastructure).

Measures to encourage the production of renewable energy, energy efficiency and water treatment feature prominently among the interventions funded under Cohesion Policy. However, there are major differences between regions as regards the scope for action and the likely consequences of climate change.

The main political driving force for improving the quality of the environment and human health is the EU Treaty, and body of EU legislation adopted under it, which must be implemented by Member States. EU environmental policy is pursued through Action Programmes, the 6th one covering the period 2002-2012, the aim being to further the EU Sustainable Development Strategy (SDS). It covers a wide range of activities ranging from protecting ecosystems and biodiversity to improving water supply and treatment and reducing noise pollution. It aims to reduce environmental disparities in the EU, which directly contributes to cohesion in that it will make lagging areas more attractive as well as healthier places to live and work.

Natura 2000 is a good example of a policy with a strong spatial dimension. It is a EU-wide network of nature protection areas established to assure the long-term survival of Europe's most valuable and threatened species and habitats. Natura 2000 is not a system of strict nature reserves where all human activities are excluded. Whereas the network certainly includes nature reserves, most of the land continues to be privately owned and the emphasis is on ensuring that future management is sustainable, both ecologically and economically.

Framework Directives, moreover, require public authorities to draw up plans for management of water, flood risk, waste and air quality in cities as well as marine management to achieve a set of environmental objectives, so encouraging the formulation of integrated development strategies for particular areas. River basin management plans, for example, may lead to better coordination of their use by agriculture, tourism, shipping, hydropower and so on, while those for air quality might lead to the development of public transport, more green spaces and bicycle lanes.
Up until now, the EU biodiversity policy was driven by the EU 2010 target — to halt biodiversity loss in the EU by 2010 — set by the Heads of State in 2001. The EU Biodiversity Action Plan was put in place in 2006 to accelerate progress towards this target and took an integration approach. For the period post-2010, the Environment Council on 15 March 2010 agreed a new vision for 2050 and target for 2020 for biodiversity,

halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as it is feasible, while stepping up the EU contribution to averting global biodiversity loss.
In addition, there are plans for a new strategy for the prevention of natural and man-made disasters, which involve heavy costs for some regions (total losses from natural disasters are estimated to amount to EUR 112 billion over the period 1998-2008 and to have led to 98 000 deaths).

The following relevant basic environmental legislation is taken into account in this project:

General – Sustainable Development

- 7th Environmental Action Programme
- EUROPE 2020 Strategy
- EU Sustainable Development Strategy

Water Issues

- EU Water Framework Directive (2000/60/EC)
- EU Floods Directive (2007/60/EC)
- EU Nitrates Directive (91/676/EEC)
- EU Urban Waste Water Directive (91/271/EEC)

Solid Waste Issues

- EU Waste Framework Directive (2008/98/EC)

Soil Issues.

- Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670)
- Soil Thematic Strategy (COM (2006) 231)
- Proposal for a Soil Framework Directive (COM (2006) 232)
- UN Convention to Combat Desertification
- Soil Thematic Strategy (COM (2006) 231)

Air Quality Issues

- EU Directive on ambient air quality and cleaner air for Europe (2008/50/EC)
- Thematic Strategy on Air Pollution (COM (2005) 446)

Climate Change Issues

- EU Strategy on Climate Change Winning the battle against global climate change" (COM (2005) 35)
- European Framework on Climate Change and Energy (Green Book-COM(2013)169)
- Kyoto II on basis of UN Kyoto Protocol on Climate Change 1998
- UN and EU Strategy for adaptation to the climate change UNFCCC

Energy Efficiency Issues

- EU Energy Efficiency (2012/27/EC) and 2010/31/EU
- Directive 2009/28/EU on the Promotion of Renewable Energy Use
- Energy Road-Map for 2050 (White Bible)

Public Health Issues

- EU Environmental Noise Directive (END) (2002/49/EC)
- EU Health for Growth Programme (2014-2020) (COM (2011) 709)
- EU Health Strategy Together for Health (2008-2013)8
- WHO Parma Declaration on Environment and Health2010

Biodiversity-Fauna-Flora Issues

- Habitats Directive (92/43/EEC)
- EU 2020 Biodiversity Strategy
- UN Convention on Biological Diversity
- EU Birds Directive (2009/147/EC)
- IUCN Global Species Programme

Cultural Heritage Issues

- UNESCO World Cultural and Natural Heritage Convention 1972

Landscape Issues

- European Landscape Convention 2000
- European Landscape Convention 2004
- EU Thematic Strategy on the Urban Environment (COM (2005) 718)

Marine Pollution Issues

- EU_Marine Strategy Framework.
- Mediterranean Action Plan for the Barcelona Convention
- EU Maritime strategy for the Adriatic and Ionian Sea Basins
- Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (1996)
- Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea Adopted in Sofia, Bulgaria, 17 April 2009.
- EU Directive on safety of offshore oil and gas operations (2013/30/EU).
- EC Marine Strategy Directive 2008/56/EC
- 2008 PROTOCOL ON INTEGRATED COASTAL ZONE MANAGEMENT IN THE MEDITERRANEAN

The basic features of most relevant environmental legislation are presented in Appendix II:

3.5 RELEVANCE TO EU STRATEGY

The following table shows the Environmental Aspects/issues relevant for the Programme-Applicable Legislation and European environmental objectives and targets of the legal framework.

Table 1. BALKAN-MEDITERRANEAN 2014-2020- Environmental Aspects/issues relevant for the Programme-Applicable Legislation and European environmental objectives/targets of the legal framework.

Environmental Aspects/issues relevant for the Programme / Applicable Legislation	**European environmental objectives/targets of the legal framework**
General – Sustainable Development • 7th Environmental Action Programme • EUROPE 2020 Strategy • EU Sustainable Development Strategy	EUROPE 2020 Targets 1. Employment 75% of the 20-64 year-olds to be employed 2. R&D 3% of the EU's GDP to be invested in R&D 3. Climate change and energy sustainability Greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990 20% of energy from renewables 20% increase in energy efficiency 4. Education Reducing the rates of early school leaving below 10% At least 40% of 30-34–year-olds completing third level education 5. Fighting poverty and social exclusion At least 20 million fewer people in or at risk of poverty and social exclusion
Water Issues • EU Water Framework Directive (2000/60/EC) • EU Floods Directive (2007/60/EC) • EU Nitrates Directive (91/676/EEC)	The WFD provides a framework for water protection and management in the EU (Directive 2000/60/EC). Under its implementation, Member States must first identify and analyse European waters, by individual river basin and district. They shall then adopt management plans and Programmes of measures to protect water bodies in all European river basins. The adoption of the WFD has completed earlier EU water policies that are still in place, such as those concerning urban wastewater or bathing water.

• EU Urban Waste Water Directive (91/271/EEC)	In 2012, the Commission published the communication A Blueprint to Safeguard Europe's Water Resources (COM(2012) 673). It focuses on policy actions that can help improve implementation of current water legislation, and on the integration of water policy objectives into other policies. The Blueprint enhances water policies related to water quantity and water resource efficiency for sustainable water management in the timeframe of the EU's 2020 Strategy up to 2050. Besides the WFD and the Blueprint, four water directives contribute to measures ensuring the good status of Europe's waters (the Urban Waste Water Directive (91/271/EEC), the Bathing Water Directive (2006/7/EC), the Nitrates Directive (91/676/EEC) and the Drinking Water Directive (98/83/EC). The Floods Directive (2007/60/EC), which aims to foster flood risk management plans, also significantly enhances the WFD objectives.
Solid Waste Issues • EU Waste Framework Directive (2008/98/EC)	Directive 2008/98/EC sets the basic concepts and definitions related to waste management, such as definitions of waste, recycling, and recovery. It explains when waste ceases to be waste and becomes a secondary raw material (so called end-of-waste criteria), and how to distinguish between waste and by-products. The Directive lays down some basic waste management principles: it requires that waste be managed without endangering human health and harming the environment, and in particular without risk to water, air, soil, plants or animals, without causing a nuisance through noise or odours, and without adversely affecting the countryside or places of special interest.
Soil Issues. • Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670) • Soil Thematic Strategy (COM (2006) 231) • Proposal for a Soil Framework Directive (COM (2006) 232) • UN Convention to Combat Desertification	Different EU policies (for instance on water, waste, industrial pollution prevention, nature protection, pesticides, agriculture) are contributing to soil protection. But as these policies have other aims and other scopes of action, they are not sufficient to ensure an adequate level of protection for all soil in Europe. The communication of the commission (COM (2006) 231) describes the thematic strategy regarding soils protection. The overall objective is protection and sustainable use of soil, based on the following guiding principles: - Preventing further soil degradation and preserving its functions; - Restoring degraded soils to a level of functionality consistent at least with current and intended use, thus also considering the cost implications of the Restoration of soil. To achieve these objectives, action is required at different levels – local, national and European. Action at European level is a necessary addition to the action by Member States
Air Quality Issues • EU Directive on ambient air quality and	This legislation has established health-based standards and objectives for a number of air pollutants and includes:

cleaner air for Europe (2008/50/EC) • Thematic Strategy on Air Pollution (COM (2005) 446)	The Air Quality Framework Directive (96/62/EC). This describes the basic principles concerning the assessment and management of air quality in the Member States. The Directive also lists the pollutants for which air quality standards and objectives have been developed and specified in subsequent legislation The 'Exchange of Information' Decision, which establishes a reciprocal exchange of information and data from networks and individual stations measuring ambient air pollution within the EU Member States. The thematic Strategy on Air Pollution (COM (2005) 446): Compared with the situation in 2000, the Strategy sets specific long term objectives (for 2020): - 47% reduction in loss of life expectancy as a result of exposure to particulate matter; - 10% reduction in acute mortalities from exposure to ozone; - Reduction in excess acid deposition of 74% and 39% in forest areas and surface freshwater areas respectively; - 43% reduction in areas or ecosystems exposed to eutrophication. The strategy is completed by the EU's new air quality directive: the Directive on Ambient Air Quality and Cleaner Air for Europe is one of the key measures in place to address air pollution under the Thematic Strategy on Air Pollution. It is the first EU directive to include limits on ambient concentrations of PM2.5 (fine particulate matter). It also consolidates various existing pieces of air quality legislation into a single directive. Governments had been given two years (as from June 11, 2008) to bring their legislation in line with the provisions of the Directive.
Climate Change Issues • EU Strategy on Climate Change Winning the battle against global climate change" (COM (2005) 35) • European Framework on Climate Change and Energy (Green Book-COM (2013)169) Kyoto II on basis of UN Kyoto Protocol on Climate Change 1998 • UN and EU Strategy for adaptation to the climate change UNFCCC	The threat of climate change is being addressed globally by the United Nations Framework Convention on Climate Change (UNFCCC). The long-term objective is to stabilise atmospheric greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference wit h the climate system. The UNFCCC's Kyoto Protocol sets binding emission targets for developed countries that have ratified it, such as the EU Member States. It is a first step towards achieving more substantial global emission reductions. A EU Strategy on adaptation to climate change (COM(2013) 216) The overall aim of the EU Adaptation Strategy is to contribute to a more climate-resilient Europe. This means enhancing the preparedness and capacity to respond to the impacts of climate change at local, regional, national and EU levels, developing a coherent approach and improving coordination.
Energy Efficiency Issues • EU Energy Efficiency (2012/27/EC) and 2010/31/EU • Directive 2009/28/EU on the Promotion of	This Directive establishes a common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the Union's 2020 20 % headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date. All EU-28 countries are thus required to use energy more efficiently at all stages of the energy chain – from the

Renewable Energy Use • Energy Road-Map for 2050 (White Bible)	transformation of energy and its distribution to its final consumption. The new Directive will help remove barriers and overcome market failures that impede efficiency in the supply and use of energy and provides for the establishment of indicative national energy efficiency targets for 2020.
Public Health Issues • EU Environmental Noise Directive (END) (2002/49/EC) • EU Health for Growth Programme (2014-2020) (COM (2011) 709) • EU Health Strategy Together for Health (2008- 2013) • WHO Parma Declaration on Environment and Health 2010	The END aims to "define a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to the exposure to environmental noise". For that purpose several actions are to be progressively implemented. It furthermore aims at providing a basis for developing EU measures to reduce noise emitted by major sources, in particular road and rail vehicles and infrastructure, aircraft, outdoor and industrial equipment and mobile machinery. The Health for Growth Programme (2014-2020) is the third multi-annual Programme of European Union (EU) action. It helps/supports Member States in order to: - Undertake the necessary reforms to achieve innovative and sustainable health systems; - Improve access to better and safer health care for citizens; - Promote good health of European citizens and prevent diseases; - Protect European citizens from cross-border threats.
Biodiversity-Fauna-Flora Issues • Habitats Directive (92/43/EEC) • EU 2020 Biodiversity Strategy • UN Convention on Biological Diversity • EU Birds Directive (2009/147/EC) • IUCN Global Species Programme	In its 2001 Strategy for Sustainable Development, the EU sets itself the target to halt the loss of biodiversity and restore habitats and natural systems by 2010 The European Commission's 2006 Biodiversity Communication has provided the main policy framework up to 2010. EU nature conservation policy is based on two main pieces of legislation: • The Birds Directive • The Habitats Directive Both directives provide the basis for the Natura 2000 network, a network of nature reserves which extends across the Union to safeguard species and habitats of Special European interest. EU nature conservation policy benefits from a specific financial instrument, the LIFE-Nature fund. In May 2011, the European Commission adopted a new strategy that lays down the framework for EU action over the next ten years in order to meet the 2020 biodiversity headline target set by EU leaders in March 2010 (COM (2011) 244). According to the strategy and by 2050, European Union biodiversity and the ecosystem services it provides – its natural capital – should be protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human well-being and economic prosperity, and so that catastrophic changes

	caused by the loss of biodiversity are avoided. Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU Contribution to averting global biodiversity loss is priority objectives. Specific objectives: - Full implementation of EU nature legislation to protect biodiversity - Better protection for ecosystems - More sustainable agriculture and forestry - Better management of fish stocks - Tighter controls on invasive alien species - A bigger EU contribution to averting global biodiversity loss
Cultural Heritage Issues • UNESCO World Cultural and Natural Heritage Convention 1972 • Treaty of Lisbon 2007	Treaty of Lisbon 2007 Article 3.3. "(…) The Union shall respect its rich cultural and linguistic diversity, and shall ensure that Europe's cultural heritage is safeguarded and enhanced".
Landscape Issues • European Landscape Convention 2000 • European Landscape Convention 2004 • EU Thematic Strategy on the Urban Environment (COM (2005) 718)	The European Landscape Convention, also known as the Florence Convention, is the first international treaty to be exclusively devoted to all aspects of European landscape. It applies to the entire territory of the Parties and covers natural, rural, urban and peri-urban areas. It concerns landscapes that might be considered outstanding as well as everyday or degraded landscapes. The Convention is aimed at: the protection, management and planning of all landscapes and raising awareness of the value of a living landscape
Marine Pollution Issues • EU_Marine Strategy Framework. Mediterranean Action Plan for the Barcelona Convention • EU Maritime strategy for the Adriatic and Ionian Sea Basins • Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (1996) Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea Adopted in	Solving environmental problems of Europe's coasts and seas requires a policy response that operates across policy domains related to water, nature, pollution, fisheries, climate change and spatial planning. Historically these have been considered separate policy domains, but with the adoption of the Marine Strategy Framework Directive (MSFD) in 2008, an integrated response is being pursued; the management approach considers the entire ecosystem and sets the objective of achieving good environmental status for many specific environmental aspects. The MSFD is supported by the Water Framework Directive (WFD), which regulates ecological status in coastal and transitional waters by considering nutrient, chemical and hydro morphological pressure and by the Habitats and Birds directives that set conservation objectives for some marine and coastal habitats and species. Growth of the maritime, agriculture and tourism sectors is expected to continue; an important future objective for the MSFD will be to ensure that this growth is environmentally sustainable, via management strategies.

Sofia, Bulgaria, 17 April 2009. • EU Directive on safety of offshore oil and gas operations (2013/30/EU). • EC Marine Strategy Directive 2008/56/EC • 2008 PROTOCOL ON INTEGRATED COASTAL ZONE MANAGEMENT IN THE MEDITERRANEAN	Such strategies can be supported through the implementation of planning principles in line with Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP).

The following table shows the Environmental Aspects/issues relevant for the Programme-Applicable Legislation and How the Programme environmental strategy takes into account these Issues, per thematic objective (TO)

Table 2. BALKAN-MEDITERRANEAN 2014-2020- Environmental issues relevant for the Programme-Applicable Legislation and How the Programme environmental strategy takes into account these Issues, per thematic objective (TO).

Environmental issues relevant for the Programme / Applicable Legislation	**How the Programme environmental strategy takes into account these Issues, per thematic objective (TO)**		
Priority Axes	**ENTREPRENEURSHIP**	**ENVIRONMENT**	**HORIZONTAL OBJ.**
BALCAN-MED Specific Objectives	**TO3**	**TO6**	
General – Sustainable Development • 7th Environmental Action Programme • EUROPE 2020 Strategy • EU Sustainable Development Strategy			
Water Issues • EU Water Framework Directive (2000/60/EC) • EU Floods Directive (2007/60/EC) • EU Nitrates Directive (91/676/EEC) • EU Urban Waste Water Directive (91/271/EEC)			
Solid Waste Issues • EU Waste Framework Directive (2008/98/EC)			
Soil Issues. • Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670) • Soil Thematic Strategy (COM (2006) 231) • Proposal for a Soil Framework Directive (COM (2006) 232) • UN Convention to Combat Desertification • Soil Thematic Strategy (COM (2006) 231)			
Air Quality Issues • EU Directive on ambient air quality and cleaner air for			

Europe (2008/50/EC) • Thematic Strategy on Air Pollution (COM (2005) 446)			
Climate Change Issues • EU Strategy on Climate Change Winning the battle against global climate change" (COM (2005) 35) • European Framework on Climate Change and Energy (Green Book- COM(2013)169) • Kyoto II on basis of UN Kyoto Protocol on Climate Change 1998			
Energy Efficiency Issues • EU Energy Efficiency (2012/27/EC)			
Public Health Issues • EU Environmental Noise Directive (END) (2002/49/EC) • EU Health for Growth Programme (2014-2020) (COM (2011) 709) • EU Health Strategy Together for Health (2008-2013)8 • WHO Parma Declaration on Environment and Health2010			
Biodiversity-Fauna-Flora Issues • Habitats Directive (92/43/EEC) • EU 2020 Biodiversity Strategy • UN Convention on Biological Diversity • EU Birds Directive (2009/147/EC) • IUCN Global Species Programme			
Cultural Heritage Issues • UNESCO World Cultural and Natural Heritage Convention 1972 • Treaty of Lisbon 2007			
Landscape Issues • European Landscape Convention 2000 • European Landscape Convention 2004 • EU Thematic Strategy on the Urban Environment (COM			

(2005) 718)			
Marine Pollution Issues • EU_Marine Strategy Framework. • Mediterranean Action Plan for the Barcelona Convention • EU Maritime strategy for the Adriatic and Ionian Sea Basins • Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (1996) • Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea Adopted in Sofia, Bulgaria, 17 April 2009. • EU Directive on safety of offshore oil and gas operations (2013/30/EU).			

LEGEND	Targeted potential Impact	Non-targeted potential Impact	No targeting

3.6 POTENTIAL ENVIRONMENTAL CRITERIA FOR BALKAN - MEDITERRANEAN PROGRAMME ENVIRONMENTAL IMPACTS ASSESSMENT

For the assessment of the BALKAN-MEDITERRANEAN 2014-2020 Programme potential impact on the environment the analysis of the impacts on the environment is based

- development of a Environmental Thematic Targets (ETT) per Environmental Aspect/Issue relevant to the programme
- on a synoptic grid of questions; the grid will show for each action that effects can turn out to be positive or negative for the environment. The question cover the spectrum of the environment aspect mentioned at the directive and compatible to the environmental legislation.

Based on the above methodology, the environmental criteria are presented below.

Table 3. Environmental Questions, criteria for BALKAN- MEDITERRANEAN 2014-2020 potential Environmental impacts assessment

Environmental issues relevant for the Programme / Applicable Legislation/Environmental Targets	**Environmental Questions, criteria for BALKAN-MEDITERRANEAN 2014-2020 potential Environmental impacts assessment**
General – Sustainable Development • 7th Environmental Action Programme • EUROPE 2020 Strategy • EU Sustainable Development Strategy	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving EUROPE 2020 Targets? Implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact the need for networks for transport, energy and the relative construction/COOPERATION cost? • Impact balanced city-country growth? • Impact regional accessibility? • Impact on green or blue economy? • Impact social cohesion and protection of vulnerable part of population? • Impact the abundance of population in semimountaineous-mountaineous-rural regions? • Impact access to social goods?
BALKAN- MEDITERRANEAN2014-2020 Thematic Target **BALKAN- MEDITERRANEAN 2014-2020 Thematic Target** **" Contribution to General Sustainable Development Issues based on EU strategies ".** **REMARK** EUROPE 2020 is a basic rationale for the Programme BALKAN-MEDITERRANEAN 2014-2020. Therefore implementation of BALKAN-MEDITERRANEAN 2014-2020 measures will enhance achieving EUROPE 2020 Targets	

Water Issues • EU Water Framework Directive (2000/60/EC) • EU Floods Directive (2007/60/EC) • EU Nitrates Directive (91/676/EEC) • EU Urban Waste Water Directive (91/271/EEC) ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target** **" Contribution to Water bodies Protection and improvement of their quantitative and qualitative characteristic based on EU legal strategies ".**	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving legislation target, of • WFD targets • Urban Waste Water Directive (91/271/EEC), targets • Bathing Water Directive (2006/7/EC) targets • Nitrates Directive (91/676/EEC) targets • Drinking Water Directive (98/83/EC) targets • Floods Directive (2007/60/EC) targets. Implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact water erosion processes? • Impact surface or groundwaterr withdrawals? • Impact on water management?
Solid Waste Issues • EU Waste Framework Directive (2008/98/EC) ⇩ **BALKAN- MEDITERRANEAN 2014-2020 Thematic Target** **" Contribution to efficient Solid Waste Management based on EU legal strategies ".**	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving the targets of EU Waste Framework Directive (2008/98/EC) How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact • Waste production (household and industrial), their composition or hazardous characteristics? • Waste recovery (household and industrial)?
Soil Issues. • Thematic Strategy on the Sustainable Use of Natural Resources (COM (2005) 670) • Soil Thematic Strategy (COM (2006) 231) • Proposal for a Soil Framework Directive (COM (2006) 232) • UN Convention to Combat Desertification • Soil Thematic Strategy (COM (2006) 231) ⇩	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving the targets of EU Soil Thematic Strategy How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact • Loss of critical for economy or habitat land? • On soil pollution due to solid wastes or agricultural residues? • Soil decontamination/remediation?

BALKAN- MEDITERRANEAN 2014-2020 Thematic Target **" Contribution to Soil protection from pollution and conservation of productive land based on EU legal strategies ".**	
Air Quality Issues • EU Directive on ambient air quality and cleaner air for Europe (2008/50/EC) • Thematic Strategy on Air Pollution (COM (2005) 446) ⇩	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact atmospheric pollution?
BALKAN-MEDITERRANEAN 2014-2020 Thematic Target **" Contribution to improvement of air quality based on EU legal strategies ".**	
Climate Change Issues • EU Strategy on Climate Change Winning the battle against global climate change" (COM (2005) 35) • European Framework on Climate Change and Energy (Green Book-COM (2013)169) • Kyoto II on basis of UN Kyoto Protocol on ⇩ Climate Change 1998	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact on achieving the legislative GHG reduction targets? • Impact emission of GHG? • Improve the resilience of ecosystems to climate change? • Impact on the possibilities of extreme weather phenomena (heat waves, flooding) • Impact on the coastal erosion?
BALKAN-MEDITERRANEAN 2014-2020 Thematic Target **" Participation to National and International Effort to adaptation and combat of Climate Change".**	
Energy Efficiency Issues • EU Energy Efficiency (2012/27/EC) ⇩	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact on achieving the legislative renewable energy penetration and energy efficiency targets? • Increase the share a more efficient, greener, more competitive and low-carbon economy • Impact energy efficiency in the productive sector?
BALKAN-MEDITERRANEAN 2014-2020 Thematic Target **" Contribution to Energy Efficiency Issues based on EU strategies ".**	

Public Health Issues • EU Environmental Noise Directive (END) (2002/49/EC) • EU Health for Growth Programme (2014-2020) (COM (2011) 709) • EU Health Strategy Together for Health (2008-2013) • WHO Parma Declaration on Environment and Health 2010 ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target** **" Contribution to protection of Public Health based on EU and International legal strategies ".**	Implementation of BALKAN-MEDITERRANEAN 2014-2020 will enhance or not achieving the targets of Health for Growth Programme (2014-2020). How may Implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact the atmospheric environment? • Impact the acoustic environment? • Impact management and resilience to natural hazards? • Impact management and resilience to industrial risks? • Impact odour pollution? • Impact accessibility to health services?
Biodiversity-Fauna-Flora Issues • Habitats Directive (92/43/EEC) • EU 2020 Biodiversity Strategy • UN Conventionon Biological Diversity • EU Birds Directive (2009/147/EC) • IUCN Global Species Programme ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target** **" To halt the deterioration in the status of all species and habitats covered by EU nature legislation and achieve a significant improvement in their status".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 • Impact the surface and cohesion of protected areas? • Impact the protection levels and pressures of protected areas and forests? • Impact the loss of biodiversity? • Impact the ecological coherence of territories? • Impact habitats (terrestrial and aquatic)? • Impact the preservation of rare endemic and protected species?
Cultural Heritage Issues • UNESCO World Cultural and Natural Heritage Convention 1972 • Treaty of Lisbon 2007 ⇩ **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target** **" Contribution to landscapes protection and promotion of natural and cultural monuments/sites based on EU and International legal strategies ".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact landscapes, preservation and promotion of natural and cultural monuments/sites?

Landscape Issues • European Landscape Convention 2000 • European Landscape Convention 2004 • EU Thematic Strategy on the Urban Environment (COM (2005) 718)  **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target** **" Contribution to landscapes protection and promotion of natural and cultural monuments/sites based on EU and International legal strategies ".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact landscapes, preservation and promotion of natural and cultural monuments/sites?
Population Material Asset Management Issues  **BALKAN-MEDITERRANEAN 2014-2020 Thematic Target** **" Protection of Public Properties and Social Cohesion".**	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact • Loss of critical for economy or habitat land • Land Prices, and land ownership? • Standards of living and labour of the citizen? • Regional accessibility? • Economic growth? • Business compositeness?
Marine Pollution Issues • EU_Marine Strategy Framework. • Mediterranean Action Plan for the Barcelona Convention • EU Maritime strategy for the Adriatic and Ionian Sea Basins • Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (1996) • Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea Adopted in Sofia, Bulgaria, 17 April 2009. • EU Directive on safety of offshore oil and gas operations (2013/30/EU). 	How may implementation of BALKAN-MEDITERRANEAN 2014-2020 impact • Water quality of transitionnal waters and coastal waters? • Marine water quality? • Commitments for Coastal Zone protection? • Fish recourses?

BALKAN-MEDITERRANEAN 2014-2020 **Thematic Target** **" Contribution to Mediterranean, Adriatic and Baltic Sea Protection and improvement of their quantitative and qualitative characteristic based on EU legal strategies ".**	

4. BALKAN- MEDITERRANEAN. PROGRAMME DESCRIPTION

4.1 BALKAN- MEDITERRANEAN 2014-2020 OVERALL OBJECTIVE OF THE PROGRAMME.

The programme objective is to build on shared territorial assets and promote integrated territorial development and cooperation for a more competitive and sustainable Balkan – Mediterranean area.

To reach this objective the programme builds in local entrepreneurship potential and in natural assets, both supported by a training and capacity building scheme. It is a holistic approach clearly targeting the area's smart and sustainable growth potential, horizontally supported by a comprehensive training scheme to improve labour force skills and motivate inclusive growth. Therefore the programming framework totally embeds the EU 2020 strategy for smart, sustainable and inclusive growth.

The programme is expected to have a significant impact on the area, enhancing regional cooperation through continued EU support as well as promoting further EU integration. Transnational cooperation may contribute to improve regional and territorial practices. Hence, the Balkan – Mediterranean 2014 – 2020 transnational cooperation programme (TNCP) will grant a specific attention to the coherence, complementarity and transfer of experiences and practices with regional and national programmes that can feed transnational actions and benefit of their results. For 2014-2020, the transfer of experience between actors, territories and programme is considered as a major goal for the Balkan-Mediterranean Programme.

This will be done taking into account the potential and challenges of specific sectors related to the blue and green growth. Moreover, the Programme shares large parts of its cooperation area (Greece & Albania) with the EU strategy for the Adriatic and Ionian Region (EUSAIR) and with the Danube macro-regional strategy (Bulgaria). Therefore, the Programme may contribute to the implementation of the Action Plan of the above-mentioned Strategies; synergies and coordination activities between Programmes are envisaged on the different priorities axes and investment priorities.

Taking into account the aim to mobilise the growth potential of the participating countries and the region as a whole, the following added value fields have been identified and confirmed through the public consultation process:

- Geography: as the programme addresses actors across from all over the participating countries' areas, transnational cooperation partnerships can be built from all over the five (5) participating countries and not just from a limited number of border regions.
- Diversity: the programme covers internal and external EU borders, both terrestrial and maritime. Consequently, the programme can unfold both strands of the EU 2020 strategy, terrestrial and maritime pillars, triggering green and blue growth accordingly.
- Growth drivers' range: as a result of its extended geography and diversity the programme addresses a wider pool of growth drivers sharing common challenges that can accordingly be addressed by a wider pool of methods and practices.
- Critical mass: transnational territorial cooperation is of particular value as transnational cooperation partnerships can secure economies of scale and critical mass, enhancing mobilisation capacity and innovation potential, both key competitiveness issues to overcome markets' fragmentation.
- Policy learning and governance: learning through cooperation is an effective mechanism for spreading know-how and enhance capacities and skills. Focused transnational cooperation can improve governance delivery in both public and corporate sectors.
- Building structures for further cooperation: structures (administrative, institutional, social and private) set up in cooperation programmes facilitate continuity and sustainability of lessons learned while at the same time they are setting the basis for further and more focused cooperation schemes.

Taking into account the programme's territorial dynamics as well as limited financial resources, a strong thematic focus has been promoted taking also advantage of the possibility to combine investment priorities from different thematic objectives in order to increase impact, effectiveness and coherence within each priority challenge tackled by the respective priority axis. Thus the programme develops a leverage effect on regional development by investing in the holistic capacity to boost entrepreneurship, to protect the environment and to promote the efficient use of resources.

4.2 BALKAN- MEDITERRANEAN 2014-2020 PROGRAMME PRIORITIES.

Two priority axes have been defined in response to the identified transnational key challenges and opportunities above. A third one concerns the Technical Assistance. They are briefly introduced in the following section.

Priority 1: 'Entrepreneurship and Innovation'

Priority 1 is dedicated to actions that will build the capacity and improve the competitiveness of existing SMEs, while promoting and supporting the emergence of new SMEs in key economic sectors such as tourism as well as with a spatial focus (rural and remote areas). The Priority will encourage cooperation of SMEs within and between countries through the creation of SME networks, clusters, etc. that are outward looking and therefore promote their internationalisation.

A special focus of this Priority will be the enhancement of the capacity of SMEs through the implementation of actions related to education and training. Such actions will enable SMEs to acquire the necessary skills/tools to boost their competitiveness, grow towards other markets and introduce innovation in all phases of their business cycle. By linking education and businesses, this Priority will also aim to transpose innovation into business practices and processes. Synergies will also be sought with opportunities provided by Cohesion Policy, in particular via regional innovation strategies involving SMEs and other territorial cooperation programmes.

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Priority 2: 'Environment'

Priority Axis 2 aims at strengthening integrated joint approaches to preserve and manage the rich natural and cultural heritage in the region as a prerequisite and a fundamental basis for sustainable development and inclusive growth. Among others, the priority will also support the development of the region as a tourist destination, fostering the "Balkan – Mediterranean" identity. Balance between tourism, environmental protection and economic growth will be sought. The programme will bring together different stakeholders dealing with the protection of natural and cultural heritage. The development and implementation of common strategies and approaches will foster for the protection and sustainable use of natural and cultural heritage. Development of common brands is also creating a favourable environment for sustainable tourism practices, which are based on the valorisation of natural and cultural heritage. The priority will encourage networking and partnerships among central, regional and local administrations, as well as non-governmental organisations, business support centres, tourist agencies, other actors. The programme area has a potential to strengthen common approaches to foster green and blue growth opportunities, promote classified sites and areas of community importance (Natura 2000) develop theme paths and joint products, all guided by a shared policy framework.

In addition, implementation of innovative technologies to protect the environment and guarantee resource efficiency will also be in the focus of the priority.

The capacity of local actors to apply innovative approaches in developing the rich environmental potential of the region will be enhanced through joint education and training activities, sharing and implementing of best practices in the field

Horizontal dimensions

Apart from thematic orientation, the Balkan – Mediterranean 2014 – 2020 transnational cooperation programme addresses horizontal thematic aspects highlighted in the EU regulations: sustainable development, equal opportunities and non-discrimination, equality between men and women.
Besides the thematic concentration and the choice of Thematic Objectives, specific issues will be addressed in a cross-cutting way in the different investment priorities of the programme contributing to the overall objectives of the Programme:

- Social cohesion

In different fields of intervention, a positive attention will be paid to projects involving partners or taking measures that have positive effects on social cohesion. This is especially the case when involving social enterprises or the implementing actions improving the conditions of target groups confronted with economic and social integration difficulties. Additionally, there should be a general effort on reducing unemployment and mitigating the risk of poverty and social exclusion in the Balkan-Mediterranean region and on promoting inclusive growth.

- Connectivity & Accessibility

The promotion of connectivity on the Programme area (including ICT products, services and applications) constitutes a relevant support for socioeconomic development, governance, networking, etc. In addition, accessibility can promote activities to improve access to and quality of transport and telecommunications services where these have a clear transnational dimension. Connectivity and accessibility should be considered as a goal which, in a transversal way, might help to reach the objectives of several investment priorities.

- Territorial cohesion

In each targeted territory (urban, coastal, islands and remote areas) projects will have to mobilise relevant stakeholders of sectors and institutions from the project intervention field. Approaches must be 'integrated', so that the result would not be isolated proposals working on limited aspects of tourism, energy or transports for example, but a coordination effort insisting on the contribution of these domains to the

sustainable development of territories (taking into account available means, economic perspectives, on-going public policies, conflict of use, environmental constraints, etc.). Partners will have to explore how to make relevant actors from environment protection, tourism, transport, etc. work together. With this approach, transnational cooperation will contribute to develop strategic planning aspects.

The transnational dimension of the operations is a decisive aspect of the Balkan-Mediterranean 2014-2020 transnational cooperation programme. It will be evaluated during the selection process of the applications and during the selected projects' implementation. Special attention will be given to the scope of the applications, to their objectives and to the partnerships' synthesis in order to make sure that they are not merely an aggregate of independent actions but represent genuine transnational cooperation partnerships of a real transnational added-value. The operations must allow carrying out complementary activities associating partners from different countries. They must bring solutions to identified common challenges which could not be solved without a transnational approach.

Overall, the projects cannot be limited to studies or exchange of experience which only aim to produce or to exchange information and knowledge without concrete applications. The projects must have visible results or a measurable effect on the socio economic sector, on public policies, in certain activities, institutions and management or cooperating methods. The achievements and effects of the projects must be sustainable in order not to be limited to the period of provision of the European funding. The main aim is to promote synergies and to avoid the multiplication of isolated initiatives.

Priority Axis 3: ' Technical Assistance'

Priority Axis 3 is dedicated to BALKAN-MEDITERRANEAN programme related managerial actions. "Technical Assistance" is a tool for the enhancement of the programme management. Of course proper management and programme implementation enhances the efficiency of the relevant actions. In that sense Priority Axis 3 "Technical Assistance" can be seen as an horizontal action too.

4.3 BALKAN- MEDITERRANEAN 2014-2020 A SYNTHETIC OVERVIEW OF THE PROGRAMME.

A synthetic overview of the programme, a justification for the selection of Thematic Objectives and Investment Priorities Two priority axes defined in response to the identified transnational key challenges and opportunities above and concerning the Technical Assistance is presented at the table below.

Table 4. A synthetic overview of the justification for the selection of Thematic Objectives and Investment Priorities

Selected thematic objective	**Selected IP**	**Specific Objective**
PA 1 Entrepreneurship and Innovation		
Thematic Objective 3: 'Enhancing the competitiveness of SMEs'	**3a**: Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators	**SO 1.1**: Promote entrepreneurship and business creation on the basis on new ideas, innovation and new types of business models.
	3d: Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes	**SO 1.2.** Facilitate innovation in business models and allow a maximum number of SMEs to innovate and adjust their business models to the changing socioeconomic and policy/regulatory circumstances.
Thematic Objective 10 Investing in education, training and vocational training for skills and lifelong learning by developing education and training infrastructure	**Additional** Developing and implementing joint education and training systems	**SO 1.3.** Support entrepreneurial learning and knowledge transfer for more competitive SMEs.
PA 2: Environment		
Thematic Objective 6 Preserving and protecting the environment and promoting resource efficiency	**6 c:** Conserving, protecting, promoting and developing natural and cultural heritage	**SO 2.1.** : Maintain biodiversity and natural ecosystems by strengthening networking and management of protected areas, including Natura 2000.

	6 f: Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution	**SO 2.2.** Promote cooperation and networking aiming to introduce innovative technologies for efficient management of the waste sector, the soil and the water sector including adaptation to the Water Framework Directive (EC/60/2000)
Thematic Objective 11 Enhancing institutional capacity of public authorities and stakeholders and efficient public administration through actions to strengthen the institutional capacity and the efficiency of public administrations and public services related to the implementation of the ERDF, and in support of actions under the ESF to strengthen the institutional capacity and the efficiency of public administration		**SO 2.3.** Develop skills for better environmental management and increase governance capacities
PA 3: Technical Assistance		

4.4 BALKAN- MEDITERRANEAN 2014-2020 A SYNTHETIC OVERVIEW OF THE PROGRAMME

The draft budget of BALKAN-MEDITERRANEAN 2014-2020 Programme is presented at the table below.

Table 5. Draft budget of BALKAN-MEDITERRANEAN 2014-2020 Programme**.**

TNCP Balkan - Mediterranean 2014 - 2020 DRAFT Budget (21 July 2014)									
Balkan-Mediterranean PRIORITY AXIS	Fund (ERDF[1], Cohesion Fund, ESF[2]) or, YEI)[3]	EU support	Proportion of total Union support for the operational programme		Thematic Objective	INVESTMENT PRIORITY		Specific Objectives	
PA 1: ENTERPRENEURSHIP & INNOVATION	ERDF	6.480.000 €	36,0%	40,0%	3	3a	Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators	1.1	SO 1.1: Promote entrepreneurship and business creation on the basis on new ideas, innovation and new types of business models
		5.670.000 €		35,0%		3d	Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes	1.2	SO 1.2 : Facilitate innovation in business models and allow a maximum number of SMEs to innovate and adjust their business models to the changing socioeconomic and policy/regulatory circumstances
		4.050.000€		25,0%	10	Add.	Investing in education, training and vocational training for skills and lifelong learning by developing education and training infrastructure (developing and implementing joint education and training systems)	1.3	SO 1.3: Support entrepreneurial learning and knowledge transfer for more competitive SMEs
PA 2: ENVIRONMENT	ERDF	10.260.000€	57,0%	40,0%	6	c	Conserving, protecting, promoting and developing natural and cultural heritage	2.1	SO 2.1: Maintain biodiversity and natural ecosystems by strengthening networking and management of protected areas, including Natura 2000
		8.977.500 €		35,0%		f	Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution	2.2	SO 2.2: Promote cooperation and networking aiming to introduce innovative technologies for efficient management of the waste sector, the soil and the water sector including adaptation to the Water Framework Directive (EC/60/2000)
		6.412.500€		25,0%	11		Enhancing institutional capacity of public authorities and stakeholders and efficient public administration through actions to strengthen the institutional capacity and the efficiency of public administrations and public services related to the implementation of the ERDF, and in support of actions under the ESF to strengthen the institutional capacity and the efficiency of public administration	2.3	SO 2.3: Develop skills for better environmental management and increase governance capacities
PA 3: Technical Assistance	ERDF	3.150.000€	7,0%				Technical Assistance	3.1	Technical Assistance
2		45.000.000€			4	5			
P.A.		Total			T.O.	I.P.			

As the total budget for the years of the Programme period (2014-2020) is expected to be around 45.000.000,00 Euro, the relative range of the activities to be implemented through the Programme is expected to be rather small and in relation to the potential environmental impacts of the programme, no significant potential environmental effects are expected to influence any of the identified environmental aspects negatively

4.5 Priority Axis 1: Entrepreneurship and Innovation.

4.5.1 Justification for the establishment of a priority axis covering more than one thematic objective

Entrepreneurship is a powerful driver of economic growth. The programme area suffers from markets fragmentation and limited labour force skills. Under transnational cooperation opportunities, entrepreneurship can nurture new skills, foster innovation and open up new markets through networks and partnerships. The overarching aim of Priority Axis 1 is to unfold an integrated support to improve competitiveness of existing SMEs, while promoting and supporting the emergence of new SMEs. The Priority will encourage cooperation of SMEs through SMEs' thematic networks, clusters, etc. that are outward looking and promote internationalisation.

To reach a maximum territorial impact on competitiveness, training facility schemes have to be considered to fully support internal spill overs and leverage effects on knowledge and technology transfer.

According to the "Entrepreneurship 2020 Action Plan" of the EU, "investing in entrepreneurship education is one of the highest return investments Europe can make". Adults and young people, who benefit from entrepreneurial learning, develop business knowledge, new skills and attitudes including creativity, initiative, team work, risk assessment and sense of responsibility.

Against the background of the current economic crisis training support for entrepreneurship was identified as crucial in order to maximise the impact and effectiveness of the investment.

A sole thematic focus on SMEs support with no investment in their respective human capital will jeopardize expected results, as monitoring and management are performed by the entrepreneurs. Transnational cooperation partnerships can provide a powerful platform to address entrepreneurship skills along with the SMEs' thematic support; the Priority Axis 1 is set to combine TO 3 and TO 10 securing long-lasting results. It is a holistic investment approach aiming to effectively foster the overall programme area competitiveness and unleash untapped cooperation potential.

4.5.2 Investment priority 3a. Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators.

4.5.2.1 Specific Objective. SO1.1. Promote entrepreneurship and business creation on the basis on new ideas, innovation and new types of business models.

Results that Member states seek to achieve with Programme Support

The Balkan-Mediterranean region is characterized by strong entrepreneurial spirit and diverse economic activity. SMEs and microenterprises in particular, represent a substantial part of all economic sectors in participating countries and though they form more than 60% share of the total value added they suffer from recession and low growth levels, structural markets' weaknesses with respect to unemployment and limited access to financing.

The enhancement of SMEs' capacity is crucial and can be achieved through a comprehensive set of actions linking overall business' support to education and training. The exploitation of new ideas, innovation and new types of business models enables the differentiation of innovation patterns according to the potentials and needs of a specific territory. It is crucial to mobilise internal assets and resources in topics where a country or a region holds a comparative advantage. This covers areas characterised by advanced technologies as well as areas with a non-technological focus such as culture and creative industries, tourism and others.

Therefore, the entrepreneurial challenge is to transpose knowledge and innovation into business practices and processes. This Specific Objective targets the lack of experience to involve the innovations and new business models in economic activity. In this regard, the Programme takes a transnational approach in supporting new business models, ideas and innovations and at the same time enhancing the SMEs' capacity of SMEs by implementing also actions related to education and training in order to enable SMEs acquire the necessary skills/tools to boost their competitiveness. Linking business' support and businesses' training helps to create new business models. Promoting entrepreneurship through clusters and cluster policies, by facilitating the economic exploitation of new ideas will help to overcome strong economic regional disparities prevailing in the region.

The results sought will directly contribute to the establishment of favourable and competitive business environment as a prerequisite for sustainable development. The main result of the planned support activities is to enable local economic operators to contribute more to the national, transnational and EU GDP and create new and better jobs.

The results will build on existing potential of the region and within the EU policies framework will help participating countries to implement working solutions to support new business models and encourage innovations.

Examples of Actions

The actions that are foreseen to be supported under this specific objective will strengthen entrepreneurship and clusters' culture and promote new business model expansion.

Overall, the projects cannot be limited to studies or exchange of experience which only aim to produce or to exchange information and knowledge without concrete applications. The projects must have visible results or a measurable effect on the socioeconomic sector, on public policies, in certain activities, institutions and management or cooperating methods. The achievements and effects of the projects must be sustainable in order not to be limited to the period of provision of the European funding. The main aim is to promote synergies and to avoid the multiplication of isolated initiatives.

Type of actions and expected contribution to the Specific Objective 1.1:
The following list of actions is only an indicative list and can be completed with other relevant actions contributing to the specific objective's goals.

- Knowledge transfer activities, such as workshops and seminars to exchange best practices and ideas to support existing and newly established businesses, including online based;
- Identification and analysis of good practices, mapping the existing tools used for business model innovation, analysing the potential of transfer across sectors and Programme countries;
- Joint market analyses, researches and surveys on the business potential to develop, test and implement innovation products/services and new business models;
- Feasibility studies coupled with pilot applications and tests of practical tools to strengthen competences and encourage entrepreneurship for innovation including social innovation (as e.g. healthcare, social inclusion: minorities, disabled persons, elderly etc.);
- Joint actions to assist fast access to various financial and development instruments supporting SMEs;

- Enhancement and support of business information and centres, including virtual ones, to promote innovative and new business models' applications; joint organisation of promotional activities in identified target markets;.

Main Target Groups

- Umbrella organisations of SMEs
- Development and planning agencies
- Local, regional and national authorities involved in business' management
- Technology transfer centres
- Innovation support networks
- Non-governmental and Civil Society organisations

Guiding Principles for the selection of operations

The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure.

The following guiding principles will be observed when selecting project applications:

Strategic coherence: coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches.

Operational quality: design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must.

Compliance to horizontal principles: coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic.

The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee.

The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals.

4.5.3 Investment priority 3d. Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes.

4.5.3.1 Specific Objective. SO1.2. Facilitate innovation in business models and allow a maximum number of SMEs to innovate and adjust their business models to the changing socioeconomic and policy/regulatory circumstances.

Results that Member states seek to achieve with Programme Support

"Innovation Union" flagship initiative pursues a broad concept of innovation that encompasses not only new or improved products and processes, but also services, new business models, marketing, branding and design methods and new forms of business organisation and collaborative arrangements.

Technologies as such do not have a specific value. Their value is determined by the business models used to bring them to a market.

However, many European enterprises, whether large or small, lack awareness and tools to innovate their business models and strengthen their presence internationally.

The challenge will be to facilitate innovation in business models and allow a maximum number of SMEs to innovate and adjust their business models to the changing economic, social and policy/regulatory circumstances resulting from the implementation of the EU's Europe 2020 Flagship Initiative – Innovation Union.

Expected results will be to:

- advance existing knowledge about business model innovation and create common understanding on business model with a focus on internationalisation;
- strategic re-orientation of cluster policies;
- foster a business friendly environment for growth and jobs;
- increase the attractiveness of the region for innovators;

Examples of Actions

Activities under this specific objective will produce & pilot knowledge on business model innovation which will enhance Balkan-Mediterranean and EU competitiveness in alignment with Europe 2020 addressing this societal challenge: Europe in a changing world - inclusive, innovative and reflective Societies. SMEs, will examine, evaluate and change their business models, adopting solutions that increase their competitiveness, accordingly.

Overall, the projects cannot be limited to studies or exchange of experience which only aim to produce or to exchange information and knowledge without concrete applications. The projects must have visible results or a measurable effect on the socioeconomic sector, on public policies, in certain activities, institutions and management or cooperating methods. The achievements and effects of the projects must be sustainable in order not to be limited to the period of provision of the European funding. The main aim is to promote synergies and to avoid the multiplication of isolated initiatives.

Type of actions and expected contribution to the Specific Objective 1.2:
The following list of actions is only an indicative list and can be completed with other relevant actions contributing to the specific objective's goals

- Joint entrepreneurial activities;

- Development and expansion of cluster activities;
- Joint framework development for joint business clusters both, in traditional and new products/services coupled with joint certification schemes' development;
- Advance existing knowledge on innovation processes e.g. by identifying patterns, exploring management structures, identification and analysis of good practices, mapping existing tools, analysing the transfer potential, etc.;
- Joint analyses at policy level of the barriers and opportunities/enabling factors for business adjustment and growth;
- Actions for raising awareness, transferring knowledge and creating common understanding about business model innovation in the Balkan-Mediterranean area;
- Development of joint mechanisms on how to adjust the knowledge to individual companies (or pilot existing tools and mechanisms taking into consideration the area's peculiarities & evaluate short-mid-term impact).
- Projects that make knowledge easily accessible in order to examine and change their business models, through the use of flexible and smart mechanisms created by the partnership, to achieve higher levels of performance and competitiveness, such as clusters, SME associations etc.

Main Target Groups

- Umbrella organisations of SMEs
- Development and planning agencies
- Local, regional and national authorities involved in business' management
- Technology transfer centres
- Innovation support networks
- Non-governmental and Civil Society organisations

Guiding Principles for the selection of operations

The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure.

The following guiding principles will be observed when selecting project applications:

Strategic coherence: coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches.

Operational quality: design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must.

Compliance to horizontal principles: coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic.

The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee.

The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals

4.5.4 Investment priority 10. Developing and implementing joint education and training systems.

4.5.4.1 Specific Objective. SO1.3. Support entrepreneurial learning and knowledge transfer for more competitive SMEs.

Results that Member states seek to achieve with Programme Support

The Balkan-Mediterranean area is characterised by high unemployment rates, exacerbated by the crisis in certain regions, while long term and youth unemployment are far above the EU average.

According to the "Entrepreneurship 2020 Action Plan" of the EU, "investing in entrepreneurship education is one of the highest return investments Europe can make". Consequently vocational education and training is needed to allow business' capacity adjustment and prepare new generations to the new labour market needs.

Special attention will be granted to entrepreneurs who are running their own businesses with new technologies, education, training and competitive methods of developing and running their businesses. Cooperation among SMSs and education institutions will be enhanced, trainings will be provided, and sharing of experiences and know-how, and introduction of new methodologies to have sustainable businesses will be encouraged also. Investment in human capital will bring forging of partnerships and networks among young entrepreneurs across the programme area. This will increase number of entrepreneurs engaging in businesses being qualitative and sustainable. These efforts will also increase employment in the programme area and also reduce brain drain.

Bearing also in mind that the Balkan – Mediterranean society involves poor and disadvantaged groups, the ones living in rural or remote areas, support actions to encourage social entrepreneurship, start-up businesses and coordination between public education institutions, employment offices, NGOs and Civil Society organisations will be promoted to provide opportunities to outreach young people and create skills for them to start-up businesses. Local governments and central governments will be encouraged to participate in order to establish a policy level tool/mechanism for long-term entrepreneurial support. Sharing of best practices will be promoted. Youth exchange programmes will be encouraged, university, centres, organisations, public and local institutions relevant to the field of action will be promoted in this direction within the programme area.

Piloting and mentoring will be other types of intervention that will also be promoted.

Expected results will be to:

- Establish efficient links between business and vocational training;
- Build the necessary skills that will enable SMEs to benefit from knowledge and technology transfer and become more competitive;
- Develop joint mechanisms that will allow exchange and transfer of knowledge between regions and countries in the Balkan-Mediterranean space.
- Reduce the brain – drain phenomena.

The results sought will directly contribute to the establishment of favourable and competitive business environment as a prerequisite for sustainable development. The main result of the SO is to provide the necessary education and training that will improve SMEs competitiveness and contribute to the national, transnational and EU GDP and create new and better jobs.

The results will build on existing potential of the region in terms of entrepreneurship potential and will capitalise on the opportunities offered by existing and planned initiatives (that link research and innovation with the business sector.

Examples of Actions

Actions supported under this SO will enable SMEs to acquire the necessary skills/tools to boost their competitiveness, grow towards other markets and introduce innovation in all phases of their business cycle.

Overall, the projects cannot be limited to studies or exchange of experience which only aim to produce or to exchange information and knowledge without concrete applications. The projects must have visible results or a measurable effect on the socioeconomic sector, on public policies, in certain activities, institutions and management or cooperating methods. The achievements and effects of the projects must be sustainable in order not to be limited to the period of provision of the European funding. The main aim is to promote synergies and to avoid the multiplication of isolated initiatives.

Type of actions and expected contribution to the Specific Objective 1.3:

The following list of actions is only an indicative list and can be completed with other relevant actions contributing to the specific objective's goals

- Joint organisation of vocational training schemes that build capacities of entrepreneurs, social entrepreneurs and potential entrepreneurs, including the unemployed and other disadvantaged groups to transfer technology and knowledge;
- Support of strategic partnerships' establishment between education/training centres in order to develop joint programmes tailored to the SMEs' needs;
- Development of joint training curricula that focus on technology and knowledge transfer;
- Establishing long-term regional and transnational networks to exchange experiences with regards to education and training, vocational training and developing education and training programmes linking to labour needs and demands;
- Exploring new innovative education and training methods (e-learning and setting up e-learning programmes, lifelong learning, use of ICT) through R&D
- Creating strategic partnerships and networks in the programme area, capitalising on the identified competences and competitive advantages of the participating countries and strengthening the cooperation with existing relevant EU stakeholders and network creating complementarities and synergies;
- Encouraging the setting up or upgrading of social enterprises in less developed regions, urban, rural and remote areas with training and know-how support;
- Support training targeted in start-up businesses;
- Establish regional and national entrepreneurs networks to promote entrepreneurship and sharing best models;
- Promoting joint efforts among educational institutions and business community representatives in the programme area (including transfer of best practice and know how) to improve the quality of education (in particular vocational training) to better fit to the required skills of the labour market;
- Setting up a regional network of mentors (successful companies willing to participate in the development of newly established or young businesses from the region and developing training programmes)

Beneficiaries (non-exhaustive list)

- Vocational education and training institutes/centres
- Umbrella organisations of SMEs
- Development and planning agencies
- Local, regional and national authorities involved in business' management
- Technology transfer centres
- Innovation support networks
- Non-governmental and Civil Society organisations

Guiding Principles for the selection of operations

The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure.

The following guiding principles will be observed when selecting project applications:

Strategic coherence: coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches.

Operational quality: design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must.

Compliance to horizontal principles: coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic.

The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee.

The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals

4.6 Priority Axis 2: Environment.

4.6.1 Justification for the establishment of a priority axis covering more than one thematic objective

During the public consultation process environment related issues emerged as the main challenge to address over the new programming period ahead. More than 70% consider the deterioration of the environment in the programme area as a major common threat, while over 60% perceive the natural resources' inefficient use as one of the main problems to tackle. Accordingly the programme's Priority Axis 2 is articulated around two Investment Priorities of Thematic Objective 6. By doing so the Balkan – Mediterranean 2014 – 2020 transnational cooperation programme is aligned with the EU environment action programme to 2020 and his own first priority ("Priority objective 1") aiming to protect, conserve and enhance natural capital.

The programme area includes landscape and natural capital of high biodiversity potential, yet under constant human pressure. Ecosystems restoration and green infrastructure development have important socio-economic benefits including for public health. Management & monitoring of designated areas can generate sustainable growth and sustainable employment, while studying, mapping, zoning and restoring degraded areas enhance both, scientific knowledge and the ecosystems' quality. At the same time it helps to resolve conflicts over land use and set the basis for ownership on shared sustainable growth goals. As the Natura 2000 network is behind schedule in the EU member states, IPA participating countries can benefit from both, good and bad conservation attempts experienced by participating EU member states. Furthermore,

natural and cultural areas contribute to the region's attractiveness; an "ecosystem based" management approach can deliver improved growth patterns. In this respect, public information, awareness and education on environment policy have important socio-economic benefits and can stimulate competitiveness. According to Eurostat, the employment in environmental sectors in the EU is steadily growing around 3% annually over recent years.

A sustainable bioeconomy can also contribute to intelligent and green growth provided that skills are developed accordingly. Developing training programmes geared to green jobs is clearly recommended in the EU Environment Action Programme to 2020 (PE-CONS 64/1/13, p. 38). Learn how to monitor environmental targets and developing common management techniques & approaches is important in order to reinforce peer review and best practice sharing (and even agreements on joint inspections) in all Balkan – Mediterranean participating countries.

Implementing EU standards requires skills aligned with the latest scientific knowledge. Therefore the Priority Axis 2 foresees to bridge the gap between available skills in the programme area and EU legislation enforcement by implementing the missing training facilities. The TO 6 is therefore combined to the TO 11 in order to improve environmental governance delivery and ensure a maximum impact of the overall investment.

The sole thematic intervention on the environment may secure the short term. While knowledge tools and training capacity improves delivery on legislation and governance. Furthermore, public awareness and education provide knowledge on how national and local administrations will give effect to the EU regulatory commitments. Consequently, Priority Axis 2 also proceeds with a holistic and integrated approach to secure sustainable results and maximise the investment impact.

4.6.2 Investment priority 6c. Conserving, protecting, promoting and developing natural and cultural heritage.

4.6.2.1 Specific Objective. SO2.1. Maintain biodiversity and natural ecosystems by strengthening networking and management of protected areas, including Natura 2000.

Results that Member states seek to achieve with Programme Support

The Programme area includes sites of high biodiversity, natural and cultural sites. Among them, 32 are registered in the World Heritage Lists and constitute an important basis to boost green growth potential while increasing attractiveness of the region. Designated areas and the ones of the Natura 2000 network will be particularly targeted. Regions, and in particular coastal areas, are facing demographic, economic and urban pressure and are subject to a variety of pressures and usage conflicts (e.g. from industry, agriculture, climate change, transport as well as mismanaged tourism flows). Consequently, one of the main challenges ahead is to promote sustainable development practices and policies.

An ecosystem basis approach is necessary to improve cultural and natural heritage management. Upgrading heritage management techniques will streamline coordination policies and maximize sustainable growth perspectives. The development of activities respectful of natural and cultural resources shall also take into account environmental changes that have direct interconnections with economic development and urbanisation and direct impact on natural and cultural heritage. The objective is to ensure that development of economic activities will be pursued with stronger attention paid to environmental changes and to the impact of these activities on natural and cultural heritage. Encouragement of partnerships and networking among relevant actors/stakeholders will also be supported, enabling a wide variety of actors to be involved in biodiversity protection and conservation activities, for both designated and non-designated areas. The specific aim is for people to be involved in ecosystems restoration and green infrastructure development, since wide participation creates common ownership of the areas targeted.

Expected results will be to:

- Enhance the level of sustainable use of natural and cultural heritage. The main change sought is an improvement of strategies, development plans, policies and planning tools together with a better cooperation between stakeholders for a more efficient valorisation of natural resources and cultural heritage.
- Protect, conserve and enhance natural capital, and at the same time contribute to the environment action programme to 2020 of the EU.

- Improved growth patterns on resources' use and efficiency, generated by the ecosystem approach implemented to halt biodiversity losses.
- Ecosystems restoration and green infrastructure development have important socio-economic benefits including for public health.
- Management & monitoring of designated areas generates sustainable growth and sustainable employment.
- Contribute to implement the Natura 2000 network and respective legislation, as it is behind schedule in all participating EU member states.
- Participating IPA countries can benefit from both, good and bad conservation attempts experienced by participating EU member states.

Examples of Actions

The actions that are foreseen to be supported under this specific objective will strengthen the capacities of relevant actors for an ecosystem basis development approach promoting efficient use and valorization of the natural resources and cultural heritage. The main emphasis will be on the policies, strategies, plans, management, coordination and planning tools that ensure environmental pressure decrease and avoid future conflicts. The development of common tools and shared management policies will be particularly pursued for natural and cultural heritage areas affected either by local pressures either by climate change.

Overall, the projects cannot be limited to studies or exchange of experience which only aim to produce or to exchange information and knowledge without concrete applications. The projects must have visible results or a measurable effect on the socioeconomic sector, on public policies, in certain activities, institutions and management or cooperating methods. The achievements and effects of the projects must be sustainable in order not to be limited to the period of provision of the European funding. The main aim is to promote synergies and to avoid the multiplication of isolated initiatives.

Type of actions and expected contribution to the Specific Objective 2.1:

The following list of actions is only an indicative list and can be completed with other relevant actions contributing to the specific objective's goals

- Development of joint strategies and policies promoting, testing and implementing concrete applications, pilot projects and practices for sustainable sites' management, for the EU environmental targets' monitoring and implementation of the corresponding EU legislation, as well as for integrated planning policies in both, land and sea;
- Development of transnational action plans and transfer of concepts models for the protection, promotion and development of natural and cultural heritage sites, of designated areas and the Natura 2000 areas in particular;
- Establishment of transnational cooperation networks for knowledge and technology transfer on biodiversity and nature conservation issues:
  - Network of professionals working in environmental legislation enforcement including lawyers, inspectors, prosecutors, judges encouraging best and bad practices' share.
  - Implementing and animating sustainable cooperation systems between the authorities in charge of the management and the update of strategies and solutions;
  - Cooperation of public and private institutions in the fields of competence and capacity building;
  - Partnerships and networks of all relevant actors: public institutions, business support organisations, civil society organisations, NGOs, etc.
- Awareness raising campaigns coupled with pilot application projects, aiming to enhance public information, awareness and education on environment policy;
- Joint regional branding strategy to increase visibility and market uptake;
- Develop environmental friendly behaviours that can also lead to resolve conflicts on land use issues;
- Promotion of scientific knowledge (studies, maps, reports, surveys, etc.) coupled with practical application test of management techniques in order to achieve joint action and management plans over biodiversity and nature protection;
- Developing transnational tourist offers and packages linked to the natural and cultural heritage where also alternative types of tourism can be developed;
- Promotion of a sustainable cultural-tourism approach towards Balkan-Mediterranean cultural and natural heritage linked to corresponding monuments;

- Transferring systems for the labelling and funding of green and fair products respecting and promoting the programme area cultural and natural heritage;
- Transnational cooperation activities in the fields of multiculturalism, cultural exchange and the establishment of connections in the field of creative industries in order to increase cultural diversity;

Beneficiaries (non-exhaustive list)

Identification of the main target groups (non-exhaustive list)

- Local, regional and national authorities
- Environmental and development agencies
- Protected areas management organisations and bodies
- Non-governmental and Civil Society organisations

Guiding Principles for the selection of operations

The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure.

The following guiding principles will be observed when selecting project applications:
Strategic coherence: coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches.
Operational quality: design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must.

Compliance to horizontal principles: coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic.

The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee.

The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals.

4.6.3 Investment priority 6f. Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution .

4.6.3.1 Specific Objective. SO2.2. Promote cooperation and networking aiming to introduce innovative technologies for efficient management of the waste sector, the soil and the water sector including adaptation to the Water Framework Directive (EC/60/2000).

Results that Member states seek to achieve with Programme Support

Resource efficiency is a prominent topic in the current EU strategies (EU2020, Waste Directive, Water Framework Directive, etc.).

EU environmental norms are sparsely implemented or not implemented at all, if subsequent regulatory framework simply missing. Water and waste quality issues together with degraded areas' rehabilitation / regeneration are of key importance to meet EU corresponding standards. The integrated approach for sustainable growth can mitigated the land – sea environmental pressures suffered throughout coastlines of the programme areas. Coastal zones' management coupled with accessibility can provide a promising testing bed for transnational cooperation potential in order to alleviate joint pressure from overall marine and maritime activities both, in land and sea.

The programme area holds significant potential for efficient and sustainable use of natural resources and for innovation and research activities in particular to enhance, implement and disseminate technological innovation in the fields of resource efficiency management, such as waste sector, the water sector and the soil and air pollution as well as energy efficiency. Fostering implementation of the sectorial legislation, such as Water Framework Directive & the Birds and Habitats directives, increasing the level of implementation of innovative technologies in the area, share best practices and transfer of knowledge for innovative management of environment and development of joint strategies for recourse efficiency will be supported by implementing this investment priority.

Transnational cooperation contributes to more efficient and better coordinated innovation activities, both in terms of research and implementation and also contributes to environmental awareness raising among political stakeholders and the general public by establishing knowledge platforms, capacity-building for local and regional administration and promoting best practice. Accordingly, the main result pursued by this Specific Objective is to increase the level of use of innovative technologies regarding resource efficiency management.

Examples of Actions

The actions that are foreseen to be supported under this specific objective will promote technology transfer and applications' tests to enhance resources' management efficiency.

Overall, the projects cannot be limited to studies or exchange of experience which only aim to produce or to exchange information and knowledge without concrete applications. The projects must have visible results or a measurable effect on the socioeconomic sector, on public policies, in certain activities, institutions and management or cooperating methods. The achievements and effects of the projects must be sustainable in order not to be limited to the period of provision of the European funding. The main aim is to promote synergies and to avoid the multiplication of isolated initiatives.

Type of actions and expected contribution to the Specific Objective 2.2:

The following list of actions is only an indicative list and can be completed with other relevant actions contributing to the specific objective's goals

- Development of integrated strategies and tools to reduce the use of resources, enhancing their efficiency and decoupling economic growth from resources consumption;
- Development of regional and inter-sectoral resource management plans to promote resource efficiency, innovative environmental management and green growth;
- Preparation of joint researches, studies, action plans and concrete management activities to promote innovative technologies in the field of resource efficiency;
- Shared actions' development for integrated marine and coastal management concerning resource efficiency providing also employment opportunities;
- Implementation of innovative pilot and demonstration projects in the field of energy efficiency, renewable energy, material life cycle, soil protection, air pollution, pollution of groundwater, considering also alternative and environment-friendly technologies.
- Joint pilot projects for promotion of innovative technologies to improve environmental protection and resource efficiency in the waste sector and water sector, including purification methods;
- Cooperation schemes and exchange of experience regarding the harmonization of environmental management concepts and tools at transnational level;
- Cooperation schemes and exchange of experience regarding the implementation of the sectorial legislation, such as Water Framework Directive;

Beneficiaries (non-exhaustive list)

- Local, regional and national authorities
- Environmental and development agencies
- Non-governmental and Civil Society organisations

Guiding Principles for the selection of operations

The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure.

The following guiding principles will be observed when selecting project applications:

Strategic coherence: coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches.

Operational quality: design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must.

Compliance to horizontal principles: coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic.

The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee.

The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals.

4.6.4 Investment priority 11. Enhancing institutional capacity of public authorities and stakeholders and efficient public administration through actions to strengthen the institutional capacity and the efficiency of public administrations and public services related to the implementation of the ERDF, and in support of actions under the ESF to strengthen the institutional capacity and the efficiency of public administration.

4.6.4.1 Specific Objective. SO2.3. Develop skills for better environmental management and increase governance capacities.

Results that Member states seek to achieve with Programme Support

The inefficient use of resources, the unsustainable pressure on the environment, and climate change, pose challenges to long-term economic growth.

The EU green growth model outlines a structural economic change which is mainly driven by scarcity of resources, technological change and innovation, new markets, and changes in industrial and consumer demand patterns. The Europe 2020 Strategy identifies the transition towards a green, low carbon, energy and resource-efficient economy as essential to achieve smart, sustainable and inclusive growth. A gradual shift towards an energy and resource-efficient circular economy will increase competitiveness and boost economic growth, while creating more and better jobs. Saving, re-using and recycling materials will support the future competitiveness of successful companies. The transition will bring about fundamental transformations across the entire economy and across a wide range of sectors.

The public sector in particular is necessary to better anticipate and manage adjustments and challenges towards transition to a greener economy. Dealing with sustainable resources' management and monitoring EU environmental targets require skills aligned with the latest scientific knowledge. Learn how to monitor EU environmental targets and developing common management techniques is important in order to reinforce peer review and best practice sharing.

Transnational cooperation can offer a suitable exchange and knowledge platform for training and capacity building of public authorities and stakeholders to strengthen the institutional

capacity and improve delivery on legislation and governance. Furthermore, public awareness and education provide knowledge on how national and local administrations will give effect to the EU regulatory commitments.

Accordingly, the main result pursued by this Specific Objective is to increase the governance capacity and corresponding delivery regarding environmental legislation.

Examples of Actions

The actions that are foreseen to be supported under this specific objective will strengthen the capacities of the public authorities and stakeholders to improve delivery related to environmental legislation.

Overall, the projects cannot be limited to studies or exchange of experience which only aim to produce or to exchange information and knowledge without concrete applications. The projects must have visible results or a measurable effect on the socioeconomic sector, on public policies, in certain activities, institutions and management or cooperating methods. The achievements and effects of the projects must be sustainable in order not to be limited to the period of provision of the European funding. The main aim is to promote synergies and to avoid the multiplication of isolated initiatives.

Type of actions and expected contribution to the Specific Objective 2.3:

The following list of actions is only an indicative list and can be completed with other relevant actions contributing to the specific objective's goals

- Setting up education, training and vocational education schemes for raising environmental awareness and enhancing the capacities of relevant stakeholders in the field of environmental protection, monitoring and management.
- Establishing long-term regional and transnational networks to exchange experiences with regards to education and training, vocational training and developing education and training programs linking to skills' development for better environmental and resources' management.
- Exploring new innovative education and training methods considering cooperation networks among education institutions, centres, Universities, NGOs, research, academics, scholars to explore best practices and pilot tests' applications.

- Promoting joint efforts among educational institutions and public/business community representatives in the program area (including transfer of best practice and know how) to improve the quality of education to better fit to skills for better management of environmental resources.

Beneficiaries (non-exhaustive list)

- Local, regional and national authorities
- Environmental and development agencies
- Protected areas management organisations and bodies
- Non-governmental and Civil Society organisations
- Stakeholders dealing with environmental legislation

Guiding Principles for the selection of operations

The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure.

The following guiding principles will be observed when selecting project applications:
Strategic coherence: coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches.
Operational quality: design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must.

Compliance to horizontal principles: coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic.

The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee.

The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals.

5. BALKAN- MEDITERRANEAN PROGRAMME ALTERNATIVES

In this chapter the potential alternatives in planning the Programme implementation are presented and evaluated according to the Directive 2001/42/EU.

The frames of Regulations that govern the Programme incorporate the basic principles of the EU policies, so consequently the potential of deviation from these is limited. The fact that the Programmers of the Programmatic period 2014-2020 maintain the level of analysis and distribution of resources at the level of their priority axes should be considered, since it constrains the potential of formulation of alternative solutions regarding the content of the BALKAN- MEDITERRANEAN 2014-2020 Programme.

Zero Solution: The alternative, which will be examined, is the zero solution. Zero solution is assessed as the most unfavorable in general and environmental level for the following reasons:

- It is opposed to the general principle of the EU for the cohesion and balancing of inequalities in governmental and regional level.
- The advantages, which occur due to the cross-border cooperation of the countries, are lost. These advantages occurred from the cooperation in sectors that have been tried in the past and are related with mainly environmental subjects of the five countries. Especially in the environmental sector this will have negative long-term effects mainly in the implementation of innovative methods in vital subjects that increase competition and environmental performances.
- The cooperation and contact between five neighbouring countries is limited. This cooperation concerns exchange of experience and know-how and the development of linkages between institutions and stakeholders of public and private sector of the five countries in subjects that need coordinated common actions. Especially in the environmental sector (mainly in water management, marine environment, sensitive sites and species management, sustainable tourism, abatement technology dissemination), this will have negative long term effects mainly in the implementation of innovative methods in vital subjects that increase competition and environmental performances.

6. EXISTING STATE OF THE ENVIRONMENT

6.1 INTRODUCTION

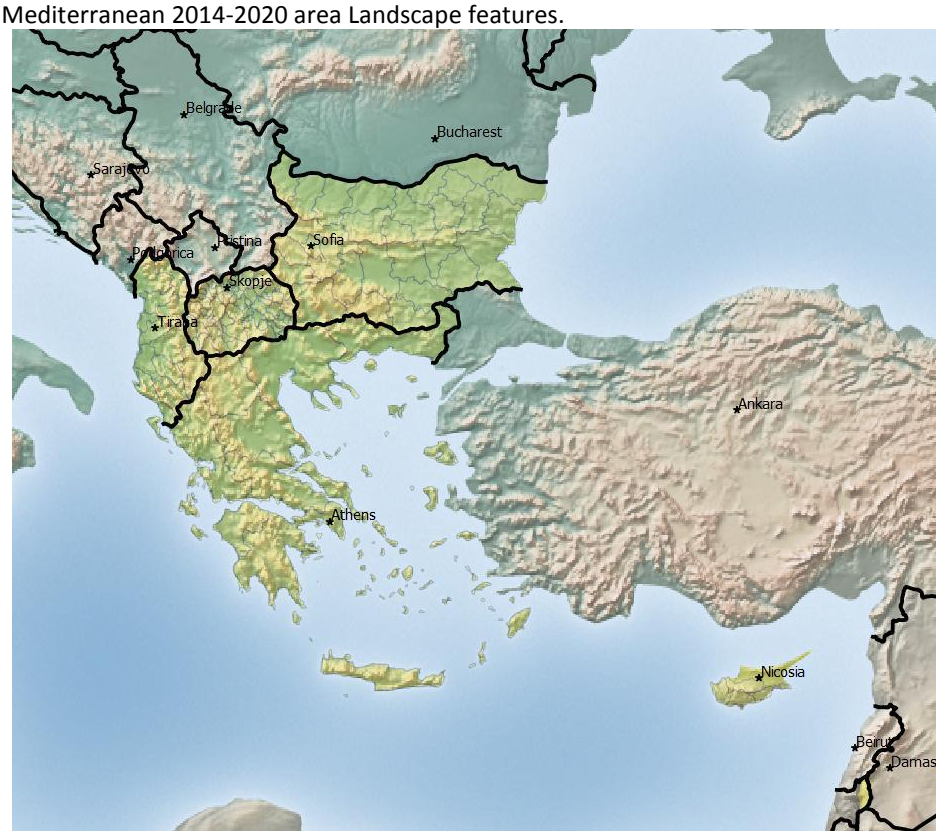
In the present chapter an analysis of the existing state of natural and anthropogenic environment is presented focusing in the BALKAN- MEDITERRANEAN region of interest. Emphasis is given to **Water Sector** (and Corresponding **Solid Waste** since soluble fraction of controlled landfilled solid waste end up in groundwater or other water bodies), **Climate-change** and **Energy**, which are the most relevant environmental aspects to BALKAN- MEDITERRANEAN objectives.

6.2 DESCRIPTION OF NATURAL ENVIRONMENT

6.2.1 Geographic area - Geomorphology of region of collaboration-Landscape

BALKAN-MEDITERRANEAN 2014-2020 countries area Landscape features are presented at the following figure.

Figure 3. Balkan Mediterranean 2014-2020 area Landscape features.



6.2.1.1 Bulgaria

Located in the heart of the Balkans, Bulgaria offers a highly diverse landscape: the vast lowlands of the Danube and the south by the highlands and elevated plains dominate the north. In the east, the Black Sea coast attracts tourists all year round.

Figure 4. Map of Bulgaria

6.2.1.2 Greece

Greece forms the southern extremity of the Balkan Peninsula in south-east Europe. Its territory has an area of 131 957 km2 and includes more than 2 000 islands in the Aegean and Ionian seas of which only around 165 islands are inhabited. Greece has a population of 11.2 million. Greece has a large variety of landscape elements.

The first landscape element is the sea: arms and inlets of the sea penetrate deeply, and the rocky headlands and peninsulas extend out to sea as island arcs and archipelagos. The country's second landscape element is its mountainousness: roughly three quarters of Greece is mountain terrain, much of it deeply dissected. River and coastal plains, interior valleys and basins account for the third dominant feature of the Greek landscape.

Figure 5. Map of Greece

6.2.1.3 Cyprus

Cyprus, the third largest island in the Mediterranean is situated just 65 km south of Turkey and 105 km west of Syria. It has an area of 9.250 km2 with its greatest length approximately 225 km and its greatest width approximately 96 km. In Cyprus, as in the rest of Europe, agriculture dominates much of the landscape, extending over half of the island’s territory and comprises mainly rain fed but also irrigated, crops. The main characteristic of Cyprus landscape is the island status. Cyprus amounted over 100 smalls islands and rocky islets, which have rocky, sandy, steeply inclined beaches. It is endowed with a great variety of landscapes ranging from mountainous regions and plains to an extensive coastal line, which is extremely irregular in outline. The barren meadow percents a large diversity similar to geographical characteristics like height, extent, slope. The two main mountain ranges are the Pentadactylos in the north and the Troodos in central and southwestern pan of the island. Between them is the fertile plain of Messaoria.

Figure 6. Map of Cyprus

6.2.1.4 Albania

Albania lies in the Southwestern part of the Balkan Peninsula, covering an area of 28,748 square kilometers. It occupies a strategic geographical location in South-Eastern Europe along the Strait of Otranto which links the Adriatic Sea with the Ionian Sea and separates Albania from Italy. Albania shares a border with Greece to the south/southeast (282 km), former Yugoslav Republic of Macedonia to the east (151 km), Kosovo to the northeast (112 km), and Montenegro to the northwest (172 km)1. The capital city of Albania is Tirana. Other major cities include Durrës, Vlorë, Fier, and Shkodër. Albania is a country of about 3.6 million inhabitants.

Much of Albania's surface is mountainous – the average height above sea level is 708 m and its highest peak, Mount of Korabi, is 2,753 m. The country is rich in water resources with the main rivers being extensively managed to generate hydro-electricity.

The country has nearly 450 km of seacoast along the Adriatic and Ioanian Seas. Over a third of the territory of Albania is forested and the country is very rich in flora. Other natural resources include petroleum, natural gas, coal, bauxite, chromites, copper, iron ore, nickel, salt, timber, and hydropower.

Figure 7. Map of Albania

6.2.1.5 Former Yugoslav Republic of Macedonia

The Former Yugoslav Republic of Macedonia is a landlocked country in the central part of the Balkan Peninsula. The population is approximately two million people, with a total area of about 25,700 km2. Its territory is mainly mountainous marked by a central valley formed by the Vardar's river and framed by the Sara and Osogovo rivers. Three large lakes (Ohrid. Prespa and Dojran) lie on its southern borders, bisected by frontiers with Albania and Greece. They are well known for their scenic beauty and one of them, Ohrid is considered to be one of the oldest lakes and biotopes in the world.

Figure 8. Map of Former Yugoslav Republic of Macedonia

6.2.2 Solid Waste

6.2.2.1 Bulgaria

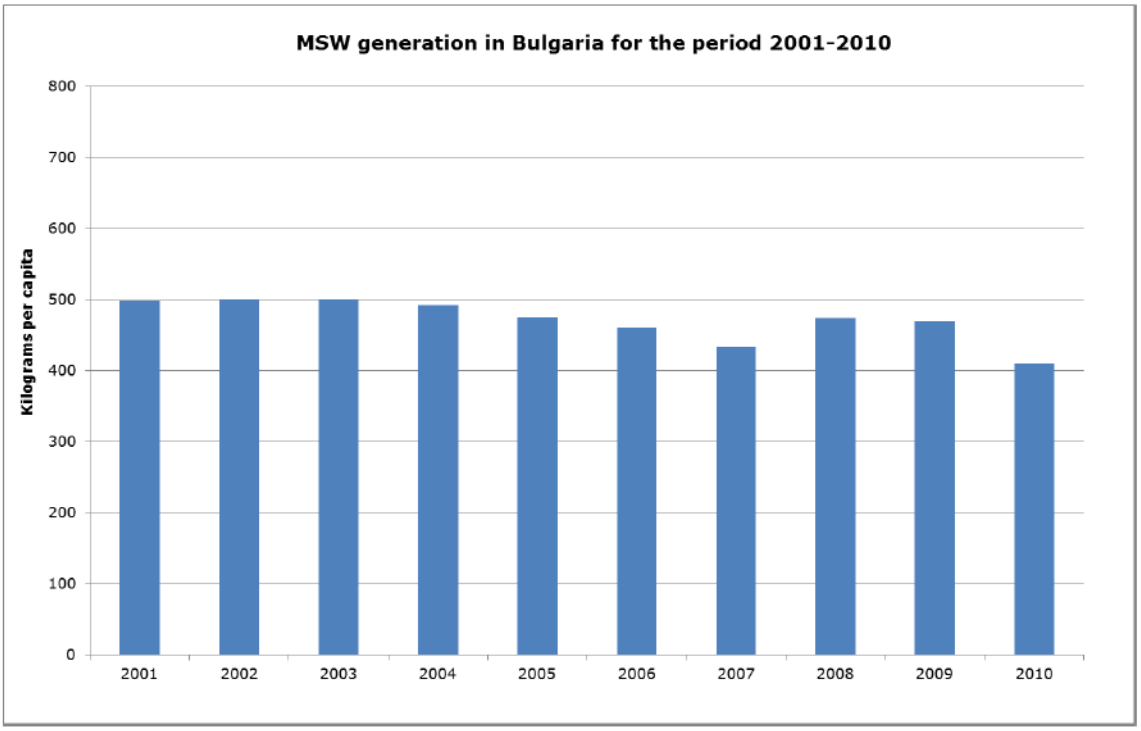
The following analysis is based on *EEA publication "*Municipal Waste Management in Bulgaria*", 2013*

Waste generation

A very large proportion of the municipal waste in Bulgaria is landfilled. The amount of municipal waste deposited into landfills was 3 million tonnes in 2010. Representing 98% of the generated amount (3.1 million tonnes).

Following figure shows the development of MSW generation per capita in Bulgaria from 2001 to 2010. There has been a decrease in MSW generation per capita during the period.

Figure 9. MSW generations per capita in Bulgaria



(source:EUROSTAT)

Municipal waste.

In 1995-1997, between 450 and 500 kg of municipal waste was generated on average per person a year. The 3.6 million tonnes of municipal waste registered in 1997 were generated in 1.12 settlements with organized waste collection and transport, serving 77 per cent of the country's population. Disposal is the only municipal waste treatment at present. There were 622 landfills for controlled waste disposal in 1998, and 99 per cent of the collected waste accumulated there. With a few exceptions, these landfills do not comply with the new requirements. According to the data supplied by the municipal administrations, almost 27 per cent of the existing landfills are under then control. They represent 54 per cent of the area covered by landfills.

Construction waste.

More than 80 per cent of construction waste is generated in the country's big cities. About 300.000 m3 of the construction waste is collected into specialized landfills. A quarter is used in road construction and the recultivation of soils. There are cases of construction waste being discharged into landfills for municipal waste, but this practice is now rare.

Industrial waste.

43.5 million tonnes of industrial waste was generated in 1997 30.5 in 1998. In relative terms, mining and ore-processing industries generate the most industrial waste. Part of their waste is hazardous. Thermal power plants and chemical industries are the next biggest industrial waste generators.

The mining and ore-processing enterprises, which are declared, bankrupt or in receivership are facing serious problems with their tailings ponds. The total area damaged by such enterprises exceeds 1670 hectares. 510 ha of which are old tailings ponds. More than 270 million tonnes of hazardous waste is deposited in the latter, resulting from the processing of copper-pyrite and lead-zinc ores.

Disposal in landfills is the most common industrial-waste treatment method. Over 99 per cent of the waste is deposited in landfills owned by the enterprises themselves and the rest is deposited in the urban landfills together with municipal waste. The waste from the food industry is often (61 per cent) reused in agriculture as food for livestock and as fertilizer. The rest is deposited in urban landfills together with municipal waste.

The enterprises report that ferrous and non-ferrous metal (98 per cent), paper (89 per cent) and glass (62 per cent) waste are largely recycled. Depending on the way activities are organized within the respective industrial units, the collected waste is directly transferred to recycling companies or to licensed trading companies.

Hazardous waste.

The average annual amount of hazardous waste generated in Bulgaria in recent years is about 1.1 million tonnes. 40 per cent of which are the 11 most common types (pesticides, waste oils, sludge from industrial waste water, hospital waste, etc.) Data on the hazardous waste generated do not include waste generated by primary processing of non-ferrous metal ores, which are shown together with the waste generated by mining and ore-processing enterprises. The information available represents mainly waste quantities. The absence of a national laboratory system for hazardous waste does not allow more precise identification by material and control of the waste.

Soil pollution

The main problems are deposition of air pollutants from metallurgical plants, soil acidification due to over-fertilization and soil erosion. According to data of 1996, 393 hectares have been damaged by mining, quarrying or other similar works. Coal mining is mainly responsible (almost 90 per cent). 49 ha have been restored, which is only 12 per cent of the affected lands. There is an increase in damaged areas.

Future possible trends

Considering the current level of material and organic recycling of MSW in Bulgaria, exceptional efforts will be required for fulfilling the 50 % recycling target by 2020. A certain proportion of the recycled packaging waste from MSW sources could be reported as recycled MSW.The landfill tax. introduced in 2011. It is envisaged to gradually increase from the entry level of 1.5 EUR/t to 17.9 EUR/t bv 2014.

The recycling sector is rapidly expanding in Bulgaria. Major investments into construction of pre-treatment facilities and installations for waste separation are envisaged to be directed from the COOPERATION Programme Environment 2007|-2013 (NWMP 2009-2013. 2009). The European fluids are planned to be

complemented by state and municipal budget as well as from loan funding from the World Bank, EBRD, and EIB. Funds for home composting will be provided by the Environmental Protection Fund, in 2012. The construction of an MBT and composting plant is going to start in Sofia.

The Bulgarian Ministry of Environment and Water has adopted a National Strategic Plan for diversion of biodegradable waste going to landfill during the period of 2010-2020. In addition, the development of the entire legal framework on bio-waste management is planned under an international project in cooperation with Austria.

It is likely that some recent initiatives taken after 2010 by the Bulgarian government (the Waste Management Act. adopted in July 2012: the National Waste Management Programme for the period 2009-2013: the National Strategic Plan for diversion of the biodegradable waste going to landfills 2010-2020. and Decree no 207/16.09.2010 on landfill tax. adopted in January 2011) will contribute to an improvement in the recycling rate in the country. However, it must be stressed that Bulgaria will need to make an exceptional effort in order to fulfill the 50 % target of the Waste Framework Directive by 2020.

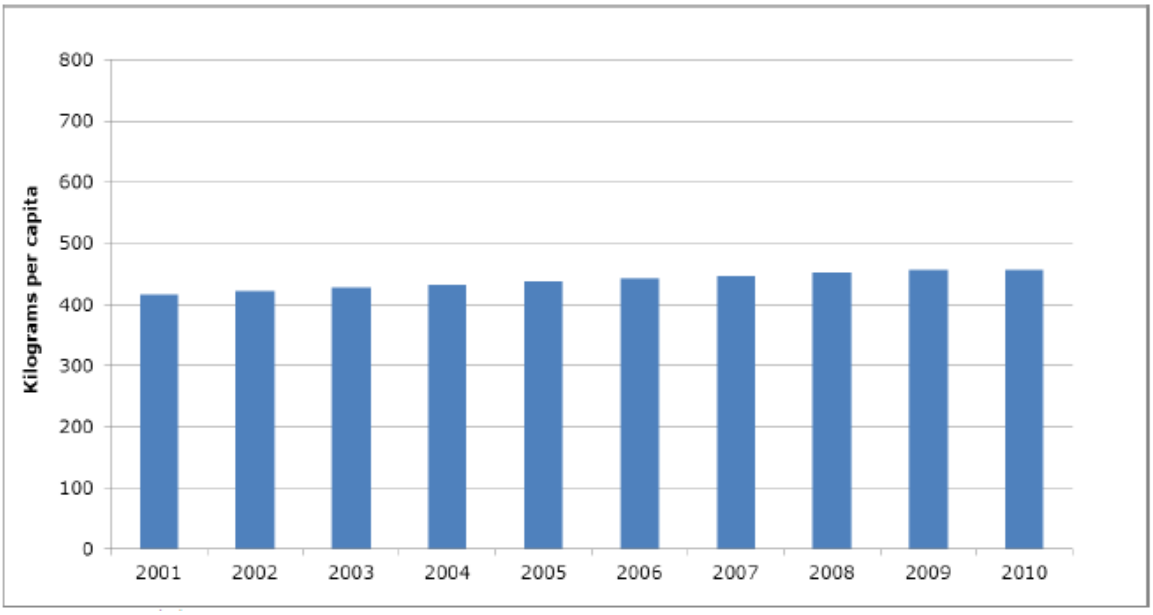
6.2.2.2 Greece

The following analysis is based on *EEA publication "*Municipal Waste Management in Greece*", 2013.*

Waste generation

According to present waste statistics, the amount of waste generated in 2010 was about 457kg per capita. There is a slow but gradual increase throughout the years between 2001 and 2010. The next figure presents the amount of waste generated per capita through the last decade.

Figure 10. MSW generation per capita in Greece



source: Eurostat

Recycling Waste

In general, recycling increased in Greece in the decade between 2001 and 2010. This increase, however, has not been smooth, since a sharp one between 2006 and 2007 while followed a moderate increase afterwards, recycling rates seem to have stabilised. Composting seems to play a minor role in MSW treatment with no more than 2 % of MSW composted. In fact, no composting was reported in 2003 and 2004.

Both composting (to a lesser extent) and recycling were boosted after the establishment and operation of two large MBT plants in two regions of Greece in 2005-2006. It seems that the MBT output has contributed significantly in providing material recyclables, but not so much compost material.

Future possible trends

The future EU targets, already transposed by Greece refer to the Landfill and the Waste Framework Directives, when examining MSW. According to the current trends, Greece is likely to miss the targets of both Directives if it does not intensify efforts towards recycling and diversion of waste from landfill considerably.

Regarding the Landfill Directive, the level of landfilling of biodegradable MSW was estimated to amount in 2010 to around 108 % of the generated amount in 1995. Therefore, besides missing the target for 2010, Greece is likely to experience great difficulties in meeting the targets for 2013 and 2020.

Greece will need to make an exceptional effort in order to fulfil the 50 % recycling target of the Waste Framework Directive by 2020.

On the other hand, Greece seems to have a strong future strategy regarding treatment of MSW. A great number of plants are in the planning or construction stage, mainly based on MBT technology, which has the

potential to contribute to all Greece's targets by simultaneously diverting the biodegradable fraction from landfills and increasing the material recovery. The introduction of new plants could have the same effect on recycling as the two existing MBT plants which boosted the figures for recycling.

6.2.2.3 Cyprus

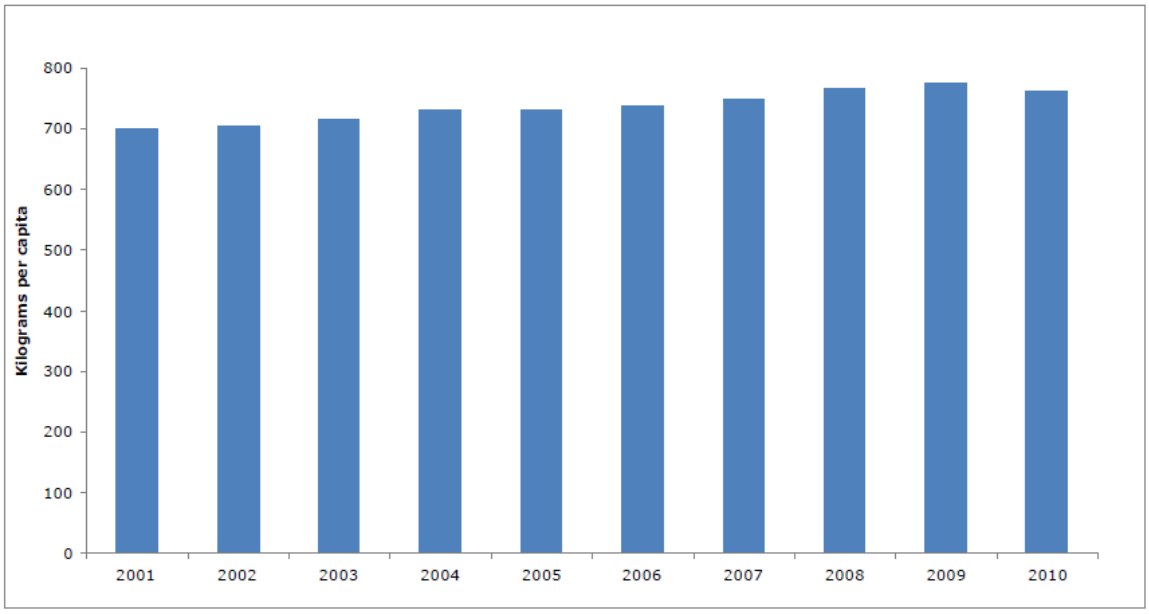
The following analysis is based on *EEA publication "*Municipal Waste Management in Cyprus*", 2013*

Waste generation

The generation of MSW increased in Cyprus with 25 % between 2001 and 2010, with a peak in 2009. Per capita MSW generation is one of the highest in the EU (760 kg/cap in 2010), well above the EU average. The main aim of the authorities in Cyprus is to reduce these high generation rates, which are based on socio-economic

drivers. Another reason for the high generation of MSW could be the high tourist activity in the country. The next figure presents the amount of waste generated per capita through the last decade.

Figure 11. MSW generation per capita in Cyprus



(source: EUROSTAT)

Recycling Waste

The total recycled MSW as a percentage of generated MSW doubled in the decade between 2001 and 2010. Increasing from around 10% to 20%. In general, recycling in Cyprus is at a relatively low/medium level, but there is a very slow steady increase. Cyprus has displayed a moderate increase in the recycling levels until 2009 and then a much sharper increase occurred in the last reporting year where biological treatment (composting or anaerobic digestion) jumped from zero to 4 % and material recycling increased with 3 percentage points.

Between 2001 and 2009, recycling in Cyprus consisted only of materials other than organic waste and displayed only a minor increase (around 3 percentage points). Therefore, the big increase in performance in both organic and material recycling in 2010 could be a sign of an increased effort in Cyprus regarding MSW management.

Hazardous Waste

The hazardous waste in Cyprus is generally disposed of together with other, less harmful waste. Some industries collect and store the waste in a responsible manner, while others lack knowledge about which waste is to be considered as hazardous and consequently should be treated separately. Cyprus does not possess the facilities required for the effective collection and treatment of hazardous waste. Environmental legislation does not exist to extent necessary for the protection of the environment. Solid hazardous waste is generated at hospitals and at bleaching and dyeing enterprises, which are equipped with internal treatment processes generating ashes and sludges respectively. The hospitals generate both waste, similar to household and commercial waste, and hazardous waste (biological and infectious wastes). Using the existing pyrolysis ovens incinerate hospital waste. During the pyrolytic treatment the amount of waste is reduced.

Future possible trends

As Cyprus recycled 121 000 tonnes of MSW (out of 611 000 tons) in 2010. corresponding to approximately 20 %. The country would need to increase its recycling rate by 3 percentage points annually. For indicative purposes only that would mean Cyprus needs to increase its recycling by more than 18 000 tonnes of MSW annually, provided that the waste generation remains constant.

Therefore, there is a need for Cyprus to intensify its efforts for recycling. No information has been found on initiatives to increase recycling in the near future. Another incentive for Cyprus to increase recycling, and composting specifically, is the implementation of the Landfill Directive.

In general, although Cyprus has transposed all EU legislation, it faces difficulties in its implementation, mainly due to lack of infrastructure, mixing of responsibilities among the authorities and absence of sufficient monitoring of the waste management system.

6.2.2.4 Albania

The following analysis is based on *EEA publication "*Municipal Waste Management in Albania*", 2013*

Waste Management

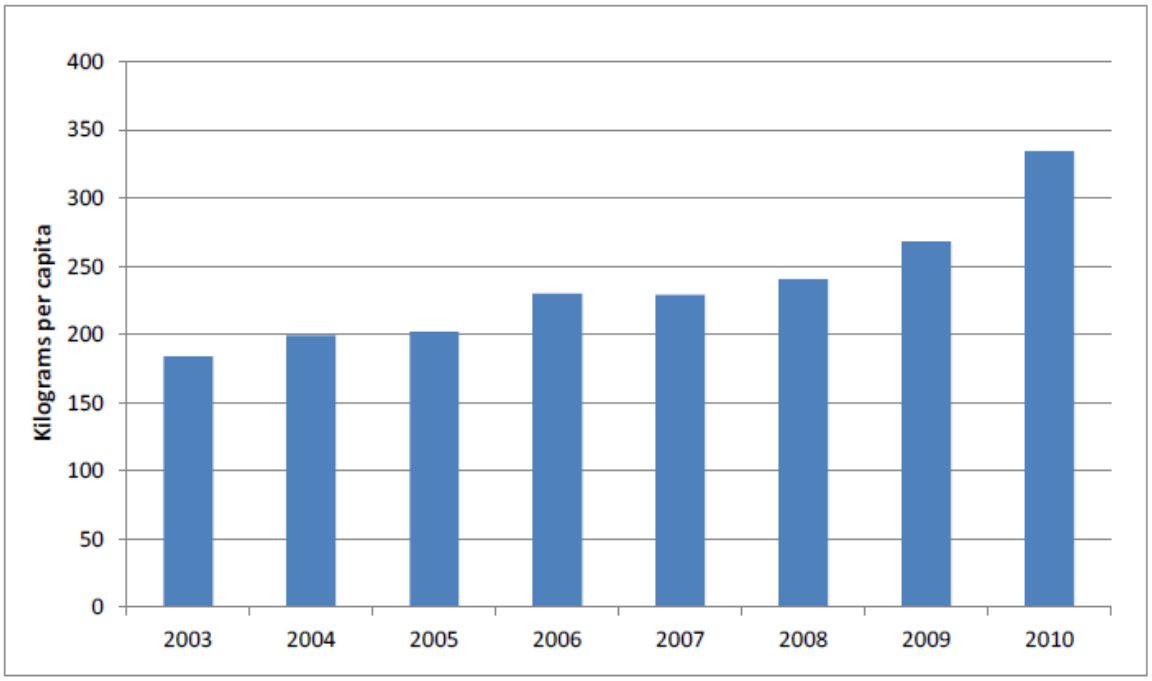
Waste management in Albania is at a low level. Systems for the collection of municipal solid waste (MSW) are provided in most cities and towns, but not in rural areas. Very little recycling of waste is undertaken. Wastes are mainly disposed of at municipal dump sites. With few exceptions (Sharra and Bushat landfills), there are no properly managed landfill sites in the country.

The management of industrial and mining waste is focused on clean-up and remediation of waste generated by chemical and mining industries in the past. Although current industrial waste generation is considered low, there are no data to assess the existing situation. Progress has been achieved in assessment and prioritization of sites polluted by past activities and clean-up of the most polluted area. The clean up of the chemical plant in Durres was completed in 2011.

The management of radioactive waste is under the control of the Centre of Applied Nuclear Physics (CANP). Medical waste management benefits from the involvement of the private sector. Old pesticides have been exported from Albania for proper disposal.

There is a perceived imbalance between the new legal framework, which is compliant with EU standards, and the limited human resources and waste management practice observed in the country. The capacity of national, regional and local administrations to achieve sustainable development of waste management in Albania is low. The generation of MSW per inhabitant in Albania has significantly increased over the last few years. In 2010 the amount of MSW produced in Albania was 335 kg per capita. This constitutes 80 % increase, compared to the amount of MSW generated in 2003 which was 184 kg per person. The fact of this rapid development in MSW generation underlines the pressure for improving MSW management in Albania.

Figure 12. MSW generation per capita in Albania



(Source: EUROSTAT)

Municipal solid waste collection

The estimation of MSW generation in Albania is based on the number of trucks delivering waste to disposal sites. INSTAT publishes an overview of MSW and construction and demolition waste. The increase of MSW amounts reflects the improvement of reporting on collection and disposal activities rather than an actual increase in MSW generation. In cooperation with two private recycling companies, the Municipality of Tirana has recently taken initiatives to facilitate separate collection services and encourage segregation at source by waste generators. In order to raise awareness among its staff and enable collection of larger amounts of materials for recycling, in one project the Municipality introduced containers for segregation of paper and plastic waste at its premises. This pilot project is to be extended to other institutions in the city as well. Another project concerns paper and cardboard packaging waste from businesses. In other large cities some informal separation and collection of materials for recycling occurs.

Municipal solid waste disposal

Dumping in uncontrolled sites is the main method of MSW disposal. It is estimated that about 65 large uncontrolled sites and numerous small sites are currently in operation in Albania. The National Waste Management Plan envisages the replacement of these by 12 regional controlled landfills.

Recycling of MSW

There are currently some private recycling companies in Albania that collect and process different types of waste, namely metal scrap, paper, plastic, textiles and used tires. There are about 12 000 individual collectors (informal sector) and about 60 different recyclable waste collection companies. However, there is a lack of waste separation at the source. Individual collectors and companies face difficulties in finding clean and separated waste. Most of the recyclable waste comes from urban waste and partly from the industrial sector.

Glass bottles are collected, sterilized and reused by beverage companies. Paper and cardboard are soiled only in small quantities at a paper recycling plant in Tirana. Aluminium cans are usually exported to neighbouring countries for reprocessing, and a very small proportion of them goes to a small private Albanian smelter (UNECE, 2012).

Industrial and hazardous waste

The key industrial waste generators are mostly the oil industry, cement production, steel and mining. The oil industry extracts 260.000 tons of crude oil and 7.9 million m of natural gas, and produces about 300,000 tons of oil products, annually. Cement production is developing in Albania. Total cement output reached 1.108 million tons in 2009. There are cement plants in Fushe Kruje and Elbasan. Production began at a new 1.5-million-metric-tons-per-year cement plant in the Kruje Region north of Tirana in early 2010.

As with general industrial waste, there is no information available on current hazardous waste management in Albania. Expert studies estimate that hazardous waste may constitute 3-5 per cent of total industrial waste. Albania created conditions for recording industrial as well as hazardous waste by adoption of a waste classification system and other legislation, but practical implementation -registration of waste amounts - has been delayed.

The future possible trends

The National Waste Management Strategy sets the direction of the Albanian Government's policy for the sustainable management of waste by 2025. divided into 3 COOPERATION phases of 5 years each.

The objectives of this strategy are:

- By 2015. recycling composting 25 % of municipal waste:
- By 2020. aim to stop the increase of municipal waste produced: Recycling composting 55 % of municipal waste:
- By 2025. aim at the reclamation of energy from 15 % of municipal waste.

The objectives of the National Waste Strategy will be implemented through the development and implementation of:

i. The National Waste Plan:

ii. The Regional Waste Management Plans:

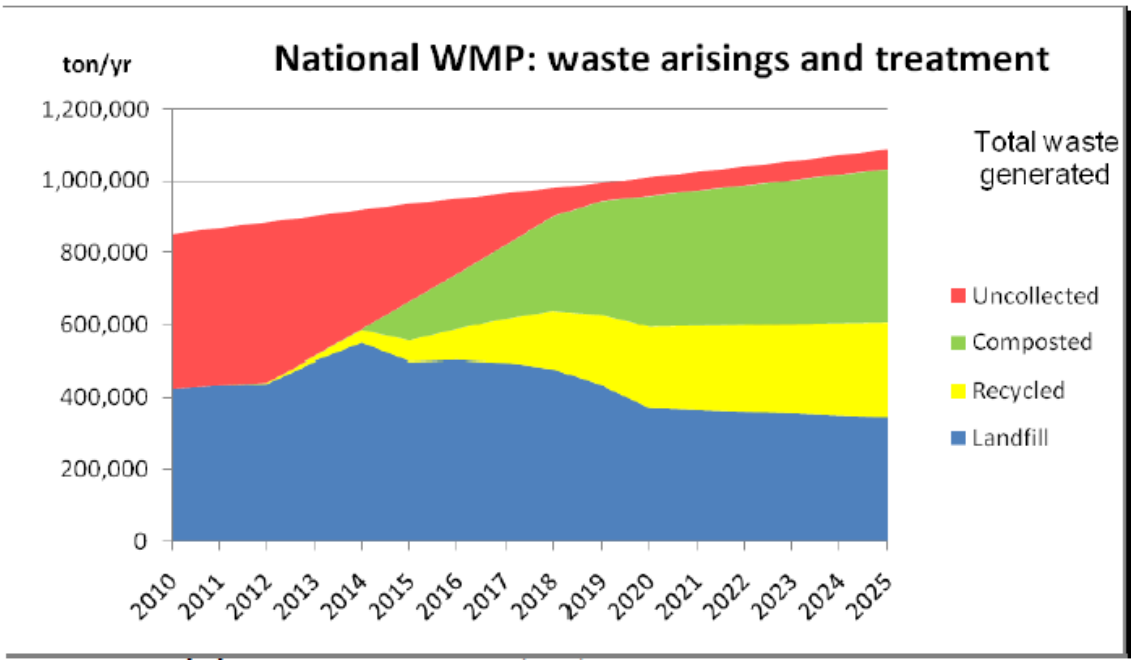
iii. The Local Waste Management Plans.

The National Plan also establishes two interim targets, which reflect the short term need to focus on municipal waste:

- to increase the amount of waste collected by local authorities that is recycled or composted to 25 % by 2015;
- to increase the amount of waste collected by local authorities that is recycled or composted to 55 % by 2020.

Overall, a radical change is planned within the Albanian waste management practices. There will be a shift away from the current absolute reliance on landfilling to a long term target of reducing landfilling to 30%, with 70% recovery by recycling, composting and conversion to energy. The projection of the generated MSW during the planned period in the above mentioned National Waste Plan (2010-2025) is presented in the next Figure. This projection shows how much biodegradable waste needs to be diverted from landfill, and how much recycled material should be collected separately from municipal waste and be prepared for recycling.

Figure 13. Projection of MSW generation in Albania 2010-2025



(source: Waste Management Plan in Albania)

6.2.2.5 Former Yugoslav Republic of Macedonia

The following analysis is based on *EEA publication "*Municipal Waste Management in Former Yugoslav Republic of Macedonia *", 2013*

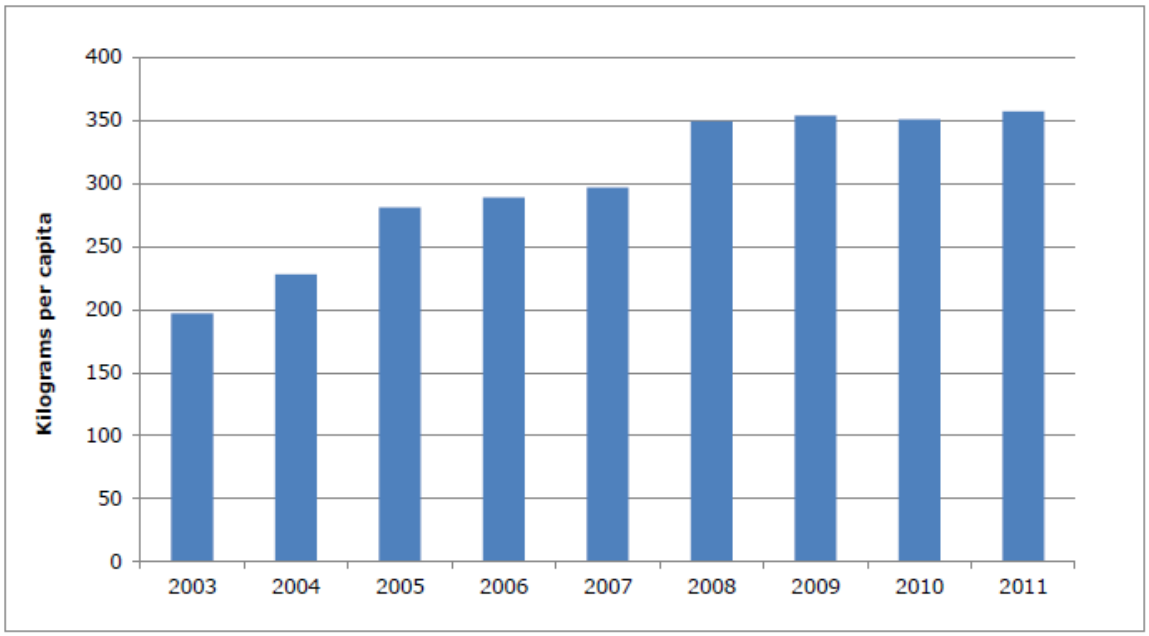
Municipal and hazardous waste

Waste management is one of the most serious environmental issues in the country. The lack of suitable infrastructure hampers adequate waste disposal in general and disposal of hazardous waste in particular. There is only one licensed landfill in the country and around a thousand illegal dumps. There are no incineration plants (except for medical waste), no composting and few recycling facilities. Furthermore, tasks and responsibilities on the waste management field are in practice split among several institutions in the country. Municipalities are formally responsible for waste management, but only a few of them have appointed the responsible divisions persons in their administration. Across other institutions these also have insufficient human resources, knowledge and experience to develop and implement all the relevant legislation, standards, instruments and investments to establish an integrated waste management system. Also the real costs of service delivery are not frilly recovered and the regulation of the system does not enable the 'polluter pay* principle to be enforced. The financial situation of public enterprises is getting worse, additionally due to the decline of the economy. However, in March 2008 the country adopted the Waste Management Strategy of the Former Yugoslav Republic of Macedonia (2008-2020), Which aims to address these problems.

Municipal waste.

About 420.000 tonnes of municipal waste were produced in the country in 2008. i.e. about 204 tonnes per capita. Data from 2004 reveal that, while in urban areas the waste collection system covered 100% of the population, in rural areas only the 10% was covered.

Figure 14. MSW generation per capita in former Yugoslav Republic of Macedonia



(source:EUROSTAT)

Vast Majority of municipal waste is landfilled (with a few exceptions, these landfills do not comply with the new requirements). Most of the larger landfills are located near urban settlements, but locations have often been selected without any consideration of the environmental and geological conditions of the site. The Drisla landfill, serving the Skopje region, is the only licensed landfill, although not compliant with EU legislation. Another 54 municipal landfill sites are identified, but are not permitted. Co-disposal of hazardous waste and medical hazardous waste occurs at most of them, and requirements for sanitary operation and environmental protection are not met. In most cases, especially in rural areas, the collected waste is simply dumped on open areas. As a result thousands of dumpsites have been created in quarries, pits and in the natural landscape. Methane emissions from landfills are not collected and in 2002 were responsible for the release of 787 kilotonnes of CH4 in the atmosphere. By the end of 2005 activities were undertaken for clearing of illegal dumps at nine locations, and others were planned. Furthermore, in 2005 the development of two regional landfills serving about 400.000 people in the north-east and central regions of the country was agreed.

Recycling Waste

Recycling and composting of MSW covers a minor 0.26 %. according to data provided by the Ministry of Environment and Physical Planning for 2012.

One of the main goals in waste management in former Yugoslav Republic of Macedonia is the recovery of valuable ingredients of the waste to be organized by the producers, importers, distributors, and retail traders, as well as specialized service companies. Fractions of waste that can be recycled in a cost-effective

manner in former Yugoslav Republic of Macedonia include particularly plastics, secondary and tertiary packaging, used tires, waste oils and lubricants, scrap metal, waste electric and electronic equipment.

The future possible trends

The requirements concerning the capacity of municipal solid waste management systems will be greatly influenced by the future economic development of the country. The assumed future waste generation scenarios are related to population growth and GDP growth, following applied OECD methodologies. The annual rate of increase in the generation MSW waste in former Yugoslav Republic of Macedonia is estimated at 1.7 % .

The National Waste Management Plan includes financial estimates for two key areas, namely legislative development and infrastructure financing. Infrastructure investments are estimated at about EUR 51 million. Investments under these estimates cover the construction of two regional landfills and the upgrading of the main landfill Drisla in the capital city Skopje.

Finally, in the National Waste Management Plan of the Former Yugoslav Republic of Macedonia a set of comprehensive and ambitious targets is presented. These demonstrate the keen interest of the country for the swift improvement of its MSW management performance in the future years.

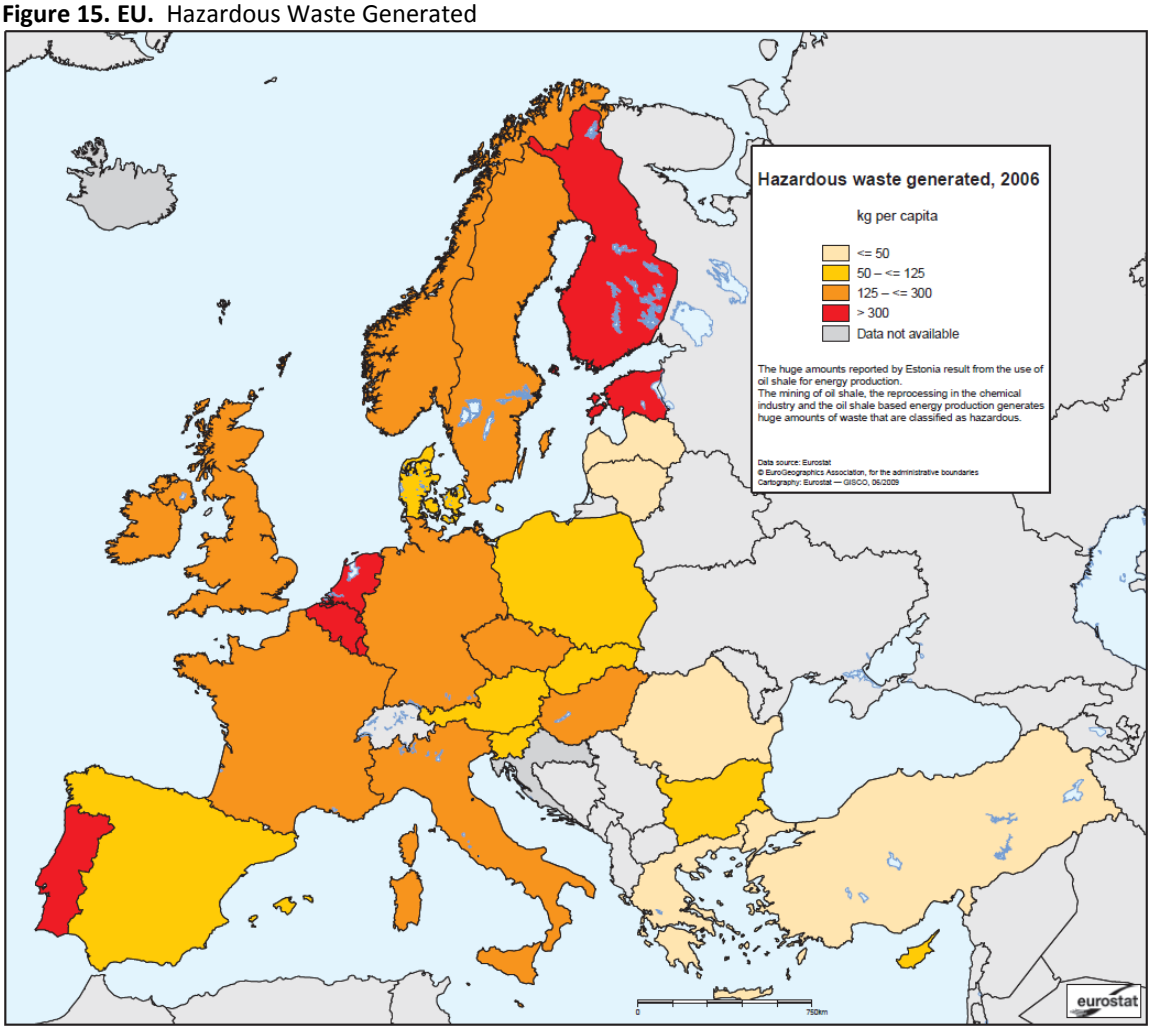
Table 6. Targets for MSW management in former Yugoslav Republic of Macedonia

Activity waste stream	Target	To be achieved by
Improving of collection of mixed municipal waste	Collection efficiency 90 *%*	2014
Landfill of waste:		
- landfill of MSW on temporary facilities (after conditioning)	100 *%* of the collected MSW	2014
- landfill of MSW on facility compliant with EU standards	50 % of the total MSW	2014
- reduction of biodegradable waste disposed on landfills (transition period needed)	Reduction to 75 *%*	2017
- reduction of me greenhouse gas emissions (landfills only)	Reduction for app 25 % of C02 eq.	2014
Packaging waste (transition period needed)	Recovery 60 *%* Recycling (minimum 55 %, maximum SO %)	2020

6.2.2.6 EU-hazardous waste generation. Aggregated Maps.

The figure below shows the hazardous waste generated according to the eurostat data. From this figure it can observed that all EU Balkan -Med countries do not show large volumes of hazardous waste generated per capita while Bulgaria and Cyprus comparatively show larger figures than Greece. Relevant data are not available for former Yugoslav Republic of Macedonia and Albania.

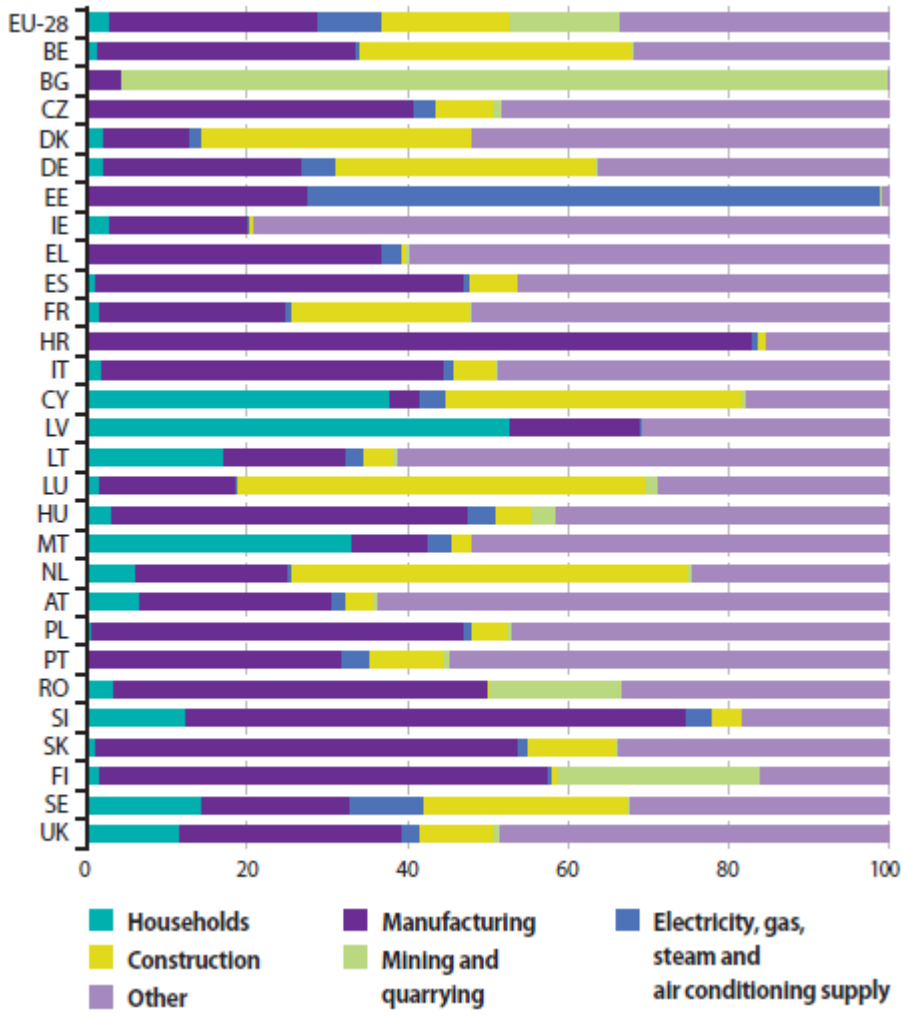
Figure 15. EU. Hazardous Waste Generated



(Source: EEA, 2006)

The figure below shows the hazardous waste generated by activity according to the eurostat data. From this figure it can observed that Bulgaria's largest share is mining and quarrying while manufacturing is in lower stage compared to all Member States. Construction and households generated a significant amount of hazardous waste in Cyprus in compared to the EU-28.

Figure 16. **Hazardous Waste Generation by Activity**



(source:Eurostat,2010)

6.2.3 Water Resources- Wastewater

6.2.3.1 Bulgaria

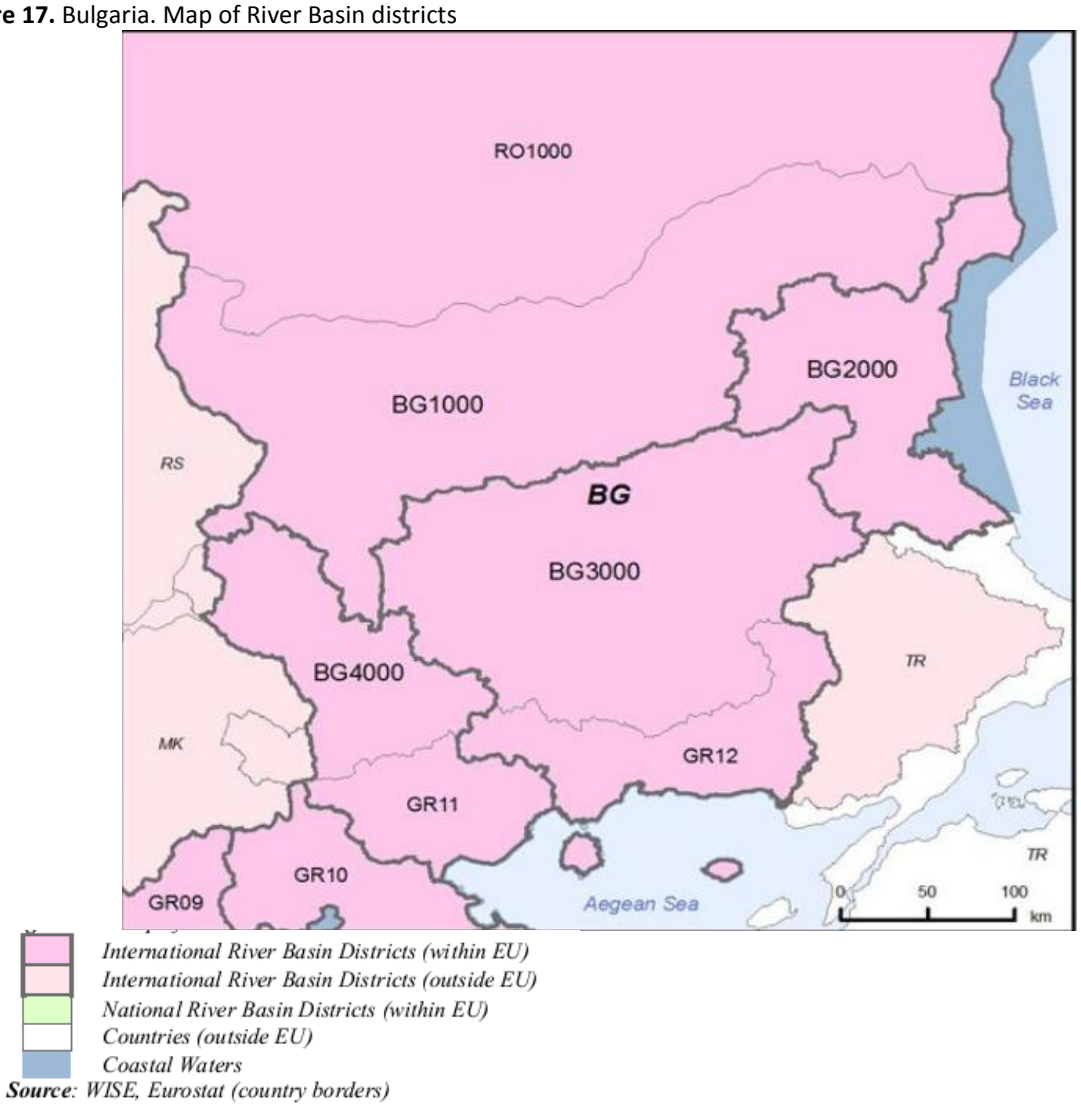
River Basin districts

The following analysis is based on EU publication" COMMISSION STAFF WORKING DOCUMENT Member State : Bulgaria. Accompanying the document. REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND.THE COUNCIL on the Implementation of the Water Framework Directive (2000/60 EC). River Basin Management Plans. (COM(2012) 670 final)

General

Bulgaria has a population of 7.6 million and a total surface area greater than 111910 km2. The north of Bulgaria is dominated by the vast lowlands of the Danube and the south by the highlands and elevated plains. In the east, it is bounded by the Black Sea. Bulgaria has four river basin districts.

Figure 17. Bulgaria. Map of River Basin districts



***Source**: WISE, Eurostat (country borders)*

Table 6. Overview of Bulgaria's River Basin Districts

RBD/ Κωδικός	Name/ Ονομασία	Size (km^2)/ Μέγεθος	Countries sharing borders/ Χώρες που συνορεύουν
BG1000	Danube	47235	CS, RO
BG2000	Black Sea	19004 (terrestrial) /6358 (marine)	RO,TR
BG3000	East Aegean	35230	EL,TR
BG4000	West Aegean	11965	CS, EL,MK

Source: River Basin Management Plans reported to WISE2

A number of catchments are shared with other Member States (Romania and Greece) and with third countries (Turkey, Serbia, FYR Macedonia) and there is a varying degree of cooperation with them.

Table 7. Transbounsdary river basins by category and % share in Bulgaria

Name international river basin/ Διεθνής Ονομασία	**National RBD/ Εθνικός Κωδικός**	**Countries sharing borders/Χώρες που συνορεύουν**	**Co-ordination category/Κατηγορία**					
			1		3		4	
			km^2	%	km^2	%	km^2	%
Danube	BG1000	RS, RO	47235	5.8				
Rezovska/ Mulludere	BG2000	TR			184	24.9		
Veleka	BG2000	TR			792	80		
Mesta-Nestos	BG4000	EL			2785	49.6		
Struma-Strvmonas	BG4000	EL, RS, MK					8545	47.2
Maritsa-Evros Meric	BG3000	EL.TR			35230	66.0		

Source: EC Comparative study of pressures and measures in the major river basin management plans in the EU.

Category I: Co-operation agreement, co-operation body. RBMP in place.
Category 2: Co-operation agreement, co-operation body in place.
Category 3: Co-operation agreement in place.
Category 4: No co-operation formalised.

Water categories

Three of Bulgaria's RBMPs (Danube, East Aegean, West Aegean) arc landlocked, therefore include only two water categories (rivers and lakes) while the fourth RBMP (Black Sea) includes all four water categories (rivers, lakes, transitional and coastal waters).

Work is on-going on the validation of biological and chemical information for identifying the typologies of transitional waters. Generally, the transitional waters are coastal lakes or estuaries with very high variability of salinity throughout the year.

The coastal waters arc delineated in the one-mile coastal zone.

Different approaches have been taken regarding the characterisation of the surface water bodies in the different RBDs. There is no national approach adopted. The typology for surface waters has been developed for rivers, lakes and coastal waters and for transitional waters.

By the time of development of the RBMP, there was no approved national methodology for the analysis and assessment of the biological quality elements (BQEs) in place in Bulgaria. As a result, the compulsory three-

year monitoring with a view to defining reference conditions was not implemented. Therefore, in the first RBMP the reference conditions have been specified as potential reference conditions.

The RBMP for the Danube RBD uses a typology based on the non-revised System "B" that is the basis of the latest typology developed at national level.

A revised version of System "B" has been used in the Black Sea and the East Aegean RBDs, partly validated by biological data. The process is still on-going and will be completed during the period of the first RBMP. The biological elements used are fish, macrozoobenthos, macrophytes and phytobenthos for rivers; phytoplankton, macrophytcs, macrozoobenthos and fish fauna for lakes.

For the transitional waters in the Black Sea RBD, reference conditions and a classification system have been developed for some quality elements but not for others (e.g. macrozoobenthos in river estuaries). They are not yet validated. In respect of coastal waters the process of specifying and validating the classification system is on-going but has not yet been completed. Biological elements used are phytoplankton, macrozoobenthos, macrophytes and angiosperms.

The typology adopted in the West Aegean RBD is based on the non-revised System "B" and it was practically invalidated by biological data. Since the end of 2001 the revised system has been introduced and the process of validation has been initiated.

Identification of significant pressures and impacts

There are substantial differences in the approach to determine significant pressures and impacts in the four basin districts, but mostly expert judgement is used.

In the Danube RBD a system of criteria is based on the magnitude of the pollution load (mainly urban and industrial wastcwater), type and effectiveness of the water treatment and the availability of permits. The most important sources of pollution arc untreated urban waste water, industrial waste waters discharged into lagoons and agricultural activities. For water abstraction a threshold of 150 000 m is used (drinking water abstractions not included).

In the Black Sea RBD point sources are assessed as significant when they fail to meet the emission standards. It is reported that there is no methodology for the assessment of the diffuse sources and it has been based on expert judgement. Water abstraction is assessed by the ratio of the abstracted volumes compared to the water flow or water volume of the reservoir, no numeric criteria were reported. There was no data reported on hydromorphological criteria. Specific other pressures considered were bottom trawling and invasive species.

In the East Aegean RBD, point and diffuse sources are assessed as significant when they have influence on the water status and change it. There is a general definition for significance of the point and diffuse sources,

the types are similar to those in the previous two RBDs. There are numeric criteria for the assessment of the significance of water abstraction, the used threshold is 150 000 m . The regulation activities and hydromorphological alterations are described in detail, but no numeric criteria are presented. Specifically the transfer of water among river basins is defined as criterion for significant pressure. Other pressures mentioned are old mines and erosion.

In the West Aegean RBD, a general approach for assessment of the pressures is given; the definition of the significant ones has been made by expert judgement. The water abstraction is assessed as a percentage of the water flow/volume, but no numeric criteria are reported. Hydromorphology is described in detail, but there is no information on how exactly it is used in the definition of significant pressures. A specific other pressure in this RBD is soil erosion.

Navigation and related activities, such as port development, dredging, etc., were not considered in the plan as a water use or pressure. Dredging was assessed as a potential significant pressure for the coastal waters in the Black Sea RBD.

Diffuse sources are a significant pressure for 42% of surface water bodies, and point sources for 35%. Water abstraction is a significant pressure for one fifth of surface water bodies. Almost a fourth of all surface water bodies are not subject to significant pressures. Significant differences are seen across the RBDs: Diffuse source pollution shows the highest percentage in the Black Sea RBD while water abstractions affect a high percentage of surface water bodies in the West Aegean RBD. In the Danube RBD all the pressure categories are significant for a relatively high proportion of water bodies.

Overview of status (Ecological chemical groundwater)

Almost 40% of all surface water bodies in Bulgaria have been assessed as being at good ecological status and nearly 5% arc at high status. One fourth of the surface water bodies are in poor or bad status. There are differences across RBDs, the highest proportion of poor and bad status WBs can be found in the Eastern Aegean RBD. More than three-quarters of Bulgaria's surface water bodies are in good chemical status and only 2% are in poor chemical status according to the information reported to WISE. However, it has to be noted that there are strong differences across the RBDs: three quarter of surface water bodies in the Black Sea RBD and one third of the surface water bodies in the Western Aegean RBD are in unknown status.

Bulgaria has reported that more than two thirds of its groundwater bodies have good chemical status while 30% of them are in poor status. There are large differences across the RBDs, for example, all groundwater bodies in the Western Aegean RBD arc in good status whereas 42% of the groundwater bodies in the Black Sea RBD arc in poor status. All groundwater bodies have been assessed.

Nearly all groundwater bodies are assessed at good quantitative status according to Bulgaria's reporting, there are only 7 groundwater bodies in poor status in the Danube RBD out of the total 170 in Bulgaria. All

groundwater bodies have been assessed. In total nearly one third of Bulgaria's surface water bodies were assessed as being of good status in 2009; according to the information reported to WISE and later corrected by the Bulgarian authorities the number of surface water bodies of good status is expected to increase by 34%, in 2015 reaching good status for nearly two third of the surface water bodies. There are differences across the RBDs. Two thirds of the groundwater bodies were assessed as being of good status in 2009. There is a slight improvement expected in the Black Sea RBD by 2015, but no improvement is expected in the Danube RBD (currently 64% of the groundwater bodies are in good status) and in the Eastern Aegean RBD (60% of groundwater bodies are in good status).

Water Resources

There is no evidence of any improvement in river quality since 1996. Even though the pressure from industry and agriculture on water and water sources has continued to decline. Pollution treatment capacity has not significantly expanded, nor has the operation of existing facilities improved, in addition to the financial problems that monitoring faces, the raw data are not transformed into information describing the water quality throughout the territory, so it is difficult to give a precise picture of the overall situation

Water use.

According to EEA (2010) data the total amount of water abstracted during last decade was around 6-7 billion cubic metres a year. Around 7-10% abstracted from groundwater.

6.2.3.2 Greece

River Basin districts

The following analysis is based on EU publication” COMMISSION STAFF WORKING DOCUMENT Member State : Greece. Accompanying the document. REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND.THE COUNCILon the Implementation of the Water Framework Directive (2000/60 EC). River Basin Management Plans. {COM(2012) 670 final}”

General

Greece forms the southern extremity of the Balkan Peninsula in south-east Europe. Its territory has an area of 131 957 km* and includes more than 2 000 islands in the Aegean and Ionian seas of which only around 165 islands are inhabited. Greece has a population of 11.2 million. Greece is divided into 13 Administrative Regions.

Figure 18. Greece. Map of River Basin districts

International River Basin Districts (within EU)
International River Basin Districts (outside EU)
National River Basin Districts (within EU)
Countries (outside EU)
Coastal Waters

***Source**: WISE, Eurostat (country borders)*

Table 8. Overview of Greece's River Basin Districts

RBD/ Κωδικός	**Name/Ονομασία**	**Size(km^2)/Μέγεθος**	**Countries sharing borders/ Χώρες που συνορεύουν**
GR01	Western Peloponnese	7232	-
GR02	Northern Peloponnese	7426	-
GR03	Eastern Peloponnese	8420	-
GR04	Western Sterea Ellada	10432	-
GR05	Epirus	10007	AL
GR06	Attica	3139	-
GR07	Eastern Sterea Ellada	12268	-
GR08	Thessalia	13153	-
GR09	Western Macedonia	13585	AL, MK
GRIO	Central Macedonia	10147	M K
GRI 1	Eastern Macedonia	7308	BG, MK
GRI2	Thrace	11159	BG, TR
GRI 3	Crete	8301	-
GRI4	Aegean Islands	9118	-

Four major rivers originate in neighbouring countries. The rivers Evros (GR12), Nestos (GR12) and Strymonas (GR11) originate in Bulgaria, while river Axios (GR10) originates in former Yugoslav Republic of Macedonia. These rivers provide an inflow of 34% of the total yearly runoff of Greece.

River Aoos (GR05) originates in Greece and discharges in Albania. Lake Prespa (GR09) is on the border with Albania and former Yugoslav Republic of Macedonia.

Four major rivers originate in neighbouring countries. The rivers Evros (GR12), Nestos (GR12) and Strymonas (GR11) originate in Bulgaria, while river Axios (GR10) originates in former Yugoslav Republic of Macedonia. These rivers provide an inflow of 34% of the total yearly runoff of Greece.

Table 9. Transboundary river basins by category and % share in Greece

Name international river basin/ Διεθνής Ονομασία Υδατορεύματος	**National RBD/ Εθνικός Κωδικός**	**Countries sharing borders/ Χώρε που συνορεύουν**	**Co-ordination category/Κατηγορία**					
			2		3		4	
			km^2	%	km^2	%	km^2	%
Lake Pre spa (Part of Drin/Drim Sub-basin)	GR09	AL,MK	291	33.0				
Aoos/Vjosa	GR05	AL	2154	33.0				
Mesta-Nestos	GR12	BG			2843	50.7		
Struma-Strimonas	GR11	BG			7281	40.3		
Maritsa-Evros Meric	GR12	BG,TR					3340	6.0
Axios/Vardar	GR10	MK.RU					3212	13.5

Source: EC Comparative study of pressures and measures in the major river basin management plans in the EU.
Category I: Co-operation agreement, co-operation body. RBMP in place.
Category 2: Co-operation agreement, co-operation body in place.
Category 3: Co-operation agreement in place.
Category 4: No co-operation formalised.

Identification of significant pressures and impacts

In Greece, the driving forces represent major social, demographic and economic developments, the corresponding changes in lifestyle, and overall consumption and production patterns. Environmental pressures on surface freshwater ecosystems are almost entirely anthropogenic. They are related, directly or indirectly, to human activity in the proximity or the greater catchment area of the water body. The major sources of pollution of surface and groundwater are as follows

- Urban wastewater discharge
- Industrial wastewater discharge
- Pollution from agricultural activities (use of fertilizers)
- Use of pesticides and insecticides
- Excessive fishing
- Pollution from aquaculture
- Nuisance from building activities
- Nuisance from mining activities.

Overview of status

The state of freshwater may be described by adequate structural (e.g. river morphology), physical (e.g., temperature), chemical (e.g., phosphorus and nitrogen concentrations) and biological (e.g. phytoplankton or fish abundance) indicators. Following any possible changes in the state, society may suffer positive or negative consequences.

Water Resources

The state of Greece's freshwater bodies is generally good. Water quality is commonly fit for various uses (irrigation, industry, production of drinking water). Greece has an especially good record in terms of water quality at the more than 2000 coastal sites designated under the EU Bathing Water Directive: virtually all sites comply with mandatory values and 96-98% also comply with the more stringent guide values. However, Greece still faces serious water challenges, in particular in terms of its agricultural water use, which represents vast majority of the overall abstraction.

Water use in agriculture

With about 1.4 million hectares, Greece has the fifth-largest irrigated area in OECD-Europe (after Turkey, Spain, Italy and France). During the review period, the share of agricultural land served by irrigation systems remained stable at 17%, one of the largest shares in OECD (although as much as one-third of that area is not actually irrigated). Most of Greece's irrigated lands are planted in water-intensive crops that also receive price support under the EU Common Agricultural Policy, i.e. cotton (364 000 ha in 2005), maize (247 000 ha) or sugar beet (41 000 ha). Around 60% of the total irrigation demand is met by surface water, whereas the rest is met by groundwater. The use of groundwater for irrigation purposes is substantially above recharge rates.

Urban Water Use

An estimated 98% of the population is connected to a metered water supply system and the current infrastructure meets demand. Nevertheless, as in many countries, much of the old and decaying distribution networks need to be replaced. An additional problem on some of Greece's many islands is that the local water resources cannot meet the demand caused by the influx of tourists during summers, and tankers are used to bring in water from the mainland. Desalinisation units are operating in a number of islands.

The quality of the raw water used for the preparation of drinking water is generally acceptable, as for example in Lake Marathona, 10 where raw water meets Al standards (only requiring rapid filtration and disinfection), the highest category in terms of EU Directive 75/440/EEC. Even so, in several instances drinking water sources have been compromised due to a range of causes, such as salt-water intrusion in coastal

aquifers caused by overpumping, or high nitrate concentrations as a result of excessive application of nitrogenous fertilisers.

Urban Waste Water treatment

According to Greek authorities, 90% of the about 8 million inhabitants living in settlements greater than 2 000 population equivalents were connected to a sewerage network at the end of 2008, and 91% had a wastewater treatment plant in their area. However, as of November 2008, 12 agglomerations greater than 15 000 population equivalents did not have the necessary collection and treatment systems.The wastewater load generate by smaller settlements, where about 2.9 million population lives, is collected by individual systems (e.g. septic tanks) and transferred to the nearest treatment plant. In some small settlements cesspools are still used.

Transboundary water resources

Four major rivers originate in neighbouring countries. The rivers, Evros (GR12). Nestos (GR12) and Strymonas (GR11) originate in Bulgaria, while river Axios (GR10) originates in former Yugoslav Republic of Macedonia. These rivers provide an inflow of 34% of the total yearly runoff of Greece.

River Aoos (GR05) originates in Greece and discharges in Albania.

Lake Prespa (GR09) is on the border with Albania and former Yugoslav Republic of Macedonia.

6.2.3.3 Cyprus

River Basin districts

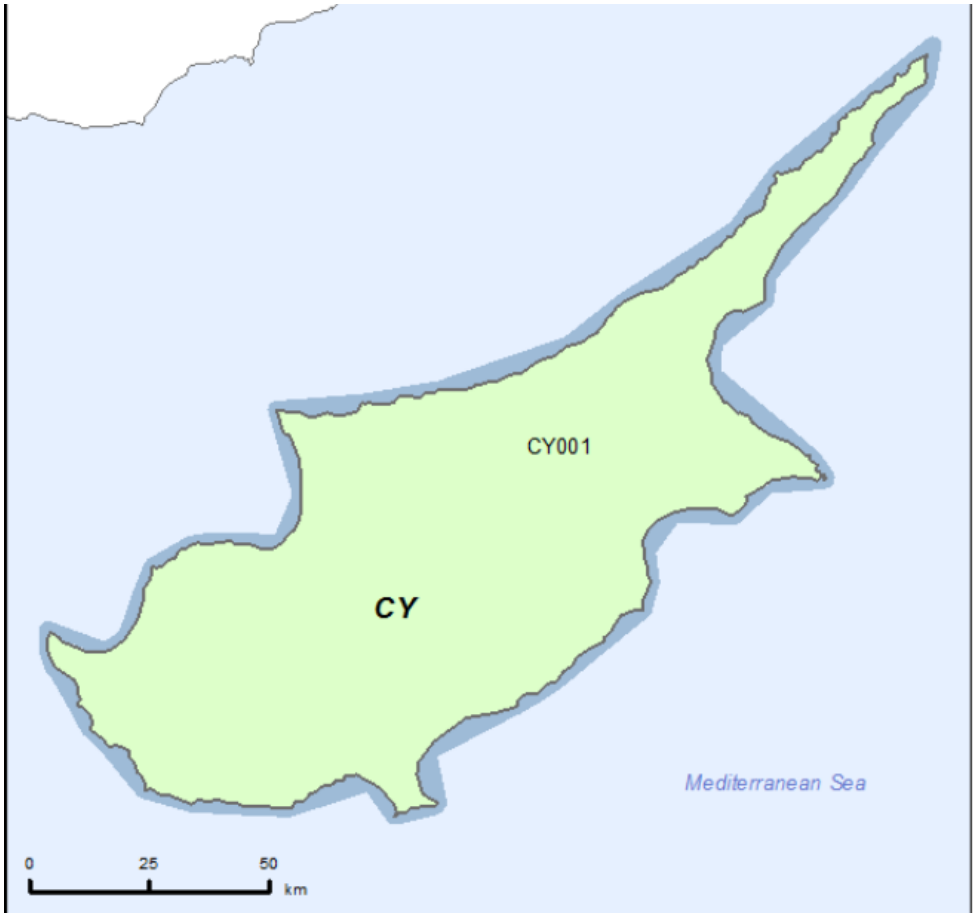
The following analysis is based on EU publication" COMMISSION STAFF WORKING DOCUMENT Member State : Cyprus. Accompanying the document. REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND.THE COUNCILon the Implementation of the Water Framework Directive (2000/60 EC). River Basin Management Plans. (COM(2012) 670 final)

General

Cyprus has a population of 0.8 million and a total surface area of 9,250 km2. Cyprus is the largest island in the eastern Mediterranean and is situated south of Turkey. The two main mountain ranges are the Pcntadactylos in the north and the Troodos in central and southwestern part of the island. Between them is the fertile plain of Messaoria. Cyprus has one river basin district that covers the country's whole territory.

The Cyprus RBD does not share catchments with other Member States or with other countries.

Figure 19. Map of River Basin districts



International River Basin Districts (within EU)
International River Basin Districts (outside EU)
National River Basin Districts (within EU)
Countries (outside EU)
Coastal Waters
***Source**: WISE, Eurostat (country borders)*

Water categories

The water categories those are present in Cyprus are rivers, lakes and coastal waters. The majority of water bodies are small water bodies. No transitional water bodies were delineated. However in Cyprus there are specific water bodies, salt lakes which do not fall under the category 'transitional waters'. These salt lakes are unique ecosystems where water availability depends directly on rainfall, resulting in large salinity fluctuations, and in complete dryncss of the lakes during long dry periods. The salt content of these water bodies is a result of the saline nature of the substratum, not of the inflow of scawater, since there is no connection to the sea. The reference to these water bodies as "coastal lagoons" in the RBMP has followed the Habitat's Directive characterization, where they were assigned as "Habitat 1150 - Coastal Lagoons".

Identification of significant pressures and impacts

The identification of pressures was carried out for the implementation of Article 5 of the WFD. The plan does not include concrete thresholds to define significant pressures. An example of a criterion used in the determination of the significance of a pressure was whether IPPC facilities discharge their effluent lo a suitable treatment plant or not. Expert judgment was used in other instances. Wide range of pressures was identified with expert judgment. The pressures identified under Article 5 WFD were updated in the framework of the development of the RBMP. Diffuse source pollution is significant pressure in 43% of surface water bodies. 53% of surface water bodies are not subject to significant pressures.

Overview of status (Ecological chemical groundwater)

83 surface water bodies in Cyprus have been assessed as being at good or better ecological status; 4.7% of all the surface water bodies are in high status. For 45 surface water bodies the status has not been determined. The water bodies with unknown status are mainly small water bodies with episodic surface flows that occur on average less than once a year and which Cyprus is considering deleting as water bodies in the second RBMP cycle.

Three quarters of the surface water bodies arc reported to be in good chemical status in Cyprus and only less than 5% failing good status. For 56 surface water bodies, the chemical status is unknown for similar reasons to that mentioned above for ecological status.

More than half of the groundwater bodies have good chemical status in Cyprus while 8 GWBs are in poor status. Only one groundwater body have not been assessed.

Only every fifth GWB is assessed at good quantitative status in Cyprus while three quarters of them are reported to be in poor quantitative status. The status of only one GWB is unknown.

39% SWBs were assessed as being of good status in 2009. According to the information reported to WISE, the number of good status is expected to increase to 58% in 2015.

For groundwater bodies, only 20% were assessed as being of good status in 2009, and the proportion is not expected to increase in 2015. This shows a lack of ambition in improving the status of groundwater in Cyprus that is primarily related to a reluctance to tackle quantitative problems.

Rivers

Most rivers originate in the Troodos area. The seasonal distribution of surface runoff follows the seasonal distribution of precipitation, with minimum values during the summer months and maximum values during the winter months. As a result of the Eastern Mediterranean climate with long hot summers and a low mean annual precipitation, there are no rivers with perennial flow along their entire length. Most rivers flow 3 to 4 months a year and are dry during the rest of the year. Only parts of some rivers upstream in the Troodos areas have a continuous flow (rivers of Xeros, Diarizos, Kargotis, Marathasa, Kouris and Germasogeia). Most

rivers have a rather steep slope except for the rivers in the lowland areas along the southern coast. Most part of the rivers is, however, at mid-altitude.

Lakes

As a result of the dry Mediterranean climate, there are only 5 natural lakes, which are brackish or salt. The other water bodies are created by human as a result of damming of a river or the creation of storage basins. All the lakes in Cyprus can be characterized as dynamic systems. The natural salt and brackish lakes dry up regularly, but not every year. Both the salt and brackish lakes contain typical species for these conditions. The amount of water in the reservoirs and storage basins is depending on the rainfall and use. The reservoirs are also mainly filled by the inflow of water from rivers. During winter they fill up but in summer most of the water is used and the water level declines. Consequently, the water level and size of these lakes is variable. As all reservoirs and storage basins are structured with the objective to provide water for drinking or irrigation, all these lakes have the possibility to dry out, which they often do in reality.

Groundwater bodies

Most of the Island aquifers are phreatic, developed in river or coastal alluvial deposits. These are the biggest and the most dynamic aquifers, replenished mainly by river flows and rainfall. There are three large coastal aquifers that include all the perpendicular riverbeds. The coastal parts of these aquifers are composed by sands, silts, limestones, conglomerates and clays. Riverbeds consist of alluvial deposits, gravels, sands and silts. These aquifers are phreatic and are around 30 m deep. Apart from the large but not so productive aquifer of the Troodos igneous rocks, other aquifers exist in gypsum, sandstones, limestones and chalks. These aquifers are mainly phreatic with some parts being semi-confined to confined. These parts are covered by silty-clayey layers or marls, sandy marls. It is noted that the aquifer of Troodos Mountain has been developed generally in low permeability ophiolites and locally in medium permeability fractured zones of igneous rocks and it is therefore confined in places.

Transboundary Water Resources

The Cyprus RBD does not share catchments with other Member States or with other countries

6.2.3.4 Albania

Quality of surface water and groundwater

Due lo the fact that monitoring of both emissions and water quality has become much less frequent, and the effect of the economic changes in recent years could not be assessed, the situation concerning water quality is not well known.

In general, the quality is often a problem due to pollution through discharge of untreated wastewater from urban settlements, as well as from industries with obsolete technology and by the extensive use of chemical

fertilisers and pesticides in agriculture. The uncontrolled dumping of urban waste on the banks of rivers exacerbates the problem of the quality of surface water.

This high pollution load in surface water is leading to a deterioration of groundwater quality and especially concerns low-lying areas, where most of the population lives and most industrial and agricultural activities take place.

The above mentioned problems in quality of both surface water and groundwater may put constraints on the use of water, especially:

- From rivers such as Kiri River (industrial wastes), Mati River (copper mining), Gjanica River (oil extraction), and Ishmi, Erzeni, Drini and Semani rivers (industrial and domestic wastes).
- The generally high values of NB05, NH4 and P-total in Ishmi River and to some extent in Erzeni River document especially the high organic pollution load resulting mainly from domestic sewage (Figures 6.1, 6.2 and 6.3):
- From groundwater near Lezhe and Lac, (saline intrusion) and along Shkumbini and Gjanica rivers (chemical pollution)
- From Lake Ohrid near Pogradec (urban wastes).

Quality of marine water

Concerning the quality of marine waters at coastal resorts, monitoring results for 2009 in the coastal area of Dunes indicate not compliant to standards water quality, on the basis of the WHO classification for bathing seawater. The quality of marine waters measured at 21 monitoring stations does not meet the status of excellent or good, 10 per cent meet sufficient quality and 90 per cent meet poor quality - which in fact requires immediate action**.**

Public water supply

Most of the population (85 per cent) is supplied with water through a public system, at their own houses in urban areas and essentially from standpipes and public taps in rural areas. Access to a centralized system of drinking water supply is established in 62 municipalities, which have approximately 60 per cent of the population.

However, the water supply infrastructure in general is inadequate and poorly maintained. Together with a lack of metering and COOPERATION control, this is resulting in significant water losses, estimated to be more than 60 per cent in all cities. Insufficient storage capacities and frequent cuts in electricity make water supply in urban areas intermittent, and wastewater from parallel sewer lines increases the risks of contamination in the old supply pipe.

Trans- boundary water resources

Albania shares rivers and lakes with neighboring countries. The Prespa lake is shared between Albania and Greece also the lake Ohrid. Aoos is a trans boundary river between Albania and Greece. The first 80 kilometres are in Greece and the remaining 182 kilometres are in Albania.

6.2.3.5 Former Yugoslav Republic of Macedonia

River Basin districts

There are four river basins in Former Yugoslav Republic of Macedonia: Vardar, Crn Drim, Strumica, and Juzna Morava. The river basin areas of the River Vardar and River Strumica that flow towards the Aegean Sea cover 86.9 % of the total territory of Former Yugoslav Republic of Macedonia.

Surface and underground water.

The country has a very rich network of rivers, the status of some of which is poor. Urban wastewater is the main pollution source, discharged directly into the rivers and streams without treatment. Other important pollution soiuxes are wastewater from chemical, food processing, ferrous and leather industry as well as from animal farms, increasing organic pollution (e.g. from food processing and slaughterhouses) and heavy metals content (Cr,Fe, Cd, Pb and Zn). Severe organic and microbiological contamination, as well as high levels of toxic elements (Cd, Cr, Pb and Zn) have been noted in the Vardar river, which supplies 75% of the country's total water resources and is also the major recipient of all types of wastewater (communal, industrial and agricultural). The quality of reservoirs which provide drinking or industrial water (Mavrovitsa. Strezhevo and Turiya) has been worsened by natural eutrophication and in particular, by inappropriate fish stocking and exploitation.

Lakes

There are three important lakes former Yugoslav Republic of Macedonia in the country: Ohrid Lake, which represents the most significant lake ecosystem in Europe (protected by UNESCO). Prespa Lake, which is the second largest natural lake, and the small tectonic Dojran lake. The status of Ohrid Lake is slightly better than the other lakes, nevertheless it is still affected by pollution from waste water. Efforts have been made to collect waste water to by-pass discharge to the lake, but concern remains over discharges from the Albanian shore. Prespa Lake is experiencing a reduction of its water level and its subjected to increasing eutrophication. The status of the Doyran Lake is the most alarming. Since 1988,. the level of the water has drastically fallen, with concerns over abstraction for agriculture on the Greek side, and the lake has experienced accelerated eutrophication. Samples collected between 1997 and 2005 did not meet bathing water physical-chemical standards.

Water Resources in former Yugoslav Republic of Macedonia

The main water resources that provide clean fresh water accumulation are the three natural lakes-Ohrid, Prespa and Dojran. In addition there are also 35 rivers and 53 overall artificial and natural lakes. Although Former Yugoslav Republic of Macedonia is rich with drinking water and there is no problem with the amount of water in the country, there are problems with the infrastructure and the poor management of the water resources that prevent the water to reach in some villages.

Trans-boundary Water Resources

Former Yugoslav Republic of Macedonia shares rivers and lakes with neighbouring countries and due to this a high priority is given on the cooperation and the use of Transboundary Rivers and lakes. The lake Ohrid is shared between former Yugoslav Republic of Macedonia and Albania. The two countries have dedicated on improving the management cooperation and to reform the management regimes for the region. In the cooperation number of environmental NGO's has taken part as well. Furthermore, the lake Prespa is shared between Former Yugoslav Republic of Macedonia, Albania and Greece.

Waste water.

Around 50-60% of households are connected to the public sewage system-while around 20% use septic tanks and 10% discharge their wastewater directly. Connection to the public sewage system is relatively low, especially considering the higher connection to the water supply system (close to 90%). Six water treatment plants are in place: M. Brod. Kumanovo. Ohrid-Struga. Resen. Dojran and Sv.Nikole. Overall they can serve about 280.000 person equivalent (p.e.). but not all of them are entirely compliant with the requirements of the 92/271/EU Directive. No data are available on the urban wastewater quality, due to lack of systematic monitoring and of lesal enforcement.

Several investment plans in wastewater treatment management are currently at work, including waste water infrastructure financing projects through national and international funds (from Switzerland, Austria. Germany etc).

Water and waste water

The country's rivers are exposed to contamination from agriculture and industrial activities, especially the metallurgical, chemical and mining industries. Water quality is also seriously affected by the lack of waste water treatment, as most towns do not possess treatment plants, and effluent from industrial and mining facilities, livestock farms and landfills has been largely uncontrolled.

Drinking water.

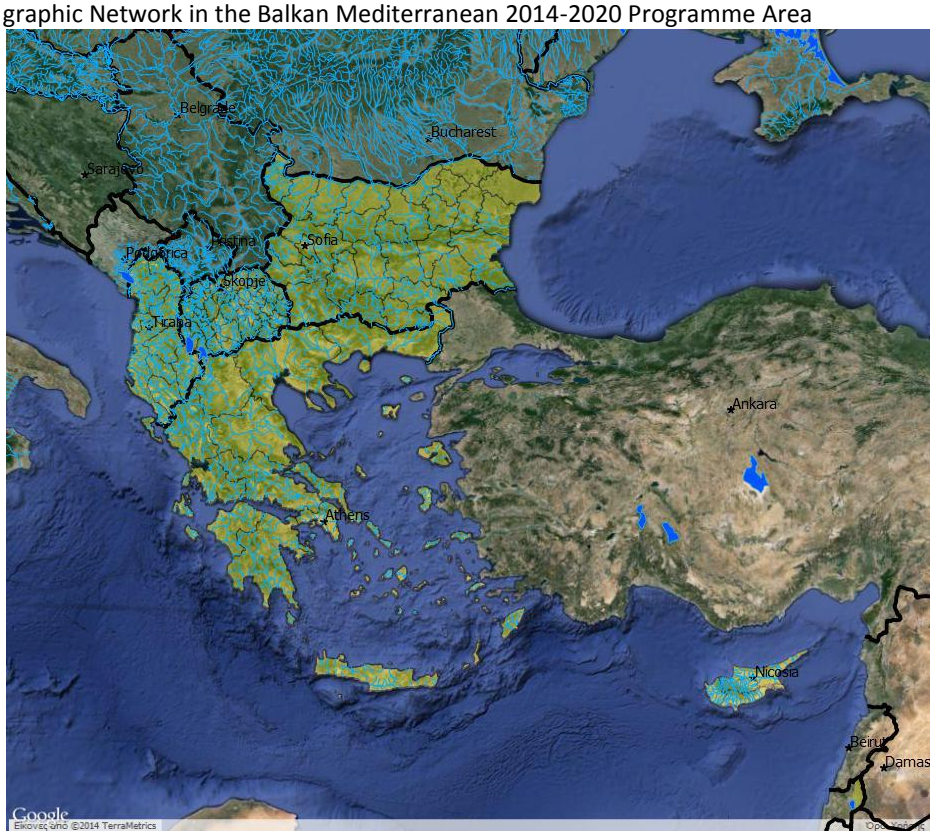
The percentage of connections to public water supply systems is relatively high in urban areas - ranging from 82% (Berovo. Kuinanovo) to 100% (Skopje-Centre municipality). The connection in rural areas instead varies

substantially, from 10% up to 100%. According to the 2002 Census, overall the percentage of households connected to public water supply systems was 88%.

6.2.3.6 Hydrographic Network in the Balkan Mediterranean 2014-2020 Programme Area 2014-2020

At the following picture the Hydrographic Network in the Balkan Mediterranean 2014-2020 Programme Area is depicted.

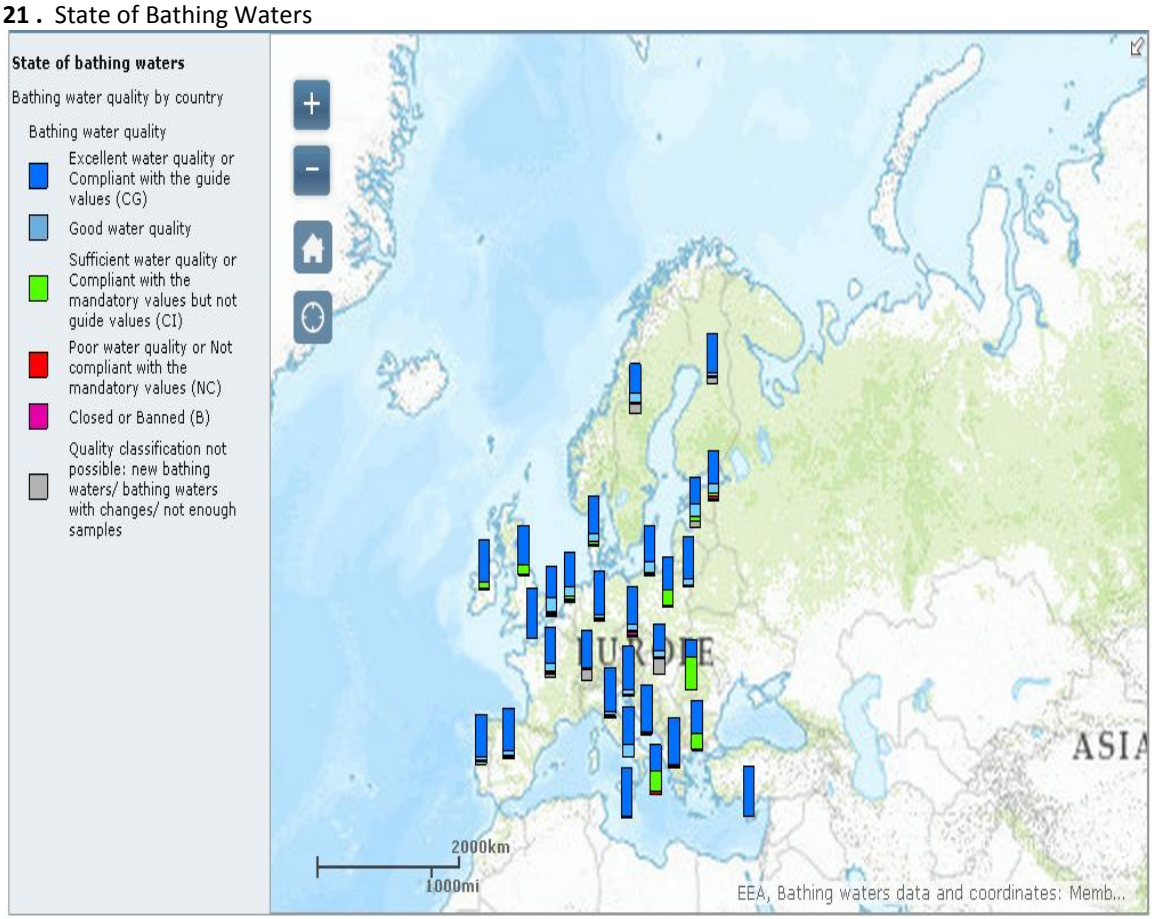
Figure 20. Hydro graphic Network in the Balkan Mediterranean 2014-2020 Programme Area



6.2.3.7 EU-Bathing Waters by Country

The following figure shows the state of bathing waters by country. We can see that the study area has in general good water quality.

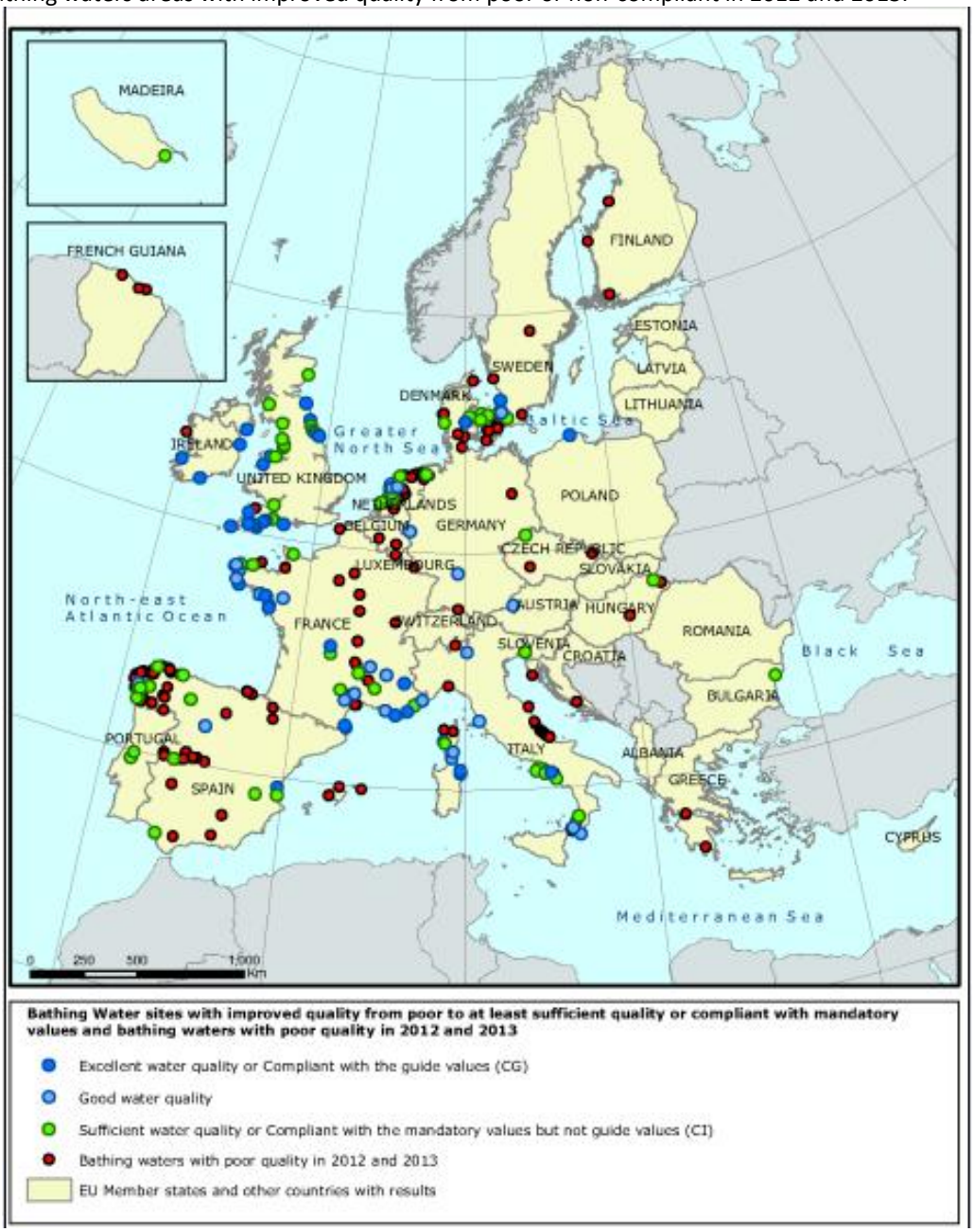
Figure 21 . State of Bathing Waters



(source: Environmental European Agency)

The next figure illustrates bathing water sites that were poor or non-compliant in 2012 and their status in 2013

Figure 22. Bathing waters areas with improved quality from poor or non-compliant in 2012 and 2013.



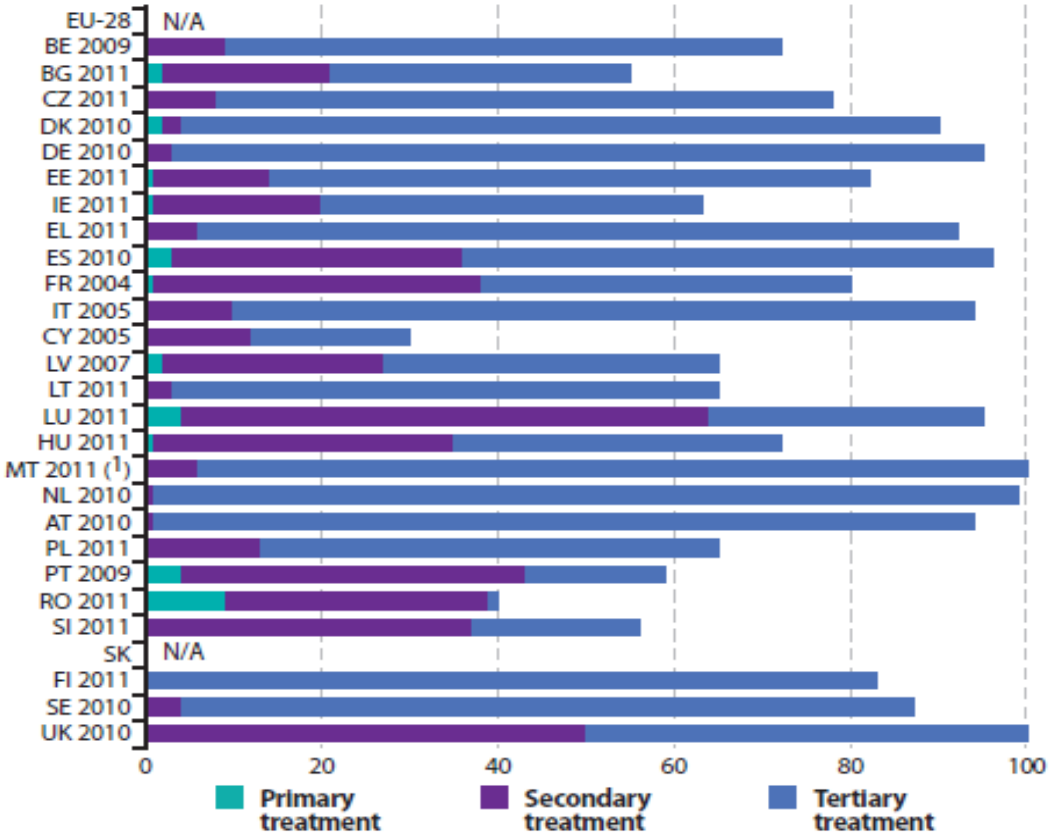
(source: Environmental European Agency)

6.2.3.8 EU- Aggregated Data –Population Connected to urban Wastewater Treatment.

The figure below shows the population connected to urban wastewater treatment according to the Eurostat data. From this figure it can observed that Cypru's tertiary treatment comparatively show smaller figures than Eu-28. Only 35% of population in Cyprus is connected to tertiary treatment. In parallel, the 20 % of population is connected to to secondary wastewater treatment. Bulgaria has a better status in compared to

Cyprus but smaller figure than other Members States. Greece presents a good status in comparison with Cyprus and Bulgaria. More than 80 % of population in Greece is connected to urban tertiary wastewater treatment. Relevant data are not available for Former Yugoslav Republic of Macedonia and Albania.

Figure 23. Population Connected to urban wastewater treatment



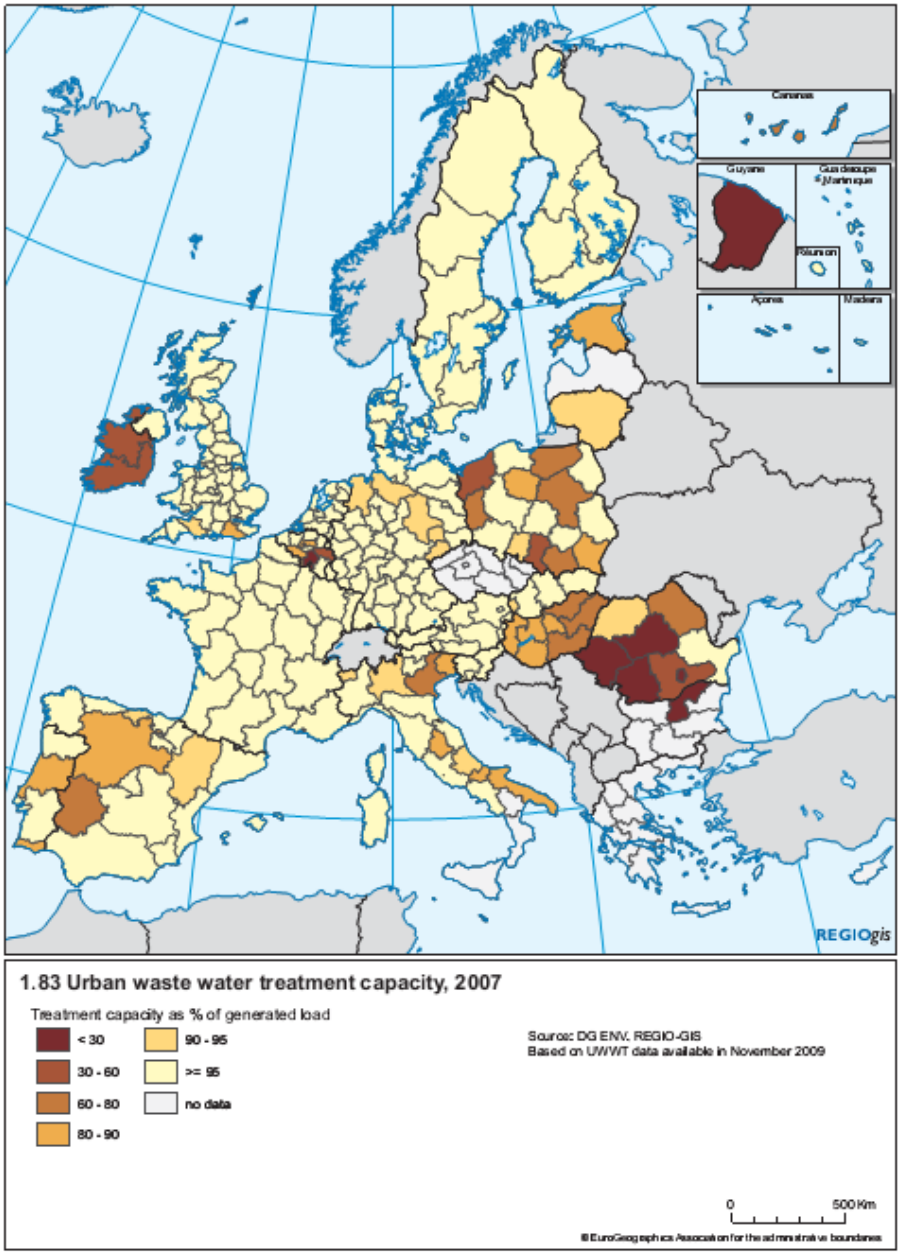
(source:Eurostat, 2011)

6.2.3.9 EU- Aggregated Data – Urban Wastewater treatment capacity.

Treatment of wastewater is necessary to preserve the quality of water reserves, for drinking, use by industry, tourism and agriculture and for environmental reasons generally. For urban areas, treatment, which removes most contaminants from sewage, is mandatory so as to protect the natural environment.

Overall, close to 90% of urban waste water is treated across the EU-15. However gaps still remain. In the case of the EU-12, the Accession Treaties provide for staggered transition. Wastewater treatment is still well under 100% in a number of urban areas in the EU-12 (following figure).

Figure 24. EU-Urban Wastewater treatment capacity



6.2.4 Marine Pollution

6.2.4.1 EU Maritime Strategy and Cohesion strategy.

EU Integrated Maritime Policy is a new approach developing all marine-related activities in a sustainable manner. It uses cross-sectoral tools such as maritime spatial planning, integrated surveillance and marine knowledge, which will improve the way that our oceans are managed. The Commission has also made first steps towards implementing this policy on a regional basis, notably in the Baltic Sea and the Mediterranean.
The objective of this new approach is to identify EU actions that have an impact on the sea and to promote coherence across sectors and areas of activity. In addition, it aims to boost the maritime economy, protect and restore the marine environment, strengthen research and innovation and foster development in coastal and outermost regions'VThe success of this approach depends to a large degree on its interaction with other policies. For example, Cohesion Policy during the 2007-2013 Programmingperiod had already funded up to end-December 2008 a total of 1 131 projects relating to maritime policy representing an investment of almost EUR 1.2 billion14.

6.2.4.2 Bulgaria

The following analysis in based on the recent study of Milieu ltd for the EU publications

- "Article 12 Technical Assessment of the MSFD 2012 obligations Bulgaria. 7 February 2014. Final version".
- "Article 12 Technical Assessment of the MSFD 2012 obligations Black Sea. 7 February 2014. Final version".

It must be emphasized that this is a preliminary assessment and still there are gaps in knowledge of Marine Pollution in Bulgaria.

Some additional information were extracted from BSC publications

- Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (1996)
- Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea Adopted in Sofia, Bulgaria, 17 April 2009.

Biodiversity

In relation to the aspect Biodiversity, Black Sea marine region allows Bulgaria to identify cases the so-called "exceptions" to MSFD, which include "natural causes". According to Bulgaria, for the Black Sea marine region, this is particularly relevant with regard to the deep-sea coastal slope and abyssal plain, which therefore could

be excluded from the definition of good environmental status (or the setting of environmental targets). The primary reason for the omission is the presence of natural anaerobic conditions and toxic hydrogen sulphide gas at a depth of 150-200 m, preventing the development of biological communities of aerobic organisms, except for some anaerobic bacteria below this boundary.

Non-indigenous Species

In relation to the aspect Non-indigenous Species (NIS), Bulgaria reports that Good Environmental Status (GES) would be achieved if to maintain low values of biomass, reduction of the blooms and the range of distribution, indicating that the current status is considered as good with a biomass below 4 g/m3. It applies to coastal waters and Bulgaria has indicated that further development is needed.

Eutrophication

In relation to the aspect Eutrophication, nutrients concentrations seem to be in a considerable magnitude and in order to achieve GES should decrease in the coastal area (Romania also states that nutrient concentrations should decrease near pollution sources close to land) and nitrogen should decrease in the shelf area. The eutrophication problem is amplified by the almost land-locked nature of the Black Sea.

In Black Sea in general there is a decrease in the importance of agriculture as shown by decreasing trends in livestock numbers and a shift from major livestock farms to smaller-scale or subsistence-level farming. Inorganic fertiliser application rates also appear to have fallen substantially, with large areas of land (in some countries at least) left fallow. However, indicators suggest that this decline in agricultural productivity may have bottomed-out, so a gradual re-intensification of agricultural practices may begin in the near future.

Direct discharges from large municipal/industrial plants to the Sea are equivalent to only small proportion of nutrients discharged to the Sea via rivers, of which the Danube is by far the most important. Available information also suggests that atmospheric deposition of nitrogen to the Sea may be of a similar order of magnitude to river loads, but there is considerable uncertainty over the data used, with a clear need for updating and harmonisation of monitoring protocols.

Based on the data reported by the Black Sea coastal states and the results presented in the 2007 Black Sea TDA, it is suggested that more than 80% of the river-borne inorganic nitrogen load and around 50% of the river-borne phosphate load enters the Sea from the Danube. However, the Danube has by far the most rigorous nutrient loads monitoring Programme of all rivers, and it is likely that nutrient loads from other rivers are under-estimated by comparison. The importance of freshwater nutrient inflows to the Sea of Azov could not be estimated because of a lack of data for the Kerch Strait.

Between 1996 and 2005 there has been no evidence of a change in river-borne DIN loads to the Sea, albeit with a moderate (15%) decrease in river-borne PO4-P loads over the same period. However, the level of confidence associated with the PO4-P load decrease is very low, due to the large inter-annual variability.

Considering that the Danube is such a major pathway of nutrient input to the Black Sea and that phosphorus emissions to the Danube are estimated to have fallen by approaching 50% between 1990 and 2000, and nitrogen emissions by about 20% between 1985 and 2000, this may appear to be disappointing. However, reductions in nutrient loads/concentrations in the upper and middle reaches of the Danube have been observed since 2000, and these improvements are expected to continue downstream in future years.

Contaminants

Relatively high contamination levels of some pesticides, heavy metals and PCBs are present at specific sites in the Black Sea in general (and in Bulgaria), with illegal dumping/discharges (particularly of agrochemicals) being recognised as a particular problem.

A huge increase in the volume of oil being transported across the Black Sea and oil/gas extraction from beneath the Sea itself have greatly increased the risk of oil pollution. This presents two types of problem: (i) localised chronic pollution stemming from frequent but minor releases of oil; and (ii) acute pollution resulting from major oils spills. Remote sensing data show that the majority of oil spills occur along major shipping routes, suggesting that shipping, rather than land-based oil installations have been the principal cause of concern. However, a single large spill from ships, platforms or land-based oil installations could severely impact biota and the economies of all coastal countries.

6.2.4.3 Greece

The following analysis in based on the recent study of Milieu ltd for the EU publication "Article 12 Technical Assessment of the MSFD 2012 obligations Greece. 7 February 2014. Final version". It must be emphasized that this is a preliminary assessment and still there are gaps in knowledge of Marine Pollution in Greece.

Biodiversity

Main Pressures (physical loss and physical damage)are land claim defence, tourism and cables and pipelines, and main features impacted are littoral rock and sediment, shallow coarse and mixed sediment, mud, rock and sand, shelf coarse and mixed sediment and sand. Two ecosystems are mainly affected — the pelagic ecosystem and the benthic ecosystem and the main pressures affecting the ecosystems are selective extraction of species and nutrient enrichment for the pelagic ecosystem and physical loss and damage and nutrient enrichment for the benthic ecosystem.

Greece has carried out an initial assessment on the habitats in the three marine sub-regions. The main predominant habitats — shallow sublittoral sand, mixed and coarse sediment and mud, shelf sublittoral mud, mixed and coarse sediment and sand — are listed and briefly described (in the paper report) and the main pressures identified (including physical loss and damage, nutrient enrichment, introduction of hazardous substances). Posidonia oceanica meadows are reported as a special habitat in the Adriatic Sea and in the Ionian Sea. The paper report besides addressing the Posidonia oceanica meadows provides information also on biogenic oi Maerl type..

Non-indigenous species

In total more than 200 NIS have been found in Greek waters of which the majority were recorded in the South-eastern Aegean Sea and Cretan Sea. The main vectors/pathways are identified as the Canal of Suez and shipping. Specific impacts discussed were those caused by Caulerpa racemosa, Mnemiopsis leidyi and by non-indigenous phytoplankton. but in general it has been concluded that there is still a lack of data on NIS.

Eutrophication

Greece has carried out an initial assessment on the level of pressure of eutrophication and its impact for all its three marine sub-regions, dividing the information by assessment areas. Greece lists the main causes of pressure which include agriculture, forestry, urban discharges and in some cases industry and/or aquaculture. Organic matter is not covered due to lack of available data.

Contaminants

For heavy metals, it mentions that atmospheric depositions, and in particular Saharan dust are significant contributors to inputs of heavy metals in the marine environment and provides for the various assessment areas, input loads of fluxes from Sahara dust.

Greece proceeds to an assessment of concentrations in water, sediment and biota of synthetic (PAHs, PCBS. DDTs and Drins) and non-synthetic substances (Cd. Pb. Cu, Zn. Hg and petroleum hydrocarbons) for five different assessment areas (North, South and Central Aegean, Ionian Sea-Adriatic and Levantine). Greece often refers to various hot spots in each assessment area. In the reporting sheets, Greece reports that, in the Aegean subregion. only 1-5% of the assessment area is affected by pollution from synthetic substances and sometimes less than 1% for heavy metals.

Contaminant concentrations have decreased between 1997 and 2012 and that stable trends have recently been observed. Most of the assessment areas are already at GES and only a proportion of 1-5% of the areas remain to achieve GES. Concentration levels for both synthetic and non-synthetic substances, in the environment and functional groups, are acceptable in relation to GES (i.e. status is good) in the three assessment areas and trends in status are stable. Also impacts on seabed habitats and functional groups are acceptable (i.e. status is good).

Greece mentions however that there are still hot spots, mainly in coastal areas, where contaminant concentrations are occasionally high, exceeding maximum permissible levels.

Acute pollution events

Greece concludes that levels of contamination by acute pollution events are acceptable (i.e. status is good) and that trends in status are stable, but it acknowledges that it does not have any threshold values to base this conclusion on.

Marine Litter

Tourism, shipping and fisheries are listed as the main causes of marine litter in Greek water. Preliminary qualitative analysis shows that Trends are stable and judgements are not on the current level of pressure caused by marine litter are provided for beaches and the seabed for all the marine sub-regions.

6.2.4.4 Cyprus

The following analysis in on the recent study of Milieu ltd for the EU publication "Article 12 Technical Assessment of the MSFD 2012 obligations Cyprus. 7 February 2014. Final version". It must be emphasized that this is a preliminary assessment and still there are gaps in knowledge of Marine Pollution in Cyprus.

Biodiversity

Pressures (physical loss and physical damage)

Cyprus indicates that the construction, operation and maintenance of structures on and along the coastline are the main cause of both physical loss and physical damage. Although these cover less than 1% of the Cypriot marine waters, they occupy 7-9% of the area within 100m from the coastline. Although the data available on impacts is limited, Cyprus refers to the work carried out under the Water Framework Directive as a source of information on the condition and function of angiosperm, macroalgae and macrobenthic communities in Cypriot coastal waters. It is indicated that less than 1% of the seabed habitats is impacted. The current status of the Cypriot waters in relation to physical loss and physical pressure is considered good and the trend is stable.,

Biological features

Habitats

Cyprus has carried out an initial assessment on both seabed and water column habitats. The current status as compared with the natural status is provided (always in line) as is the proportion of change per reference to this natural status (always less than 1%). Trends are stable in all cases and judgements are always good on the current status of the habitats..

Species/functional groups

In the reporting sheets, Cyprus has reported on the following species groups, albeit with different levels of detail: birds, mammals, fish and cephalopods. In addition, Cyprus reported on a few individual species — Chelonia mydas, Caretta caretta and monachus monachus. The information relative to the individual species reported follows the same structure. All of these species are assessed to be in a good status, Chelonia mydas and Monachus monachus are considered stable but the situation of Caretta caretta is actually improving.

Ecosystem

Cyprus has addressed two ecosystems in the reporting sheet and in the paper report — the inshore ecosystem and the offshore ecosystem. Nonetheless the information is very limited and Cyprus acknowledges a series of knowledge gaps, particularly in relation to the food web structure. No trends or judgements are provided due to insufficient data and the main pressures are only reported for the inshore ecosystem (extraction offish and shellfish and introduction of non-indigenous species).

Non-indigenous species,

As of July 2009, 126 NIS were reported in Cypriot waters, 80 of which were established. These NIS are listed together with their status (invasive, established, casual, cryptogenic, questionable) and first year of record. Fifteen invasive species have been identified in Cypriot waters up to 2012. In Cyprus the primary pathway for introduction of NIS is the practically passive transfer of Lessepsian migrants from the Indo-Pacific and the Red Sea through the Suez Canal into the Eastern Mediterranean. Shipping is also mentioned as the second vector of NIS. The level of the pressure is considered as increasing and that it will increase up to 2024. A judgement on the level of impact is not good.

Eutrophication,

Cypriot marine ecosystems appear to offer considerable resilience to the potentially high nutrient inputs from these and other (minor) sources, as evidenced by ultra-oligotrophic nutrient concentrations (often below limits of detection) and the good status of coastal waters in the Cyprus River Basin Management Plan.

The ultraoligotrophic character of the assessment area is reflected in very low concentrations of organic material, nitrogen and phosphorus. The Levantine Basin is considered to be one of the most oligotrophic ocean bodies in the world. The acknowledgement that groundwaters could be a substantial vector of entry for nutrient inputs is praiseworthy. Judgement on the level of impact appears to be reasonable. It is reported that less than 1% of the seabed and water column habitats are impacted by eutrophication and that the situation is stable.

The conclusion that Cyprus's marine waters are currently in GES appears to be realistic, but the level of pressure for phosphorus (the major limiting macronutrient) requires further evaluation. At present, only one source of phosphorus has been considered — treated wastewater.

Contaminants

The main land- and sea-based sources of pollution by hazardous substances are wastewater treatment facilities, industries, shipping and agriculture. In terms of the substances assessed, the Cypriot assessment covers among others PCBs, HCB, DDE, DDT, lindane. anthracene, benzo(a)pyrene and TBT for the man-made substances and lead, cadmium, mercury, copper, zinc. nickel, chromium and iron for the heavy metals.

For man-made substances, Cyprus only concludes that analyses have shown that concentrations in water, sediment and biota in coastal areas were mostly below or very close to the detection limit (only traces). For heavy metals, Cyprus describes in detail the conditions in which the samples were measured (in 2007-2008) and concludes that metal concentrations of Cu, Zn, Pb, Ni, Cr, Cd, Hg and Fe in water, biota and sediment were also detected at low levels. For biota, Cyprus measured contaminant concentrations in the red mullet species and compared them with "values [...] enacted from the EU", understood to be EU Regulation 1881/2006. For water and sediment.

In terms of judgement in relation to GES, in its report on Good Environmental Status,

Cyprus expects this "excellent status" to be maintained considering that the dangerous substances have been banned since the 1970's.

Acute pollution events

Cyprus makes a concise description of the main causes of pollution by petroleum hydrocarbons, the first of which being illegal discharges of oil at sea. The conclusion from these dated results is that pollution was low at the time. Cyprus does evoke the potential problems related to offshore exploration platforms.

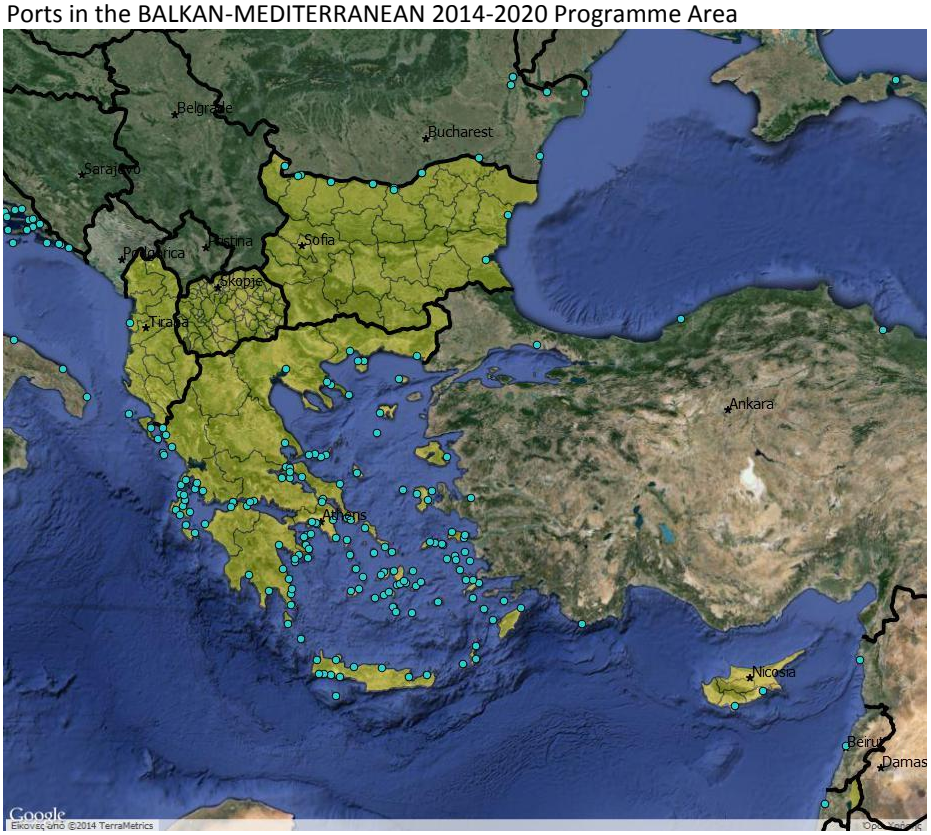
6.2.4.5 Albania

In Albania there is a eutrophication problem in coastal regions. On top of that, overexploitation of marine living resources, as well as industrial activity, shipping, and transport, further contribute to mainly coastal waters. The lack of proper Wastewater treatment in Urban Coastal areas, along with poor planning has also deteriorated the aesthetics of the coastlines.

6.2.4.6 Ports in the BALKAN-MEDITERRANEAN 2014-2020 Programme Area

At the following picture the (Ferry) Ports in the BALKAN-MEDITERRANEAN 2014-2020 Programme Area (potential important point sea pollutants emission sources) is depicted.

Figure 25. (Ferry) Ports in the BALKAN-MEDITERRANEAN 2014-2020 Programme Area



6.2.5 Population-Human Health-Natural Hazards and risks (emphasis on water issues).

6.2.5.1 Bulgaria

The following analysis is based on Prevention Web Data *"*Bulgaria-Disaster Statistics*"*

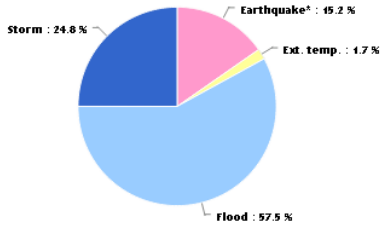
Statistics has shown a high incidence of various types of disasters that affected Bulgaria in the last decade, so that the country belongs to the areas characterized by particularly high risk in this aspect.

Table 10. Average Disaster Per Year in Bulgaria

Drought/Ξηρασία:	0.06
Earthquake*/ Σεισμός:	0.10
Epidemic/ Επιδημία:	
Extreme temp/ Ακραίες Θερμοκρασίες:	0.23
Flood/ Πλημμύρες:	0.42
Insect infestation/Μόλυνση από Έντομα:	
Mass mov. Dry/Βραχώδεις Κατολισθήσεις:	
Mass mov. Wet/ Λασπώδεις ή Χιονού Κατολισθήσεις:	
Volcano/ Ηφαίστειο:	
Storm/Καταιγίδα:	0.16
Wildfire/ Πυρκαγιά:	0.13

In 2008 the highest share is of municipalities affected by natural disasters - 62.9%, followed by fires - 54.9% and accidents and crashes - 24.6%. In the figure presented the group of natural disasters includes the following critical events: floods, storms (tornadoes and whirlwind), landslides, snowdrifts, ice (frost), hail, drought, earthquakes and other natural disasters. The group of accidents and emergencies includes industrial accidents and failures, severe road accidents, accidents with rail vehicles, aircraft crashes and other accidents. The figure below shows the percentage of reported people affected by disaster type.

Figure 26. Percentage of Reported People Affected by Disaster Type



As a conclusion Bulgaria can be characterized as a high-risk country in the aspect of natural hazards.

6.2.5.2 Greece

The following analysis is based on Prevention Web Data "Greece-Disaster Statistics"

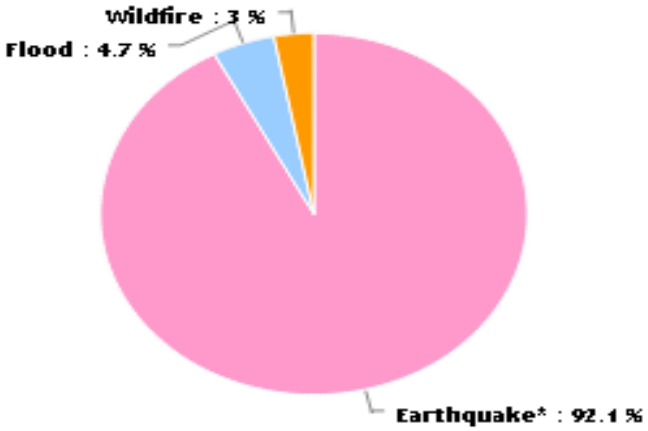
Statistics has shown a high incidence of various types of disasters that affected Greece in the last decade. The largest average disaster per year in Greece is the earthquake. Greece has a very seismically activity.

Table 11. Average Disaster Per Year in Greece

Drought/Ξηρασία:	0.03
Earthquake*/ Σεισμός:	0.65
Epidemic/ Επιδημία:	
Extreme temp/ Ακραίες Θερμοκρασίες:	0.19
Flood/ Πλημμύρες:	0.58
Insect infestation/Μόλυνση από Έντομα:	
Mass mov. Dry/ Βραχώδεις Κατολισθήσεις:	
Mass mov. Wet/ Λασπώδεις ή Χιονού Κατολισθήσεις:	
Volcano/ Ηφαίστειο:	
Storm/Καταιγίδα:	0.19
Wildfire/ Πυρκαγιά:	0.42

According to the statistics the most certain natural disasters, which took place in Greece, are earthquake, floods and wildfire. Also, the highest percentage of reported people are affected by earthquake.

Figure 27. Percentage of Reported people Affected by Disaster Type in Greece



As a conclusion Greece can be characterized as a high risk dountry in the aspect of natural hazards.

6.2.5.3 Cyprus

The following analysis is based on Prevention Web Data "Cyprus-Disaster Statistics"

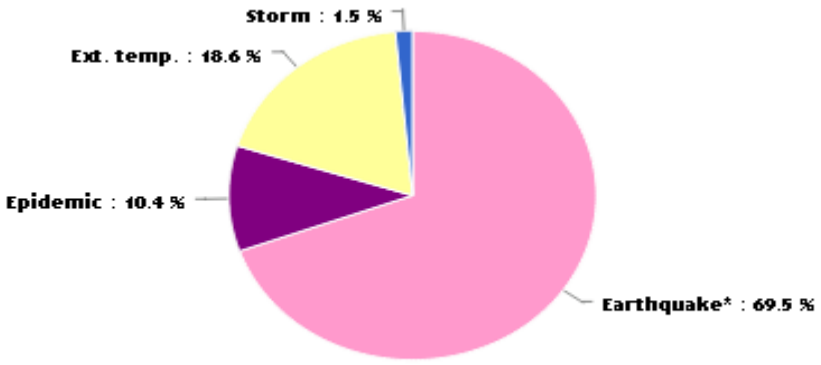
According to the statistics Cyprus has a better status in natural hazards in comparison with Greece. The most average disaster, which reported, is storms and extreme temperatures.

Table 12. Average Disaster per Year in Cyprus

Drought/Ξηρασία:	0.06
Earthquake*/ Σεισμός:	0.03
Epidemic/ Επιδημία:	0.03
Extreme temp/ Ακραίες Θερμοκρασίες:	0.10
Flood/ Πλημμύρες:	
Insect infestation/Μόλυνση από Έντομα:	
Mass mov. Dry/ Βραχώδεις Κατολισθήσεις:	
Mass mov. Wet/ Λασπώδεις ή Χιονού Κατολισθήσεις:	
Volcano/ Ηφαίστειο:	
Storm/Καταιγίδα:	0.10
Wildfire/ Πυρκαγιά:	0.03

Between 1980 and 2010, 63 people killed by natural disaster while the number of people affected, was 2685. The pipe below presents the percentage of reported people affected by disaster type.

Figure 28. Percentage of Reported People affected by Disaster Type in Cyprus



As a conclusion Cyprus can be characterized as a middle risk country in the aspect of natural hazards.

6.2.5.4 Albania

The following analysis is based on Prevention Web Data "Albania-Disaster Statistics"

Albania is highly exposed and vulnerable to natural hazards. However, to date we know little about the ability of the government and communities of the country to manage natural hazard-related risks. Albania is exposed to geologic (earthquakes, rock falls and landslides), hydro-meteorological (flooding and torrential rain, rain or snowfall induced landslides and avalanches, snowstorms, high snowfall, windstorms, droughts and heat waves) and biophysical hazards (forest fires and epidemics).

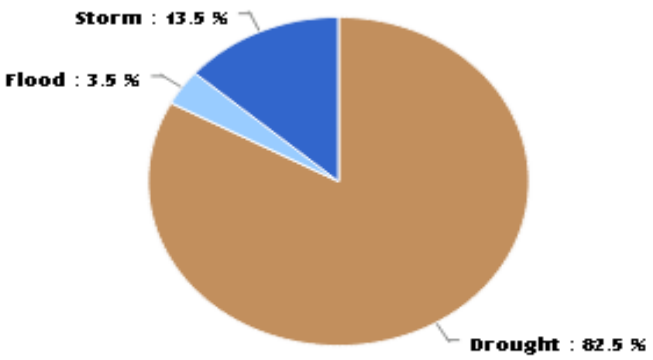
Table 13. Average Disaster Per Year in Albania

Drought/Ξηρασία:	0.03
Earthquake*/ Σεισμός:	0.13
Epidemic/ Επιδημία:	0.06
Extreme temp/ Ακραίες Θερμοκρασίες:	0.10
Flood/ Πλημμύρες:	0.29
Insect infestation/Μόλυνση από Έντομα:	
Mass mov. Dry/ Βραχώδεις Κατολισθήσεις:	0.03
Mass mov. Wet/ Λασπώδεις ή Χιονού Κατολισθήσεις:	
Volcano/ Ηφαίστειο:	
Storm/Καταιγίδα:	0.06
Wildfire/ Πυρκαγιά:	0.03

Landslides, biophysical hazards and avalanches are strongly related to hydro meteorology and weather conditions. These hazards can be natural or human-induced and can cause spatially and seasonally localise disasters (e.g. flash floods, wild and forest fires, landslides, rock falls, avalanches, etc.) or disasters of a more widespread nature (e.g. earthquakes and epidemics, etc). Albania is characterised by intense micro (1.0< Magnitude on the Richter Scale <3.0) earthquake activity, small (3.0<M<5.0) and medium-sized (5.0<M<7.0) earthquakes and only rarely by large (M>7.0) earthquake events.

According to statistics the number of people affected per year by natural hazard, during the two last decades, is 125082.

Figure 29. Percentage of Reported People Affected by Disaster Type in Albania



As a conclusion Albania can be characterized as a high risk country in the aspect of natural hazards.

6.2.5.5 Former Yugoslav Republic of Macedonia

The following analysis is based on Prevention Web Data "Former Yugoslav Republic of Macedonia -Disaster Statistics"

The region is seismically active and has been the site of destructive earthquakes in the past. Most recently, in 1963 Skopje was heavily damaged by a major earthquake, killing over 1.000 people.

Table 14. Average Disaster Per Year in former Yugoslav Republic of Macedonia

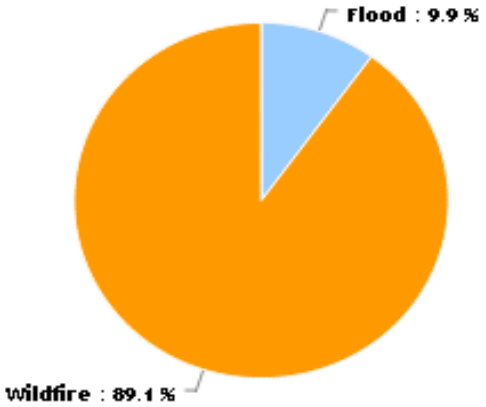
Drought/Ξηρασία:	0.03
Earthquake*/ Σεισμός:	
Epidemic/ Επιδημία:	0.03
Extreme temp/ Ακραίες Θερμοκρασίες:	0.10
Flood/ Πλημμύρες:	0.23
Insect infestation/Μόλυνση από Έντομα:	
Mass mov. Dry/ Βραχώδεις Κατολισθήσεις:	
Mass mov. Wet/ Λασπώδεις ή Χιονού Κατολισθήσεις:	
Volcano/ Ηφαίστειο:	
Storm/Καταιγίδα:	0.03
Wildfire/ Πυρκαγιά:	0.06

Soil erosion is a key problem, which has been worsened by earlier inadequate practices in arable fanning, grazing management and deforestation. There are high losses of topsoil. humus and nutrients from the agricultural land located on the steep slopes. Torrent erosion is also a significant problem as well as landfalls in the western part of the country. According the European Environment Agency (2005), the country, together with Serbia. Montenegro and Albania, is in the 'red zone of water erosion in Europe*. The country's Erosion Map reveals that 96.5% of the total area is subject to erosion. The total annual production of erosive

materials is 685 m3/km2/year. half of which is transported and a further half deposited into natural lakes and artificial reservoirs.

While not affected by significant flooding, the country frequently suffers drought and water shortages causing many problems in agriculture, forestry, and water management. Some analyses show a 50-60% decrease in crop production in non-irrigated areas, as a result of drought, especially in the eastern parts of the country. Forest drying and decrease of forest growth are current phenomena obseived in the forestry sector. Furthermore, drought has a direct impact on the quantity and quality of the water artificial reservoirs and natural lakes. According to MoEPP (2005b) mitigation of the effects of drought is one of the priorities at the country level, as well as the development of a National Action Plan for Combating Desertification.

Figure 30. Percentage of Reported People Affected by Disaster Type in former Yugoslav Republic of Macedonia



As a conclusion Former Yugoslav Republic of Macedonia can be characterized as a high-risk country in the aspect of natural hazards.

6.2.5.6 Map of Major Earthquakes (>4R) in the Balkan Mediterranean 2014-2020 Area

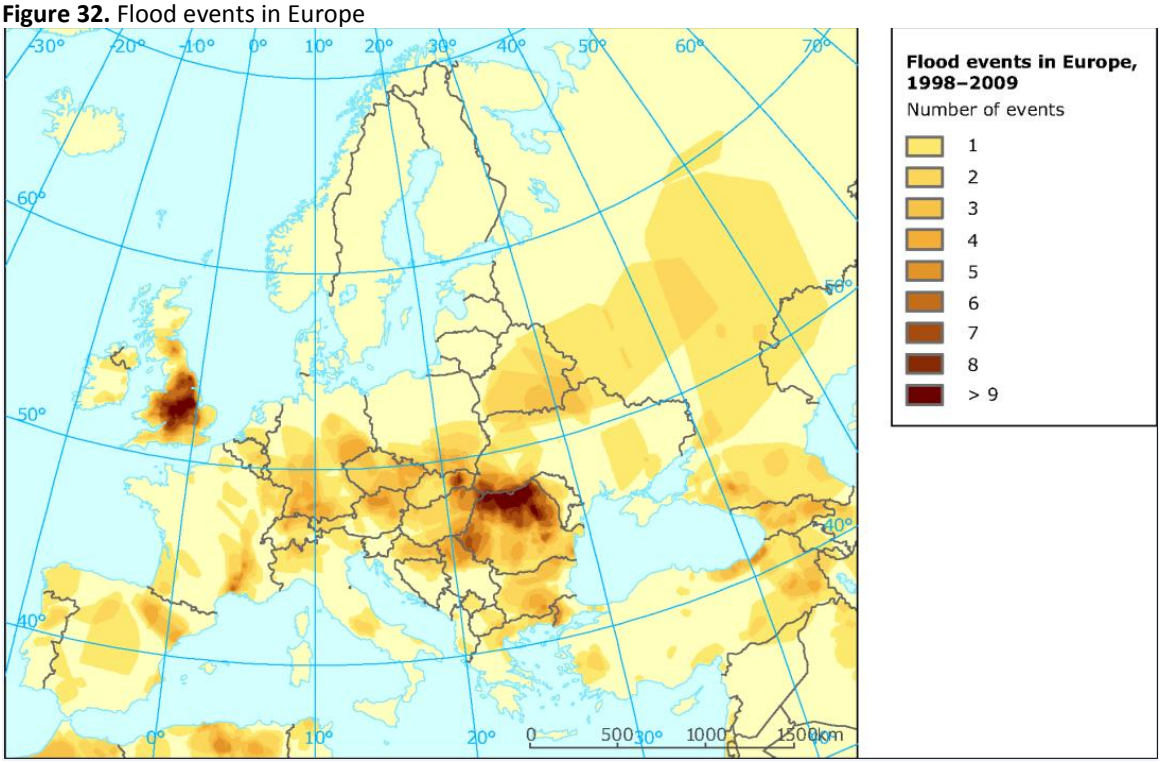
At the following picture a map of Major Earthquakes (>4R) in the Balkan Mediterranean 2014-2020 Area is shown. From this picture the severity of this issue is clear for Greece, Albania and Former Yugoslav Republic of Macedonia.

Figure 31. Major Earthquakes (>4R) in the Balkan Mediterranean 2014-2020 Area

6.2.5.7 EU-Flood Events-Flood risk- Aggregated Data

The following figure shows the flood events all over the Europe the decade between 1998 and 2009. From this figure it can extracted that all EU BALKAN-MEDITERRANEAN 2014-2020 countries dot not show large number of flood events while Bulgaria comparatively shows relatively larger flood frequency figures than Greece and Cyprus.

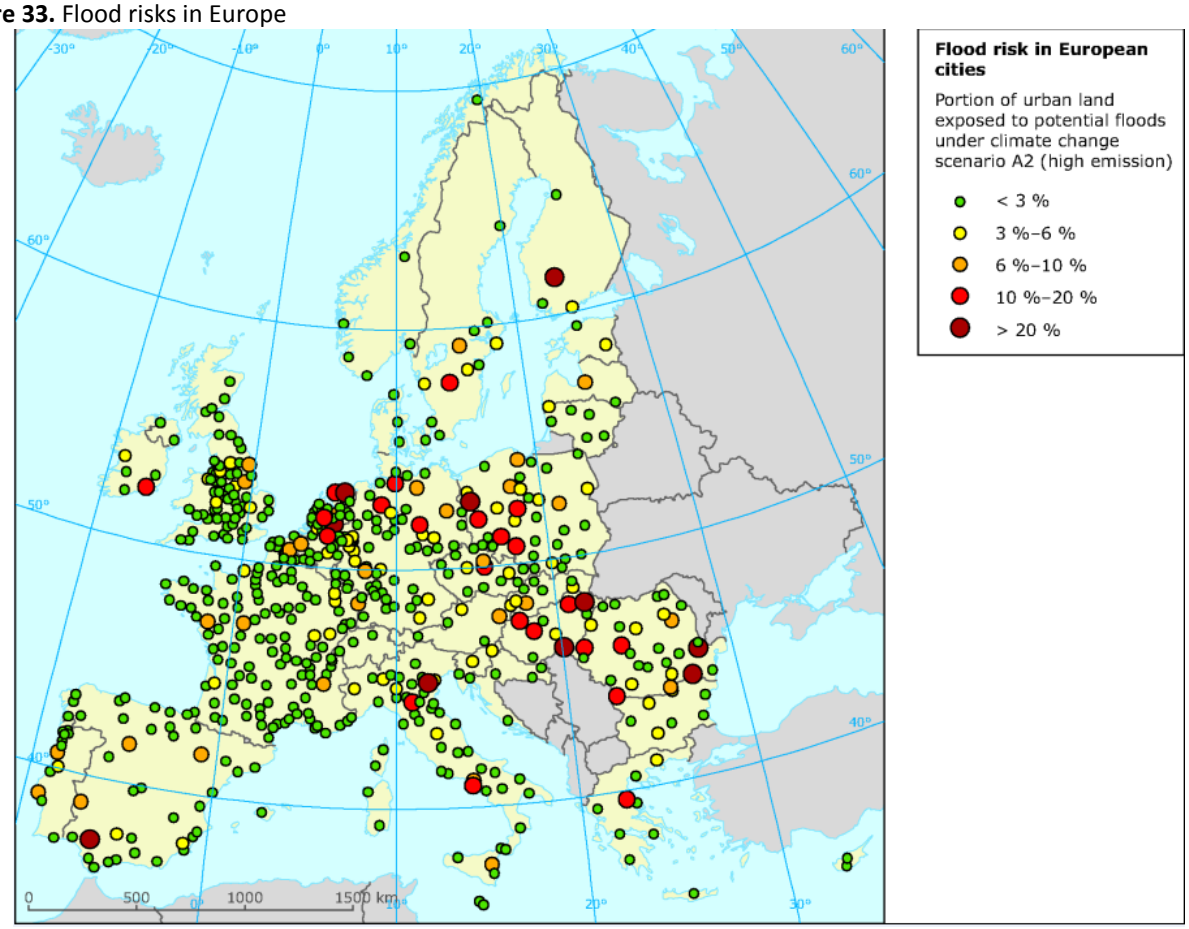
Figure 32. Flood events in Europe



(source: EEA)

The following figure shows the flood risks. From this figure it can seen that all EU Balkan -Med countries dot not show larger flood risk than Central Europe Countries while Bulgaria comparatively shows relatively larger flood risk than Greece and Cyprus

Figure 33. Flood risks in Europe

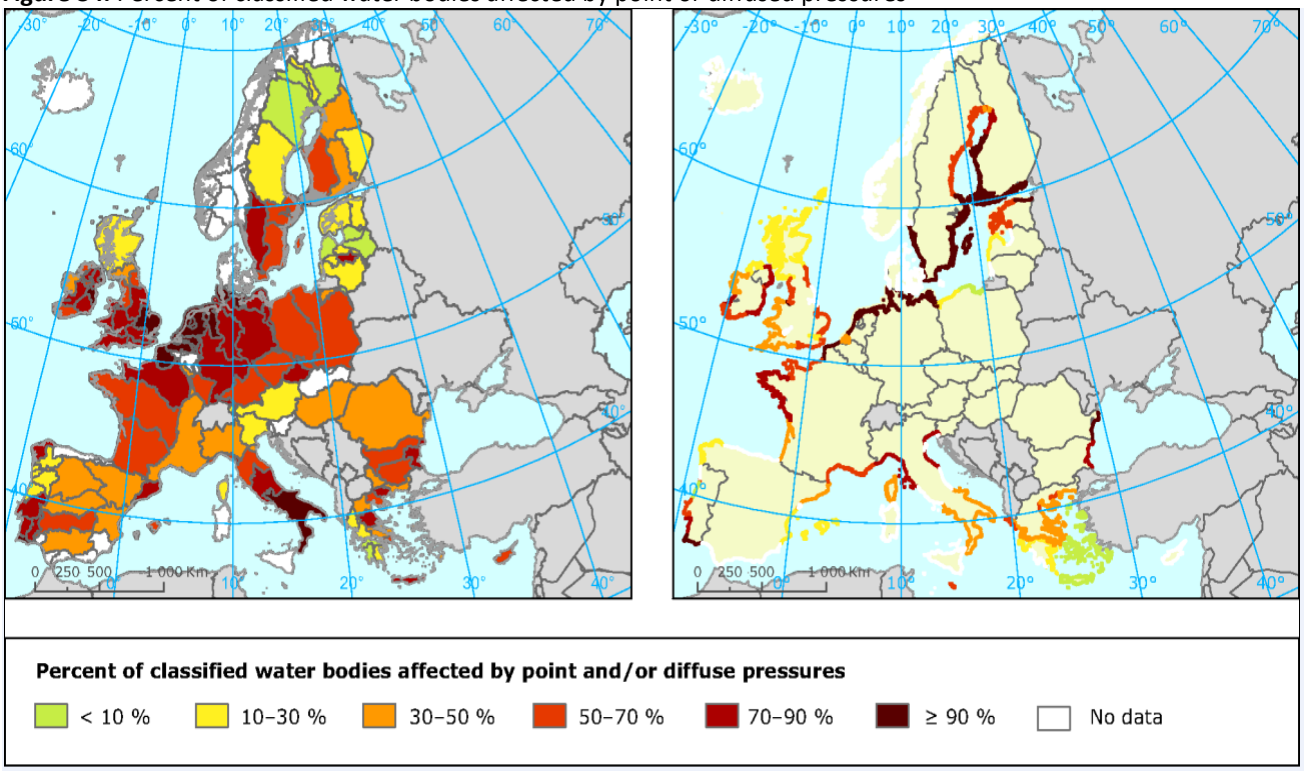


(source: Environmental European Agency)

6.2.5.8 EU-Classified water bodies affected by point or diffused pressures-Agreggeted Data

The following figure presents the percent of classified water bodies affected by point or diffuse pressures. From this figure it can extracted that all EU Balkan -_Med countries show in general similar figures with Central European Countries while Bulgaria comparatively show larger figures than Greece and Cyprus.

Figure 34. Percent of classified water bodies affected by point or diffused pressures

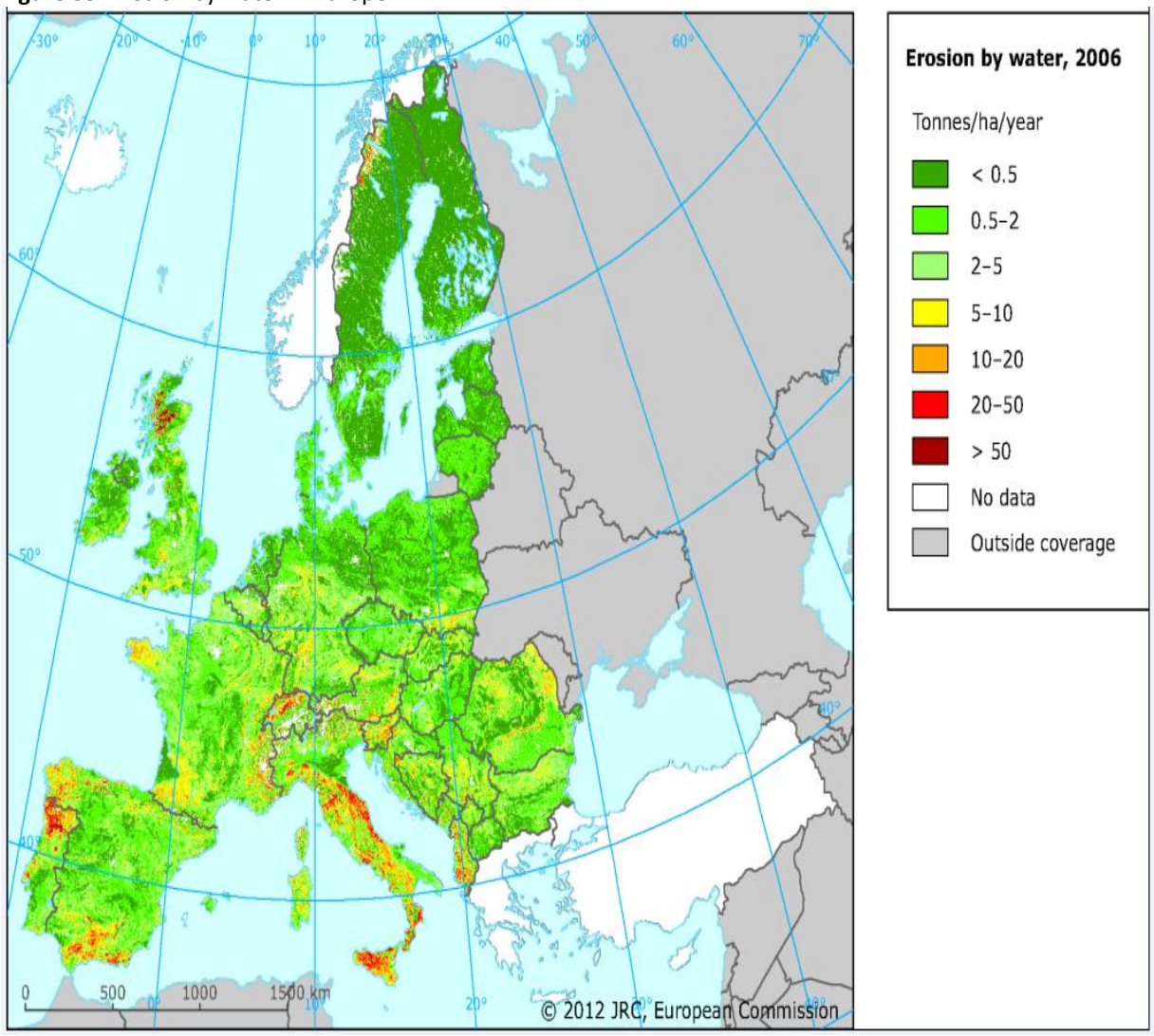


(source: EEA)

6.2.5.9 EU-Erosion by water. Agreggated Data.

The following figure shows the erosion by water all over the Europe

Figure 35. Erosion by water in Europe

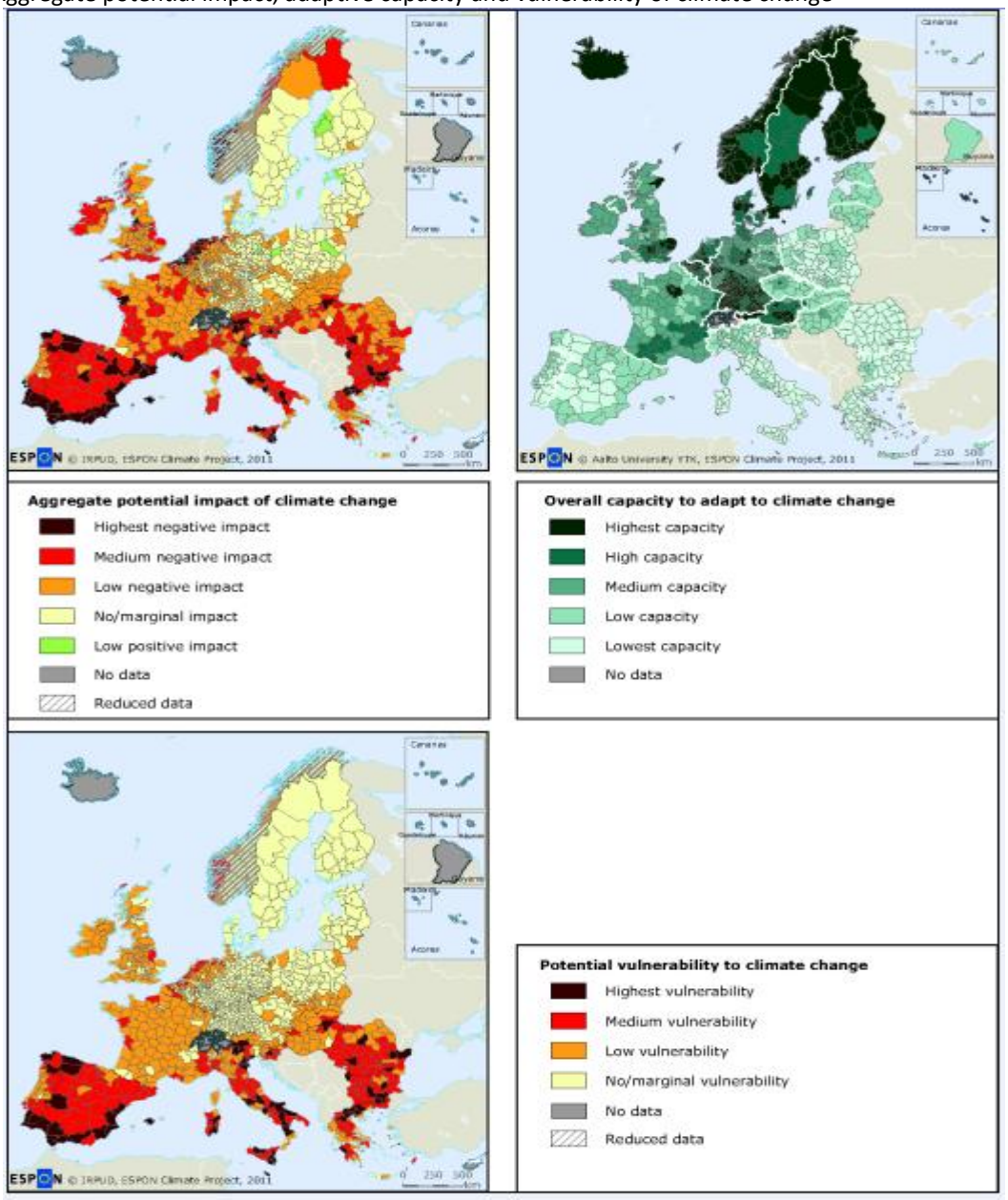


(source:Environmental European Agency)

6.2.5.10 EU- Impact of Climate Change by Country

Climate change is a very considerable threat for all the population of Europe. The following figure shows the impact of climate changes all over the Europe. The following figure presents the overall capacity adaptation to climate change. Also in the following figure we can see the potential vulnerability to climate change by country.

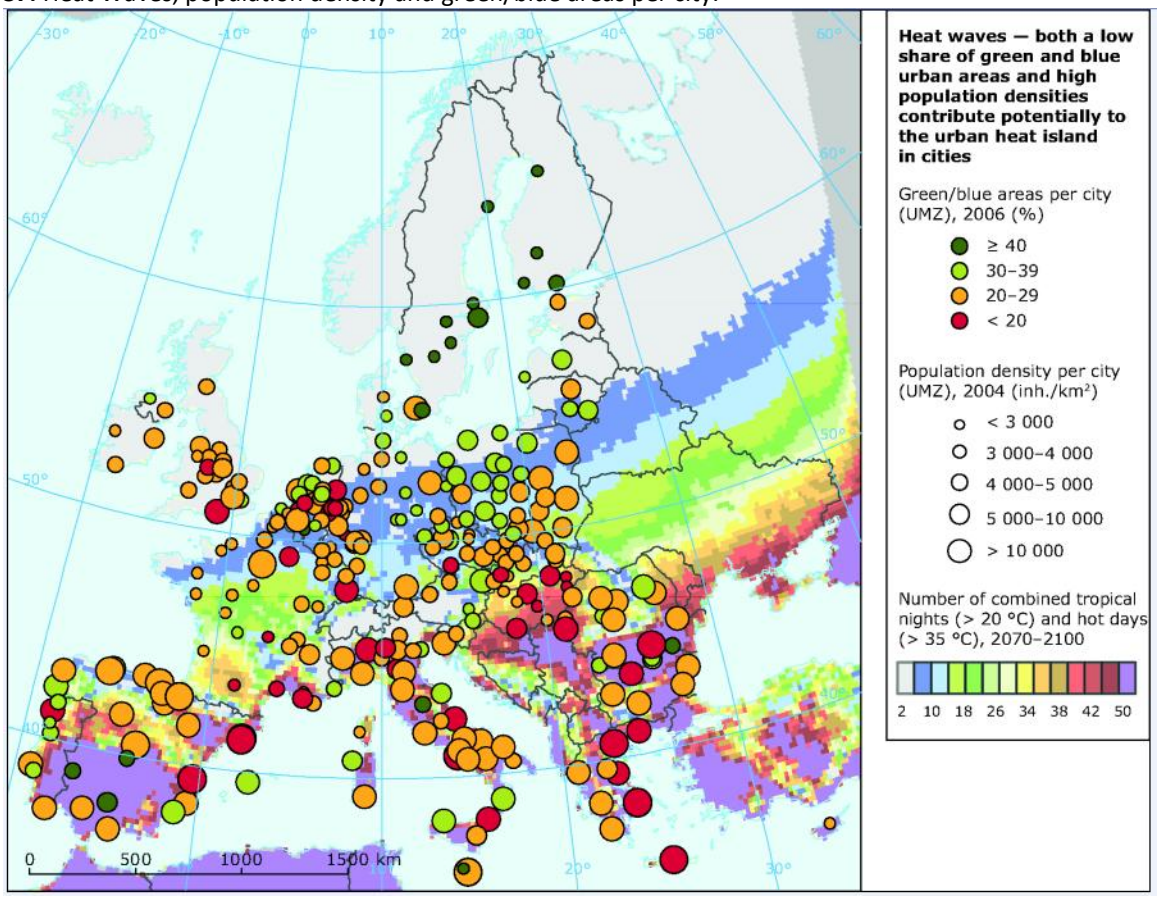
Figure 36. Aggregate potential impact, adaptive capacity and vulnerability of climate change



6.2.5.11 EU- Heat Waves by Country

One other considerable threat, which can shape negative impacts for the population of Europe, is the heat waves. The following figure shows the number of combined tropical nights and hot days and population density per city. Finally, the figure presents the percentage of green or blue areas per city.

Figure 37. Heat Waves, population density and green/blue areas per city.



(source: Environmental European Agency)

6.2.6 Fauna-flora-Biodiversity

6.2.6.1 Bulgaria

Bulgaria is a country with a relatively small territory but its natural resources are extremely diverse. In Bulgaria there have been established approximately 29 000 animal species: 94 species of mammals, 405 bird species, 36 reptiles, 16 amphibians, 207 Black Sea and fresh-water fish, approximately 27 000 invertebrates, including insects. The flora of Bulgaria is characterised by the considerable number of species it includes. The composition and structure of the higher plants in the country can be represented approximately in this way - 130 families, 872 genera, 3 550 species, 2 000 varieties and 359 species of ligneous and frutescent flora.

Forests in Bulgaria cover 3 367 mln ha and constitute 30% of the territory of the country. The Bulgarian forest is the safest refuge for rare plant and animal species. The forests are concentrated mainly in the mountain regions, where most of the wildlife is to be found as well. Only in the belt between 500 m and 1 000 m there are 2 137 plants. Stara Planina, more specifically its central part, is the richest in plant species, followed by the Rhodopes, Pirin and Rila.

The biological diversity must be preserved in its natural environment, so that the species can exist and develop normally. Protected areas are designated through legislation in order to protect and preserve their specific biologic, aesthetic and cultural value. Certain legislations stipulate that such areas are designated forever. This is very rarely done for a specific period of time. The cultural function of the protected areas is realised through tourism. Tourism and nature protection in combination contribute to our physical, psychological and spiritual enrichment. The Protected Areas Act (PAA) was adopted by the National Assembly on 30 October 1998.

6.2.6.2 Greece

About two-thirds of the Greek territory are covered by a hilly or mountainous terrain, with the typical landscape being rugged and steep. Greece has a very extensive coastline of about 15 000 kilometres and about 3 000 islands, which represent 20% of the land area. The coastline is mainly rocky (70%) and sandy (25%), with about 5% of wetlands. Ten of the 15 largest urban centres are coastal, and most of them have important harbours. Greek Mountains, extending from north to south, divide the country into two parts. Greece has a Mediterranean climate, with mild and wet winters, and hot and dry summers.

Species and ecosystems diversity is high due to the great range of climatic and geomorphologic conditions. Greece entirely lies in the Mediterranean bio-geographical region, with ecosystems ranging from semi-desert and maquis, to cold climate mountain forests of birch, scots pine, and spruce. Wetlands (rivers, estuaries, deltas, lagoons, shallow lakes, shallow marine formations, and marshes) cover a relatively wide area (210 000

hectares), despite their large degradation over the past decades. Forests cover nearly 30% of Greek territory (although tree cover has decreased as a result of the 2007 fires); 29% of the land is cultivated, and 36% is grassland (much of it upland and sparse).

Greek flora and fauna are among the richest in Europe: more than 5 500 plant species have been recorded, with a large number of endemic species, due to the isolation of mountains and islands. The fauna includes a large number of indigenous species. Nearly all mammal species recorded in Greece (116) are indigenous, as well as 85% of freshwater fish species. The herpetofauna consists of 20 species of amphibians and 60 species of reptiles. Over 400 bird species have been recorded, of which 240 nest in Greece. Invertebrate species have been estimated at around 25 000, many of which populate the country's thousands caves. Also the red book data, which includes all rare threatened vertebrate and plant, is already prepared.

6.2.6.3 Cyprus

Cyprus's biodiversity is a result of its long isolation history, its geology and geomorphology and the Mediterranean climate, along with the effect of human intervention. The coastal zone (772 km) of Cyprus is characterized by rich wildlife of high ecological value. Approximately 18 percent of Cyprus' area is covered by forest and 47 percent is considered arable land, 21 percent of which is irrigated. The dominant types of woody plants are the extensive pine forests, the sclerophyllous evergreen, high and low maquis, and garigue ecosystems.

The great diversity of plant and animal species derives from a sharp altitudinal gradient of climatic conditions, extending from the warm and semi-arid environment of the central Mesaoria plain (average temperature 17-19°C, annual rainfall <300 mm) to wet and cool conditions on the mountains of the Troodos massif (average temperature 9-13°C, annual rainfall 1100 mm).

The flora of Cyprus comprises about 1738 indigenous taxa including 143 endemics. There are also hundreds of cultivated species many of which are adventives. About 238 indigenous plant taxa have been classified as threatened based on the IUCN Red List criteria. Most of the endemic plants of Cyprus are located in the two mountain ranges of island: 94 endemic plants developed in the mountain range of Troodos and 56 in the mountain range of Pentadaktylos. The National Forest Park Troodos, hosts a total 786 plant taxa and it is characterized as the most important region of island. According to the Red Book of Flora of Cyprus, 3% of endemic plants of Cyprus are characterized as Critically Endangered (CR), 6% Endangered (EN), 22% as Vulnerable (VU), 1 as Close Threatened (NT), 1 as Low Danger (LC) and 67% as Not Threatened based on the preliminary evaluation (Non Threatened- preliminary evaluation).

Cyprus has a rich and diverse fauna due to the wide range of habitats and due to its position at the crossway of three continents. The fauna of the island is considered an important component to biodiversity. The fauna

of Cyprus includes endemic species, such as Ovis orientalis ophion that is often characterized as the "national animal of Cyprus", and which is the largest wild mammal of Cyprus and has been studied to a great degree. Furthermore there are also various species of mammals, snakes, birds etc. Cyprus is classified as important bird species as Endemic Region for Birds in the world, while it constitutes one from the 8 most important migratory routes for the birds in Europe.

6.2.6.4 Albania

Albania is distinguished by its rich biological and landscape diversity in two main bio-geographical regions: the Mediterranean and the Alpine regions. This can be attributed to the country's geographic position as well as its geological, hydrological, climatic, soil and relief characteristics. The high diversity of ecosystems and habitats – marine and coastal ecosystems, wetlands, river deltas, sand dunes, lakes, rivers, Mediterranean shrubs, broadleaf, conifers and mixed forests, alpine and sub-alpine pastures and meadows, and high mountain ecosystems – provides rich habitats for a variety of plants and animals. The high Albanian forests maintain communities of large mammals such as wolf, bear, lynx, and wild goat, and also characteristic bird communities.

Several biodiversity monitoring and research Programmes are being implemented by research institutions e.g. monitoring of habitats with rare, endemic and threatened plant species and their ex-situ conservation by the botanical gardens, and Monitoring of the Trophic Status of Lagoons.

Some progress has been achieved with the inventory and mapping of natural and semi-natural habitats, the conservation of which, pursuant to the EC Habitats Directive, requires the designation of special areas of conservation (SACs).

According to the more up-to-date information gathered from monitoring reports between 2007 and 2009, as many as 46 mammal species (of the newly indicated total of 91 mammal species, thus 50.1 per cent), 115 bird species (of the new total of 330, thus 34.8 per cent), 37 reptile species (100 per cent), 15 amphibian species (100 per cent), 54 fish species (of 311, thus 17.4 per cent), 108 insect species (of 680, thus 15.9 per cent) and 130 mollusc species (of 183, thus 71 per cent) were considered to be threatened on a national scale in Albania.

Data on the main wild fauna species, the populations of protected animal species listed under annex II to the EU Habitats Directive either remain stable or have increased notably in number between 2002 and 2010. Among protected species, the most spectacular increase has been noted for the Balkan chamois, the population of which increased by over 12 per cent, and the brown bear (10 per cent), most probably as a result of successful educational campaigns, designation of new protected areas and protective measures applied by field services. As for other mammal species, a notable increase in population can be remarked for

the golden jackal (62.9 per cent), wild boar (57.9 per cent), beech marten (51.8 per cent) and Eurasian badger (41.5 per cent).

Figure 38. Populations of the main wild fauna species, 2002 and 2010

Scientific name	Species name in English	Species population			
		2002	2010	Change (No.)	Change (%)
Canis aureus	golden jackal	356	580	224	62.9
Canis lupus	wolf	1,492	1,498	2	0.1
Capreolus capreolus	roe deer	471	506	35	7.4
Felis silvestris	European wild cat	451	458	7	1.6
Lepus europaeus	brown European hare	40,081	25,937	-14,144	-35.3
Lutra lutra	river otter	622	584	-38	-6.1
Lynx lynx / Lynx lynx martinoi	lynx / Balkan lynx	24	26	2	8.3
Martes foina	beech marten	4,678	7,102	2,424	51.8
Meles meles	Eurasian badger	2,426	3,433	1,007	41.5
Rupicapra rupicapra balcanica	Balkan chamois	799	897	98	12.3
Sus scrofa	wild boar	837	1,322	485	57.9
Ursus arctos	brown bear	569	626	57	10.0
Vulpes vulpes	red fox	28,056	27,214	-842	-3.0
Alectoris graeca	rock partridge	39,584	26,405	-13,179	-33.3
Pelecanus crispus	Dalmatian pelican	70	120	50	71.4
Perdix perdix	grey partridge	5,397	4,389	-1,008	-18.7
Phasianus colchicus	common pheasant	10	128	118	1,180.0

6.2.6.5 Former Yugoslav Republic of Macedonia

Former Yugoslav Republic of Macedonia has a remarkable wildlife diversity, which reflects the varied relief, geology, natural history and human influence. More than 3.5000 vascular plants (150 of which endemics) have been registered, along with 78 species of mammals, 330 types of birds, 31 reptiles and 55 species offish. The Red List of endangered plant species within Former Yugoslav Republic of Macedonia has yet to be prepared, but it is considered that about 10% of the higher plants species are threatened. The fauna also reveals a high degree of taxonomic diversity, which includes more than 9.000 species. 674 of which are endemic-making the country one of the most important centers of endemism in Europe.

Nature is though under threat by lack of citizen's awareness, low institutional capacity, lack of strategic planning, outdated technology, unsustainable agriculture practices, draining of wetlands, steady reduction of forests, illegal hunting, continuing and increasing use of chemicals to eliminate unwanted insects, and uncontrolled urbanization and industrialization. The higher altitude habitats are instead less exposed to human activities.

Forest area accounts for about 37% of the territory, and most of it (90%) is owned by the state. Timber harvesting is often considered to be managed rather inefficiently. In the pre-mountain (subalpine) regions

forests are almost destroyed, due to desiccation. fires, land drainage, mining and other anthropogenic activities like building construction, expansion of tourist settlements, road infrastructures and artificial lakes.
Grasslands ecosystems also occupy a large part of the country, and are expanding in some areas due to forest degradation and abandonment of agriculture land. Grasslands however are under anthropogenic pressure from agriculture and mining activities.
Floral and faunal components of the mountain ecosystems are not generally endangered. Mountain ecosystems within the three national parks of the country (Galichitsa. Mavrovo and Pelister) are protected by specific legal regulations. Mountain ecosystems however are under pressure due to overgrazing, the uncontrolled removal of plant species, and the construction of ski-lift and other infrastructures.
Lake and watershed ecosystems are very rich in terms of biodiversity, but their state is alarming. This includes the three natural lakes (Prespa. Ohrid and Dojran) and the developed river network, especially the watershed of the Vardar River. The Vardar valley is an important area for bird migration, and the relict lakes are among the major centres of faunal endemism. Pollution from wastewater. industrial agricultural pollution, and a lowering of the water level in some of the lakes are among the highest pressures, leading to increased pollution and eutrophication.

Wetland vegetation, which used to form large areas of swamps and marshes within all the valleys of the country, experienced great changes under past drainage regimes which converted most of these ecosystems into arable land. Impacts to most of the swamps and marshes have caused a reduction in the populations of all amphibians, as well as individual species of other invertebrate and vertebrate groups.
Protected Areas. In the past 60 years the size of protected areas in the country has increased. In 2007 the network of protected areas covered 187.770 hectares, i.e. 7.3% of the national territory. More than half of this area belongs to three national parks Mavrovo. Pelister and Galicica. The country is also working on the development of Emerald Network of Areas of Special Conservation Interest under the Bern Convention which, after accession, will become part of the Natura 2000 Network. Other international initiatives for nature protection are also ongoing, such as the development of an indicative map of Pan-European Ecological Network in South-East Europe, and the IUCN Green Belt initiative. However, the present status of species protection in the country is at a veiy low level. In the country, neither cadastres of protected areas and species exist, nor action plans. The management of transboundary habitat networks is lacking, although some efforts are being made. e.g. on the management of lakes aquatic habitats with neighbouring countries.
According to the Spatial Plan of Former Yugoslav Republic of Macedonia there are about 265 registered sites which, until 2020 should be put under different protection status covering about 300.000 ha or about 12% of the land surface. The registered sites reflect proposals for proclamation of areas under the national

legislation that are harmonized with IUCN categories in the new law on nature protection, but they are not fully in correspondence with NATURA 2000.

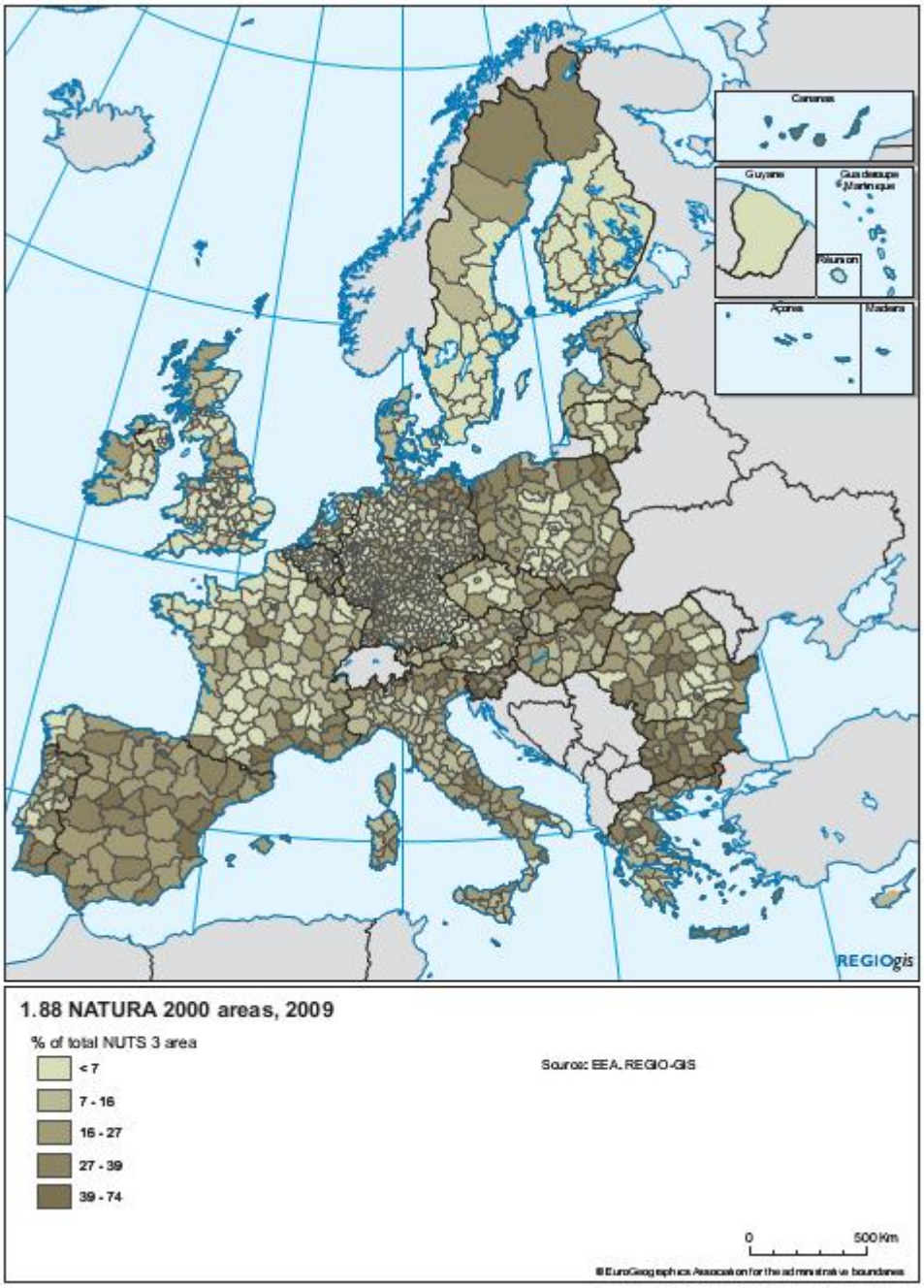
6.2.6.6 EU-Natura 2000 Network - Agreggated Data

Natura 2000 is an EU wide network of nature preservation areas. The aim is to ensure the long-term survival of threatened species and habitats. According to the EU Nature Directives, conservation should be achieved while taking account of economic, social, cultural, regional and recreational needs. Regions should, therefore, not consider the sites concerned as merely areas to protect but as important assets in development strategies: NATURA 2000 areas could be used for instance to attract more visitors and to develop economic activities related to ecotourism, as well as enhancing the quality of life of the people living in the regions concerned.

The Natura 2000 Network currently covers approximately 18% of the land area of the EU as depicted at the following figure. To ensure that biodiversity and ecosystems continue to contribute to human and economic prosperity (e.g. through pollination, water purification, and flood prevention), these protected areas and the wider countryside need to be properly managed. Developing 'green infrastructure', avoiding the fragmentation of landscapes and reducing the impact of fragmentation through ecological networks, particularly Natura 2000, is key to maintaining a sustainable environment

The network of protected areas is particularly dense in Northern Greece and Bulgaria.

Figure 39. **Natura 2000 in Europe**



6.2.7 Air Pollution

6.2.7.1 Bulgaria

According to EEA2012 data during the year:

- Two regions (the South-western and Southern/Thracian) registered exceedances of the mean hourly norm and mean daily norm for sulphur dioxide content in the air. The main sources of sulphur dioxide emissions in the Southern area were the three coal-fired power stations making up the Maritsa Iztok complex and also the Maritsa 3 coal-fired power station in Dimitrovgrad. Major sources in the South-western ROUKAV were the lead and zinc factory at Kardzhali and the Republika coal-fired power station. Emissions from fossil fuel burnt for home heating also contributed to the pollution.
- The only exceedance of nitrous dioxide MHN and MDN was registered by the Sofia area, the main source being vehicle exhausts.
- PM10 pollution continues to be a major air quality issue for all areas. The sources of excessive PM10 pollution were industry, households and transportation, and also polluted and badly-maintained road surfaces. A typical summer problem is the prolonged dry period, causing soil weathering, which in turn contributes to air pollution.
- Southern/Thracian area registered an exceedance of the ozone target of 120 µg/m3 (maximum eight-hour value within a day which must not be breached on more than 25 days in a year over a three-year period).

Further work is needed to develop realistic emission requirements for large polluting plants, and the Regional Environmental Inspectorates will have an important role to play in their effective enforcement. Determined action is needed to implement the Environmental Strategy concerning air pollution. The integration of air pollution concerns in industry, energy and transport policies is essential if results are to be achieved in the most cost-effective way.

As a conclusion, Air quality remains low in many cities and hot spots, continuing to present a significant threat to human health. Overall, national emissions are still high compared with those of either western European countries or other central and eastern European countries. Emissions from large industrial facilities remain major problems, as do those from residential/commercial sector use of low-quality solid fuels. Motor vehicle emissions are a concern in cities, especially in Sofia, and are likely to increase, unless counteracting measures are taken.

6.2.7.2 Greece

Exceedances of the mean hourly concentrations of nitrogen oxides and (8 hours limit) ozone target have been recorded mainly in major cities Athens and Thessaloniki, while sulfur dioxide does not seem to be a problem with the exception of Western Macedonia and Peloponese-Megalopolis. Exceedances of limits by Particulates concentrations seems to be a problem all around Greece.

Air quality issues in Greece arise from transportation, urban and industrial air pollution. Following the economic and social development of the country, the sources of urban air pollution are mainly transport and central heating. The major challenges of transport in urban areas are the rising number of vehicles, their increased average age, and traffic congestion. Air quality problems from industrial sources mainly concern areas with thermo-electrical power stations and industrial units located close to residential areas (Western Macedonia and Peloponese-Megalopolis). Natural sources (e.g. transport of dust from deserts) and conditions (e.g. local topography and climatic conditions) also worsen urban air quality. Local meteorological conditions and topography have a major impact on air quality in coastal megacities (Athens and Thessaloniki) and contribute to the generation of air pollution episodes. Air quality is then strongly influenced by pollutants trapped due to thermal inversions caused from sea/land breezes and thermal internal boundary layers.

6.2.7.3 Cyprus

The assessment of air quality measurements shows a continuous improvement of air quality in Cyprus. Most of the air pollutants do not exceed the limits, with the exception of Ozone and PM10. The Ozone exceedances of the 8-hour target value, observed mainly in non-urban areas, are primarily due to transboudary pollution and due to climate conditions prevailing in the Mediterranean area (high temperatures, extended sunshine periods).

PM10 exceed both the annual and the daily limit value all over Cyprus. These exceedances are due to natural sources (sea salt), transboundary pollution (i.e. Sahara dust storms) and anthropogenic sources, as well as traffic, central heating and industrial emissions.

Regarding the emissions of pollutants in Cyprus, the main contributors are road transport and industrial sources.

6.2.7.4 Albania

According to EEA2012 data:

Exceedances of the mean hourly concentrations of nitrogen oxides have been recorded mainly in Tirana, while sulfur dioxide does not seem to be a problem. Exceedances of limits by Particulates concentrations seems to be a problem all around Albania.

Historically, the major sources of air pollution have been industries involved with chromium smelting, copper, cast-iron, cement and steel metallurgy and thermo power plants. Since 1992, many of these industries have been closed. The results of air quality monitoring for 2006 show that the air quality norms for two parameters (LNP & PM10) are not met in most of the urban areas, but the situation remains tolerable in terms of other monitored parameters (SO2, N02, Ozone & Pb), which remain within the allowed norms. Today the major sources of air pollution are oil extraction and refining, mobile sources, domestic heating, cement production and unregulated garbage burning.

One of the main sources of air pollution in urban areas is transport. Poor urban planning so far has increased the traffic problems while reduction of green areas in the cities has reduced inhalation of CO,. Existing vehicles in Albania are relatively old, and their number is increasing. Emissions from vehicles (PM) and road dust (LNP) caused by non asphalted roads and on-going construction highly contribute to air pollution causing breathing problems, particularly among very young and old people. Industry also contributes to local pollution to a large extend. Concentration of pollutants is more problematic in Tirana and Elbasan, where the main pollutants are two to five times higher than the allowed level.

6.2.7.5 Former Yugoslav Republic of Macedonia

According to EEA2012 data:

- Exceedances of the mean annual concentrations of nitrogen oxides have been recorded mainly in Skopje (1998, 2000, 2001, 2004, 2005 and 2006), Kumanovo (2004) and in Kicevo (2005). In 2007-2008, the concentration of this pollutant fell.
- Exceedances of the mean annual and winter concentrations of sulphur dioxide have been recorded mainly in Skopje (1998, 1999, and 2006).
- Exceedances of limits by Particulates concentrations seems to be a problem all around Former Yugoslav Republic of Macedonia cities.

Air pollution in former Yugoslav Republic of Macedonia seems to be a significant problem. Despite the low level of industrial development, industrial air purification and emission control systems are ineffective, energy use is inefficient and urban traffic pollution is high. Air quality is rather poor in urban areas, especially

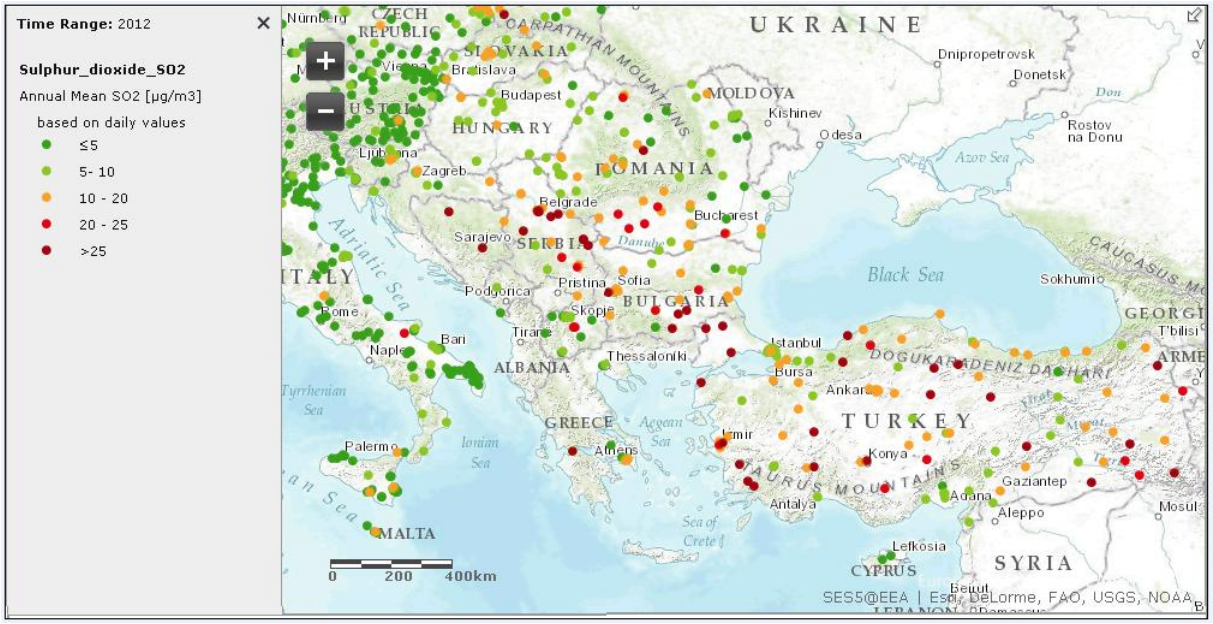
in the cities of Skopje (where most of the country's heavy industry is concentrated). Veles. Bitola and Tetovo. At regional level, air quality is worse in the Pelagonian. Southwest. Skopje and Polos regions.

Major air pollutants sources are industries (e.g. metallurgical plants and thermal power plants due to lignite burning and inadequate abatement processes) and traffic.

6.2.7.6 EU-Agreggated Data-Sulfur Dioxide Concentration- Ozone –Particulates Exposure

The following figure presents Sulphur Dioxide Concentrations in Europe . From this figure it can extracted that all EU Balkan -_Med countries show in general slightly larger similar figures with Central European Countries while Bulgaria show larger figures than Greece and Cyprus. Some SO2 hot spots are located in Bulgaria and one in Greece.

Figure 40. Sulphur Dioxide Concentrations in Europe



(source: EEA, 2012)

The following figures present Exposure of Urban Population to air pollution caused by Ozone in µg/m3day in Europe. From these figures it can extracted that all EU Balkan -Med countries show in general high exposure to ozone but similar to Italy and Spain while former Yugoslav Republic of Macedonia shows smaller figures than Greece, Cyprus, Albania and Bulgaria.

Figure 41. Exposure of Urban Population to air pollution caused by Ozone in µg/m3day in Europe.

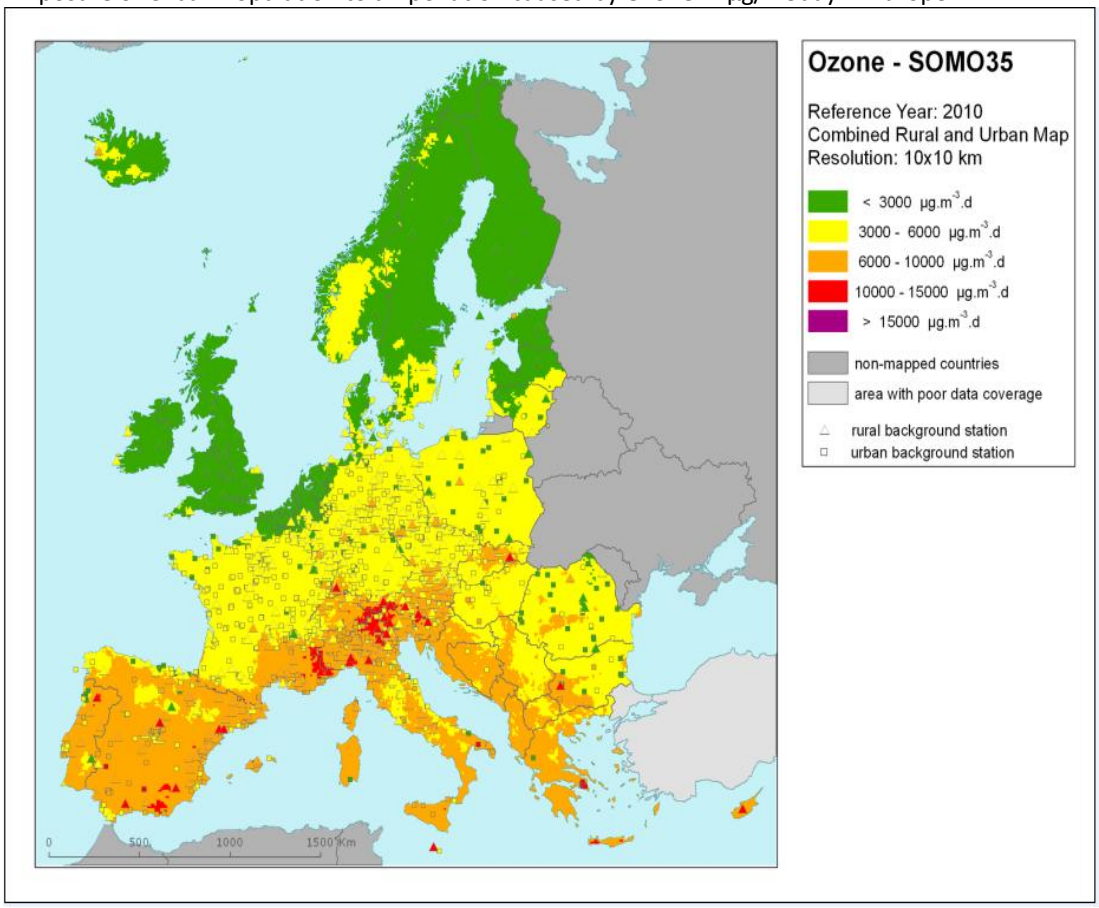
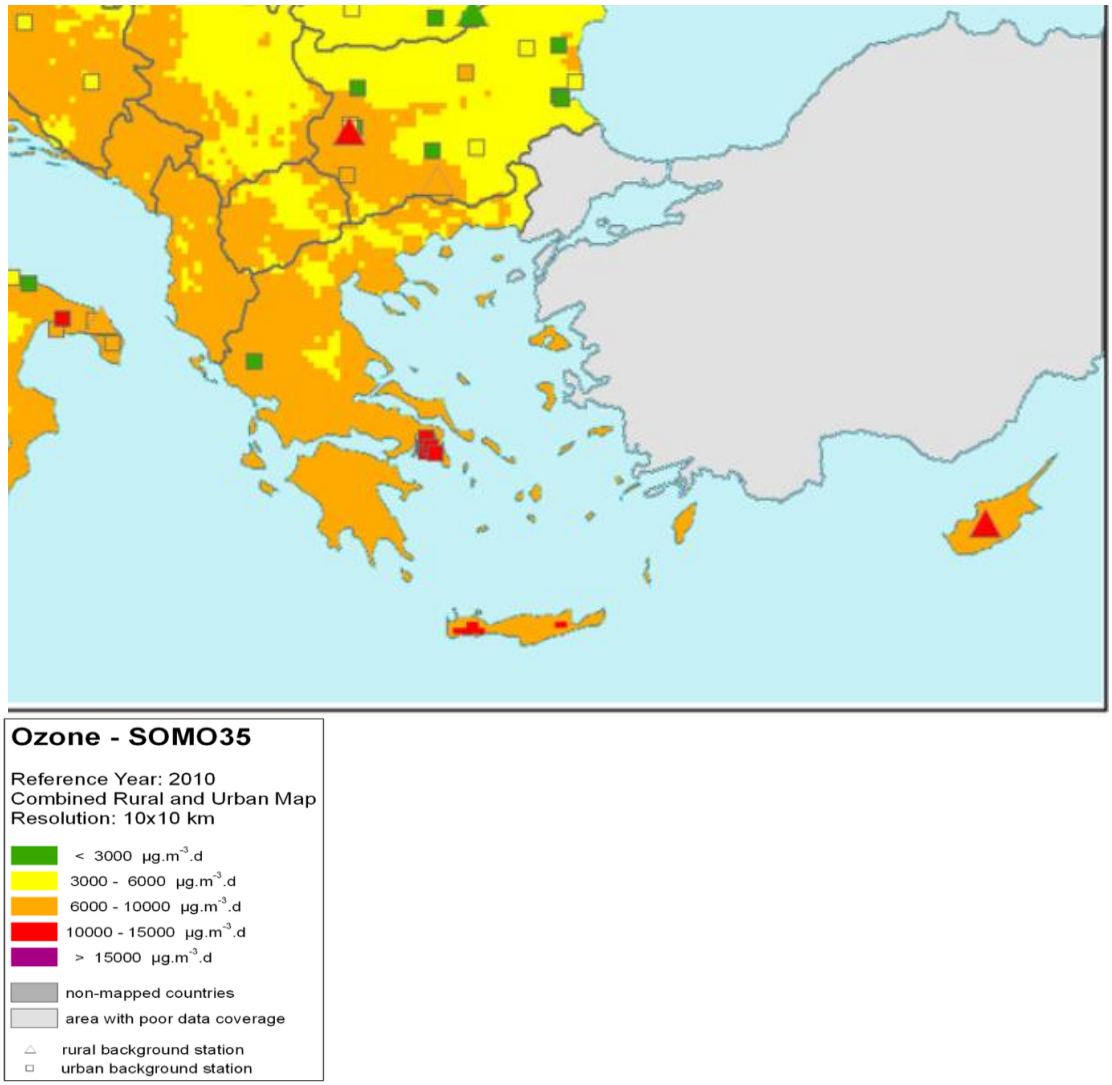
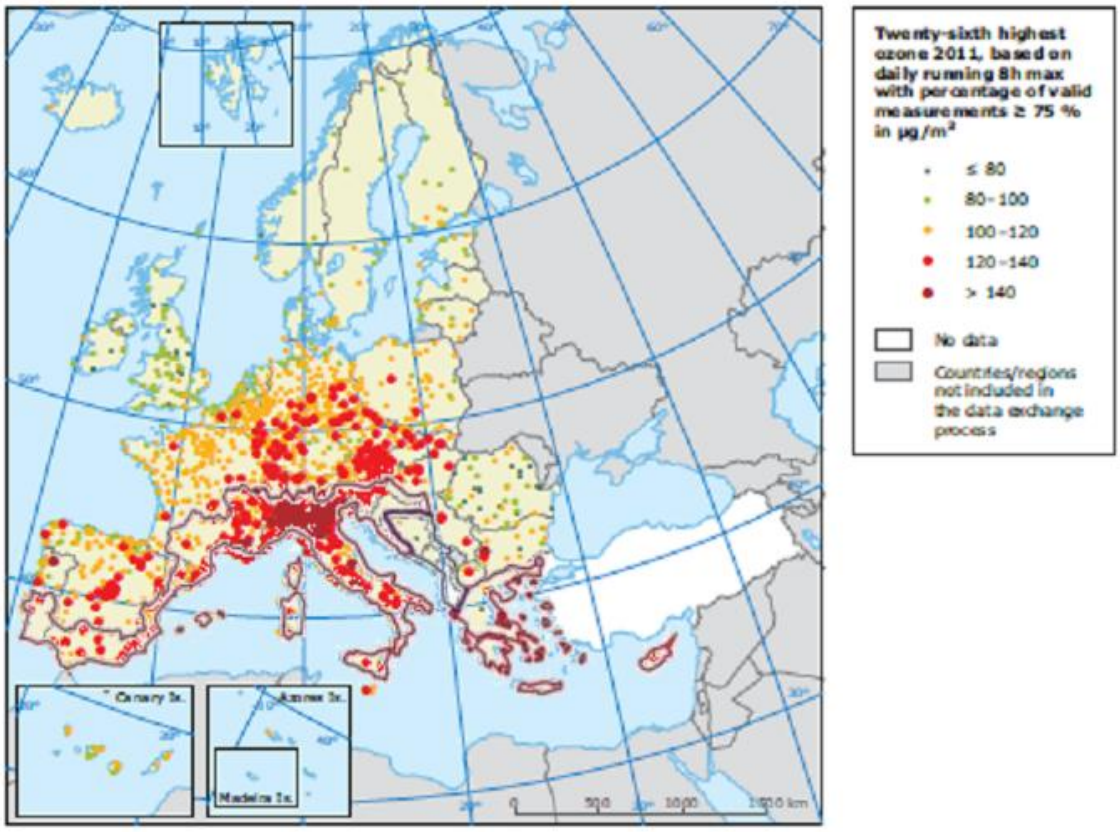


Figure 42. Exposure of Urban Population to air pollution caused by Ozone in µg/m3day in Europe. Magnification BALKAN- MEDITERRANEAN countries.



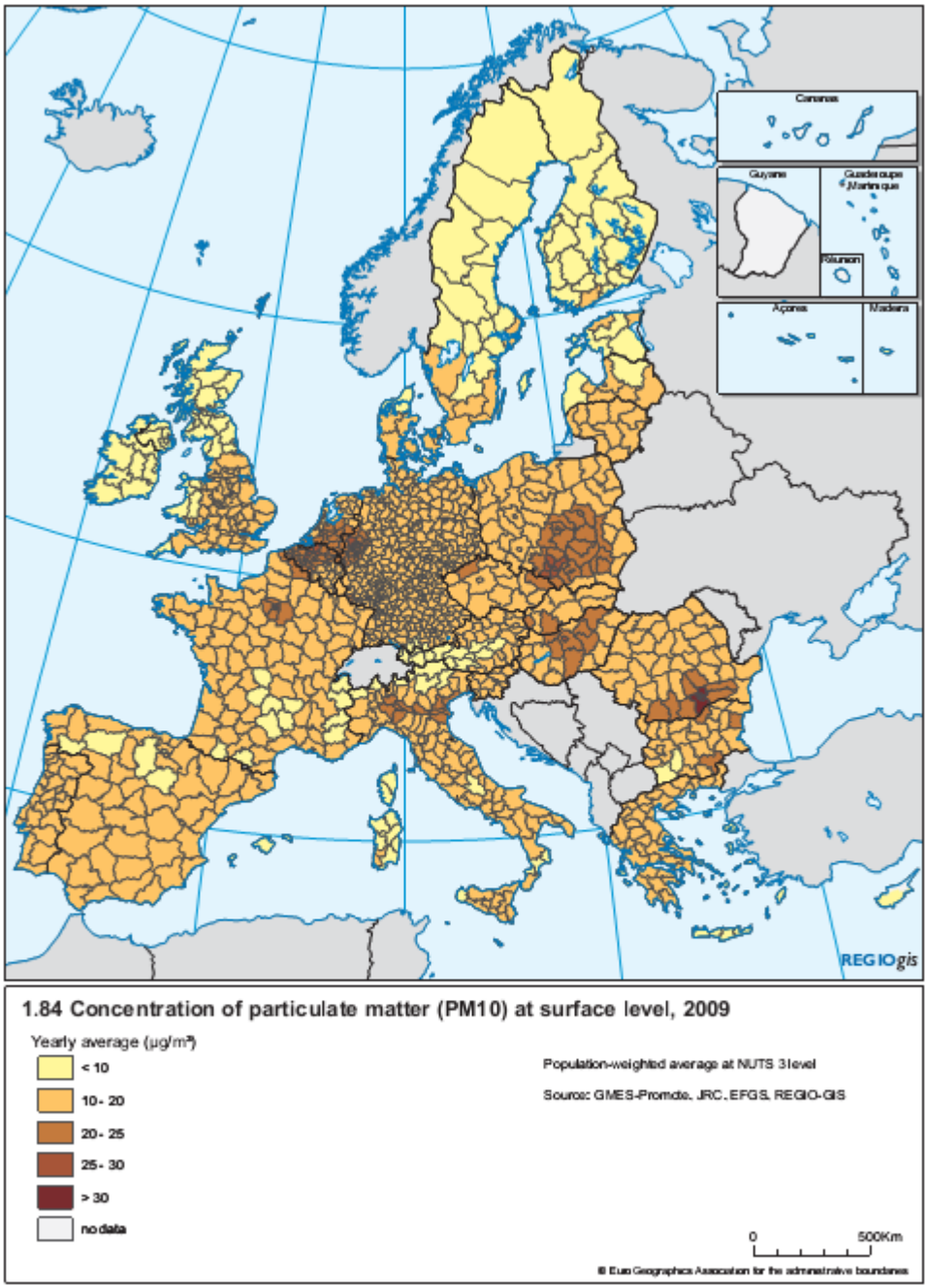
The following figure presents daily maximum 8hr concentration of Ozone in µg/m3day in Europe. From this figure it can extracted that all EU Balkan- Mediterranean countries show in general medium exposure to ozone and rather lower than central Europe.

Figure 43. Exposure of Urban Population to daily maximum 8hr concentration of Ozone in µg/m3day in Europe.



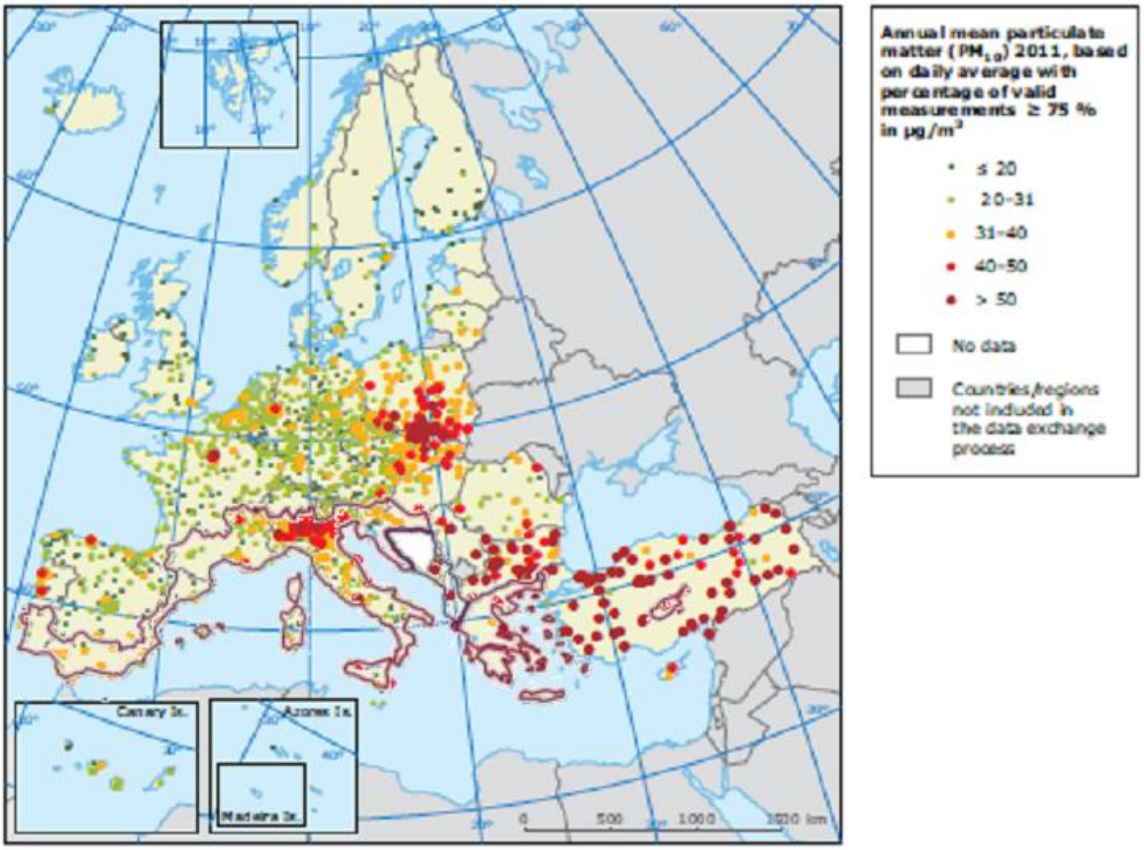
The following figures present Exposure of Urban Population to air pollution caused by Particulates in µg/m3day in Europe. From this figure it can extracted that all EU Balkan -Med countries show in general medium to high exposure to particulates and rather lower than central Europe.

Figure 44. Exposure of Urban Population to air pollution caused by Particulates in µg/m3day in Europe.



The following figure presents annual Mean concentration of Particulates PM10 in µg/m3day in Europe. From this figure it can extracted that all EU Balkan- Mediterranean countries show in general medium to high exposure to particulates and rather lower than central Europe.

Figure 45. Annual Mean concentration of Particulates PM10 in µg/m3day in Europe.



6.2.8 Climate Change – Energy Efficiency

6.2.8.1 EU Climate Change and Energy Framework Background.

EU Climate Change Framework Background.

Climate policy has two main aims — to reduce greenhouse gas emissions and to adapt to the consequences of future climate change. The way that both of these aims are pursued affects regions differentially-Reducing the use of fossil fuels in order to cut greenhouse gas emissions implies a need for restructuring in regions where the industries concerned are concentrated. At the same time, it will tend to increase growth in regions where renewable energy sources are located, which are not necessarily the same.

Regional and local authorities have an important role to play in taking measures to reduce emissions, since they are largely responsible across the EU for housing, public buildings, local transport, local taxes and charges and spatial planning. On an initiative of the European Commission, over 1750 mayors of municipalities have already agreed to going beyond the emission reduction targets defined for the EU and have signed a commitment to this effect.

The need to adapt to climate change also varies across regions. The evidence is that the Mediterranean Basin, the outermost regions and the Arctic are the most vulnerable, while mountain areas, in particular the Alps, many islands and coastal areas and densely populated floodplains face particular problems42. The Commission White Paper on adapting to climate change again emphasises the role of regional and local authorities in this and encourages the formulation of national and regional adaptation strategies by 2012.

EU Energy Framework Background.

EU energy policy also has potentially important differential effects on regions but has no regional dimension as such. The objectives are to maintain a competitive energy sector and achieve a sustainable and secure supply. Policy is implemented through various Directives, Regulations and Communications which are aimed at creating a single energy market in the EU so as to bring down prices for businesses and consumers alike, increasing the efficiency of energy use, reducing environmental impact and raising the share of renewables in energy supply. The latter might contribute to economic development in less favored regions by helping them capitalize on their natural resources (such as solar power, wind or biomass).

6.2.8.2 Bulgaria

The greenhouse effect is a global process in which the atmosphere retains part of solar energy, so the energy returned into space is less than the solar radiation entering the Earth's atmosphere. This causes temperatures in the lower atmosphere to rise and leads to climate change.

Rising mean annual temperatures disrupt climatic balance and cause changes in water resources, forests, coastal regions, agriculture, technology and human health.

According to the Bulgarian Academy of Sciences' National Institute of Meteorology and Hydrology, 2007 was the warmest year since 1988. Most climate models simulate air temperature increases in Bulgaria of between 2˚C and 5˚C and a doubling of atmospheric carbon dioxide (CO2) concentrations.

Bulgaria is compiling annual inventories of greenhouse gas (GHG) emissions by sources and sinks, using the methodology set out in the UNFCCC convention. The 2007 GHG inventory shows that overall GHG emissions in CO2 equivalent came to 75,793 gigagrammes (Gg) without taking land use, changes in land use and forestry (LULUCF) sector sinks into account. Net emissions, taking account LULUCF sinks, were 68,991 Gg. In 2007, CO2 emissions, expressed as CO2 equivalent, had the greatest share of overall GHG emissions at 77.7 %, followed by methane (CH4) emissions at 15.3 % and nitrous oxide (N2O) emissions at 6.7 %; polycyclic aromatic hydrocarbons (F) gases had a 0.3 % share.

The energy sector occupies a key place in the Bulgarian economy. It was the source of more than 74 % of aggregate GHG emissions in 2007. CO2 contributes the greatest share of aggregate GHG emissions in the sector, at up to 91 %.

CO2 contributed the greatest share of GHG emissions from the industrial processing in 2007 at 77 %. Second comes N2O with 19 % and third is CH4 with 1 % of overall emissions expressed in CO2 equivalent. The sector's most significant GHG sources are cement manufacture (CO2), steelmaking (CO2), lime making (CO2) and nitrous oxide manufacture (N2O).

Implementations of Europe 2020 Climate Change and Energy Targets for the Country are as follows:

Table 15. Bulgaria. Implementations of Europe 2020 Climate Change and Energy Targets

Europe 2020 headline targets	Current situation in Bulgaria	National 2020 target
20% greenhouse gas (GHG) emissions reduction compared to 1990	-12% (2020 projected emissions compared to 2005) +11% (2010 emissions Compared to 2005)	+20% (national binding target for non-ETS sectors compared to 2005)
20% of energy from renewables	13.8 % (2010)	16 %
20% increase in energy efficiency	17.4 Mtoe (2010)	- 3.20 Mtoe = 15.8 Mtoe

In this framework, the priorities of funding in order for the country to tackle the main Climate Change and Energy Efficiency development challenges and to implement the Europe 2020 strategy are towards

Environment-friendly and resource-efficient economy (Promote a low-carbon economy, energy efficiency and renewable energy sources, Invest substantially in the water and waste processing sectors, Protect the environment, improving management of natural resources, investing in adaptation to climate change, addressing specific natural and man-made risks)

6.2.8.3 Greece

The climate in Greece is changing. Since the end of the 1990s, the temperature has been increasing, especially during summer. The increase is lower in winter. According to the results from worldwide climate models, average temperatures in Greece are projected to increase from 3.1°C to 5.1°C by 2100, with an average value of 4.3°C, given any error that the downscaling method can bring in this estimate.

Regarding precipitation, there is a decreasing trend on an annual and seasonal level, mainly over the period 1980–2000, with increasing trends over the next years. Summer precipitation in Greece is projected to decrease, whereas winter precipitation is projected to increase. The intensities, patterns and duration of heavy rainfall are heavily affected by the local scale. The intensity of summer rainfalls increases, while presenting a decreasing trend for the winter and annual rainfalls. Only Athens presents a positive trend, due to heavy rainfalls over the last years.

According to EEA2012 data, base year GHG emissions in Greece (1990 for CO2, CH4, and N2O - 1995 for F-gases) were estimated at 107.71 Mt CO2 while 2007, greenhouse gas emissions (without LULUCF) were 131.85 Mt CO2 eq, showing an increase of 22.4 % compared to base year emissions (1990 for CO2, CH4, and N2O - 1995 for F-gases) and of 24.9 % compared to 1990 levels. This increase testifies that Greece is in compliance with the +25 % Kyoto Protocol target.

GHG2007 inventory depicts that major sectors in GHG emissions are Energy excluding Transport sharing 64% of total GHG emissions. Transport 18%, and Industrial processes 7%.

Implementations of Europe 2020 Climate Change and Energy Targets for the Country are as follows:

Table 16. Greece Implementations of Europe 2020 Climate Change and Energy Targets

Europe 2020 headline targets	**Current situation in Greece**	**National 2020 target**
Energy efficiency	n/a (the Commission is not yet able to provide this overview)	2,7 Mtoe
Renewable Energy	Starting from 5,8% in 2005, the share of renewable	18% of gross final energy consumption from renewable sources

Europe 2020 headline targets	Current situation in Greece	National 2020 target
	energy in gross final energy consumption has been increased to 8.2% (in 2011)	
20% greenhouse gas (GHG) emissions reduction compared	+3% (2020 projected emissions compared to 2005) -8% (2010 emissions compared to 2005)	-4 % (national binding target for non-ETS sectors compared to 2005)

In this framework, the priorities of funding in order for the country to tackle the main Climate Change and Energy Efficiency development challenges and to implement the Europe 2020 strategy are towards promoting environment-friendly and efficient use of resources, and climate change resilience for sustainable growth and jobs (Shift to an energy efficient, low-carbon economy and promotion of renewable energy resources, Improve management of natural resources and environmental protection, Climate change mitigation and adaptation including risk management, Promote sustainable urban mobility)

6.2.8.4 Cyprus

According to the available information from the National Meteorological Service (2009), temperature has increased by 1oC and precipitation reduced by 100mm (corresponding to 17%) during the last 100 years. These changes, are not only been noticed in statistical data, but have already caused significant impacts to the everyday life of the country. During the last 10 years the extreme weather events are showing an increasing trend and so is their intensity, droughts are more often and longer. At the same time the demand in water is increasing causing severe water scarcity. The latest example is the 2008 drought, which has caused the government to take the decision of importing water from Greece. Forest wildfires are increasing in frequency due to the high temperatures and extensive droughts and forests are already experiencing the impacts of the reduction in precipitation and high temperatures.

Emission of greenhouse gases without LULUCF (land use, land use change and forestry) increased by 93.6% between 1990 and 2008, which corresponds to GHG emissions of 4,932 Gg CO2 equivalents. 76% of the emissions without LULUCF in 2008 were from the sector of energy, compared to 67.5% in 1990. The largest contributor to the emissions is CO2 with 84% in 2008 compared to 80% in 1990 whereas CH4 and N2O decreased from 14% to 10% and 6% to 5% respectively. In 1990 no emissions have been reported for F-gases, whereas in 2008 they contributed 1% to the total emissions.

Implementations of Europe 2020 Climate Change and Energy Targets for the Country are as follows:

Table 17. Cyprus. Implementations of Europe 2020 Climate Change and Energy Targets

Europe 2020 headline targets	Current situation in Cyprus	National 2020 target
20% greenhouse gas (GHG) emissions reduction compared to 1990	-19% (2020 Projected emissions compared to 2005)	-5%
20% of energy consumption from renewables	-5% (2010 emissions compared to 2005)	(national binding target for
20% increase in energy efficiency	5.7% (2010)	non-ETS sectors compared to

In this framework, the priorities of funding in order for the country to tackle the main Climate Change and Energy Efficiency development challenges and to implement the Europe 2020 strategy are towards an Environment friendly and resource-efficient economy for growth and jobs (Improve management of natural resources and environmental protection, Climate change adaptation and mitigation, Shift to an energy efficient, low-carbon economy and promotion of Renewable Energy Resources (RES)

6.2.8.5 Albania

The Albanian Government became part of the United Nations Framework Convention on Climate Change (UNFCCC) in 1995 and ratified the Kyoto Protocol in 2004, so acknowledging the importance of climate change and the need to take effective measures to mitigate its consequences.

Levels of greenhouse gas (GHG) emissions in Albania are about four to five times lower than average international levels. This is because a high percentage of electricity is produced by hydropower, but also because energy consumption per person is low and industrial productivity has continued to fall.

Based on EEA2012 data, according to computer models projections the climate change scenarios for Albania project an annual increase in temperature up to 1°C, 1.8°C, 3.6°C respectively by 2025, 2050 and 2100. The seasonal temperature and precipitation changes suggest changes towards milder winters, warmer springs, drier autumns, drier and hotter summers.

Following two figures show an overview of GHG emissions for the period 1990-2000. The figures below show emissions of the most important GHGs, carbon dioxide (CO2) and methane (CH4) from the six main economic sectors, recommended by the Intergovernmental Panel for Climate Change (IPCC): energy, including all types of activity related to extraction, transportation, processing and combustion of fossil fuels, industrial processes, solvent and other product use, agriculture, land-use change and forestry, and waste. As shown in the following figures the main contributor of CH4 emissions is agriculture (74-77 %), followed by waste (8-22 %) and energy (5-20%) while the main contributor of CO2 is the energy sector (44–79 %) followed by land-

use change and forestry which contributed 33 % in 1990 but just 16 % in 2000. Industrial processes contributed 2.6-4.9 % while CO2 emissions from the waste, solvents and agriculture sectors were not significant.

Figure 46. CH4 emissions by economic sectors (%). Period 1990-2000.

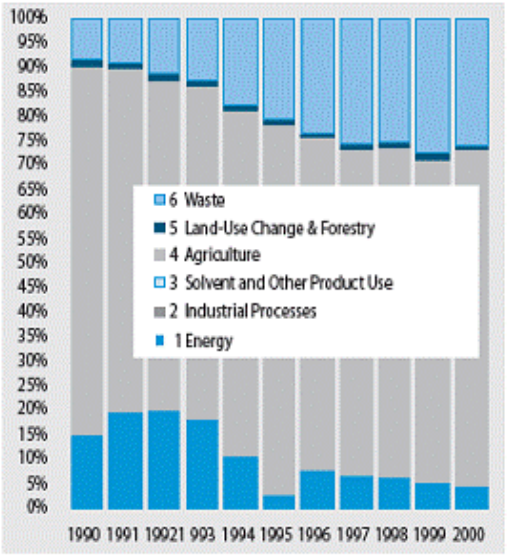
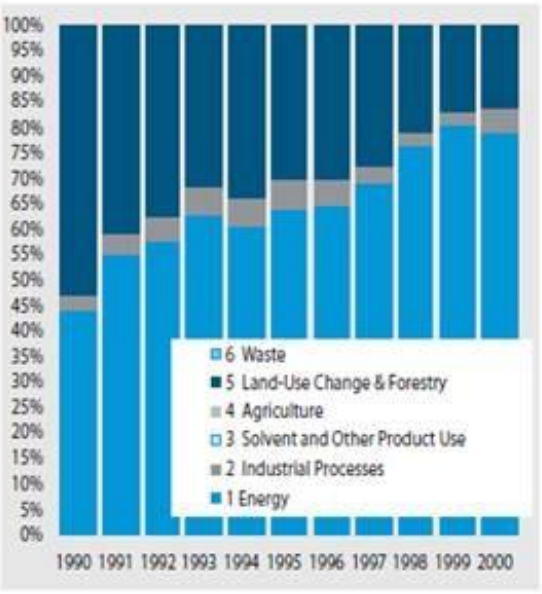


Figure 47. CO2 emissions by economic sectors (%). Period 1990-2000.



6.2.8.6 Former Yugoslav Republic of Macedonia

Based on EEA2012 data

- Total CO2-eq emissions in the country in the period 1990-2002 range from 11.9 to 14.4 Mt CO2-eq .
- Emissions in 2000 equaled 14.318 kt CO2-eq or 7.16 t CO2-eq per inhabitant.
- GHGs emission for the period 1990-2002 had decreasing trend, namely by 35% in industrial processes sector and by 22% in agriculture, while it was variable in LUCF sector and unchanged in the waste sector.
- Growth in GHGs emission has been noted only in energy sector (by 6%).
- Falling trend in industrial processes and agriculture sectors is due to reduced activities of the national economy during the reporting period.
- Major source of GHG is the electricity-related emissions based on lignite-based fossil fuel

Following two figures show an overview of GHG emissions for the year 2000. The figures below show GHGs emissions rom the six main economic sectors, recommended by the Intergovernmental Panel for Climate Change (IPCC): energy 64,44%, extraction, transportation, processing and combustion of fossil fuels, industrial processes 6,24%, agriculture 9.64%, land-use change and forestry 13.79%, and waste 5.89%, while CO2 and CH4 correspond roughly to 80.00% and 12,00% of total GHG

Figure 48. Sectoral contribution to total GHG emission in 2000.

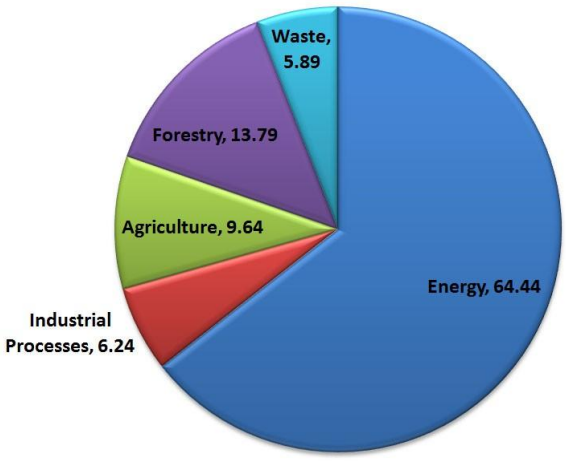
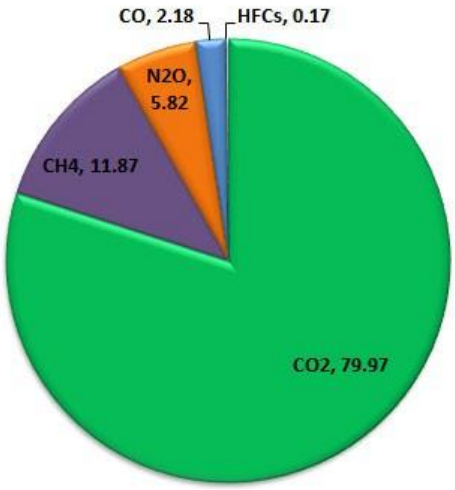


Figure 49. GHGs contribution to total emission in 2000.



The country ratified the Kyoto Protocol in 2004. According to its first greenhouse gases (GHGs) inventory, the country was responsible for the emission of 15.08 million tonnes C02-eq of GHGs in 1998, of which over 74% came from the energy sector, followed by agriculture (10%). waste (>8%). industrial processes (7%). and land use change and forestry (<1%).

Climate change in the country is expected to cause negative effects on soil production, causing degradation, desertification, and further soil erosion. The change in temperature regime and perturbation of precipitation distribution over the year will cause disturbances to ecosystems. Considerable movement of plant and animal species in a south-north direction, as well as along the vertical gradient is expected. According to hydrological analysis, the most vulnerable regions will be the eastern and south-eastern parts, while the most vulnerable water economy sectors are water supply and irrigation.

The vulnerable sectors where adaptation measures have been proposed by the First National Communication on Climate Change are: agriculture, land-use. land-use change and forestry, biodiversity, hydrology and water resources, and human health.

On the mitigation side, according to the First National Communication on Climate Change, the sector with highest potential is the energy sector. However, effective national planning in order to attain mitigation of GHG emissions is limited, mostly due to the lack of financial resources and the low potential to attract foreign investment. In addition, insufficient communication between the ministries, insufficient expertise and preparedness to use new technologies, low awareness, different stakeholders' interests etc., have been identified as constraints.

6.2.8.7 Limiting Climate Change in Europe

In 2007, the European Council adopted an integrated approach to tackling climate change and increasing energy security while strengthening EU competitiveness, with the aim of transforming the Union into a highly energy-efficient, low carbon economy. To this end, a number of targets (so-called '20-20-20'targets) were set to be met by 2020:

- a reduction in EU greenhouse gas emissions of at least 20% below 1990 levels8;
- 20% of EU final energy consumption to come from renewable sources;
- a reduction in primary energy use of 20% from projected levels to be achieved by improving energy efficiency.

Binding legislation to implement the 20-20-20 targets was agreed by the European Parliament and the Council in December 2008 and became law in June 2009. There were four elements to this:

1 A revision of the Emissions Trading System (EU ETS), with the number of emission allowances available to large emitters being progressively reduced from 2013 to 21% below the 2005 level by 2020 and the free allocation of allowances replaced by auctioning.

2 An'Effort Sharing Decision'governing emissions from sectors not covered by the EU ETS, such as transport, housing, agriculture and waste, under which each Member State committed to a binding national emissions limitation target for 2020 taking into account GDP per head. These national targets should reduce the EU's overall emissions from these sectors by 10% by 2020 on 2005 levels.

3 Binding national targets for renewable energy which collectively should increase the share across the EU to 20% by 2020.

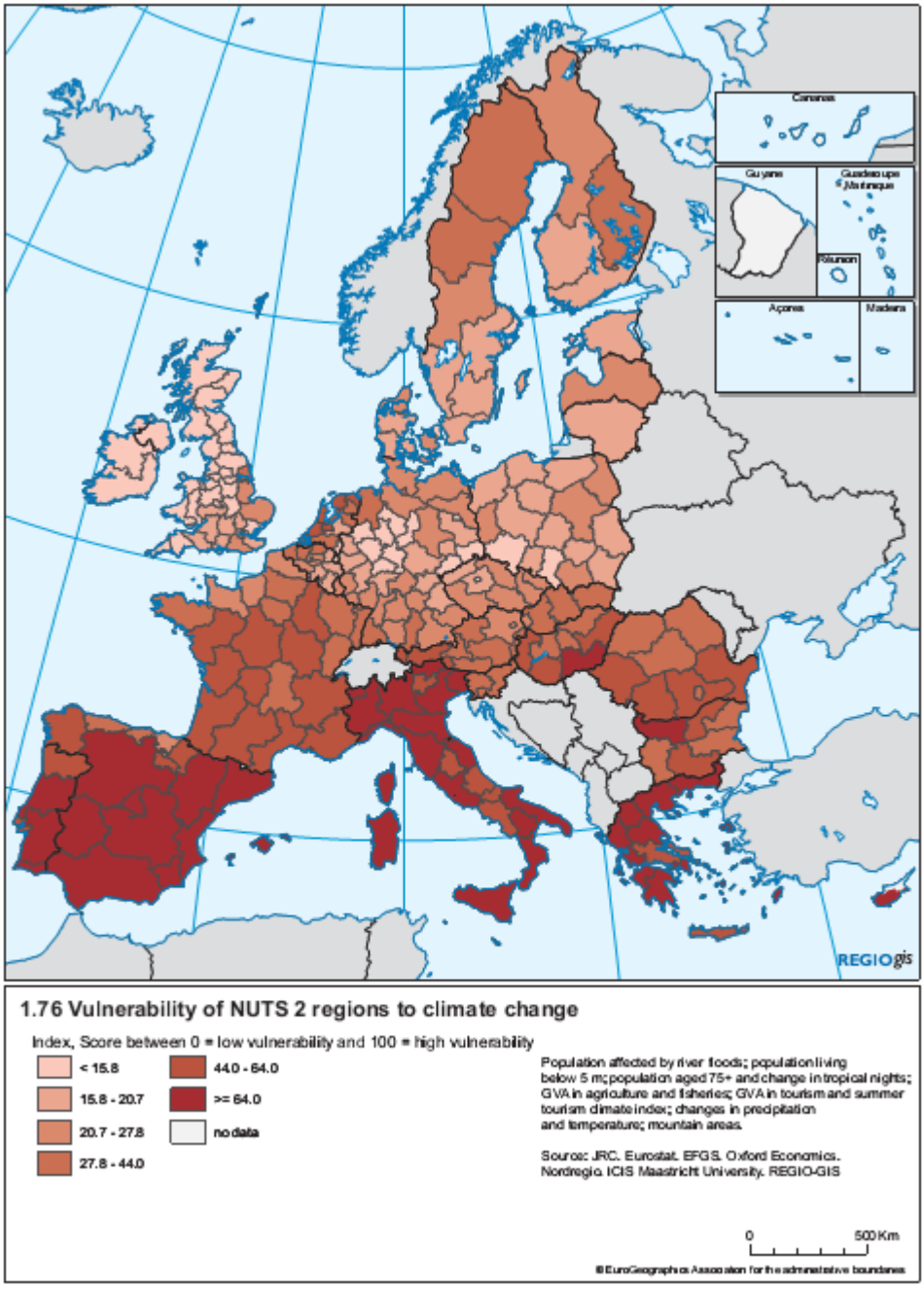
4 A legal framework to encourage the development and safe use of carbon capture and storage (CCS).

Up until now, the implementation of the EU ETS, which started in 2005, has not resulted in a significant change in C02 prices, partly because the allocations for the 2005-2007 trading period were above annual emissions while for the 2009-2012, the economic crisis reduced emissions below the anticipated level. The package is, therefore, an opportunity to strengthen the EU ETS, since, between 2013 and 2020, it should be a key means of reducing emissions to meet the target of 20% below 1990 levels.

6.2.8.8 EU2020-Agreggated Data- Climate change Vulnerability Index.

Regions subject to the most pressure are generally located in the South and the South East of the EU. In particular the regions that appear to be more vulnerable to climate change are Extremadura, Algarve, Ionia Nisia, and Thessalia. Many regions in Spain, Portugal, Italy, **Greece, Bulgaria, Cyprus** and Malta, however, are also likely to be affected significantly (following figure).

Figure 50. Climate Change Vulnerability Index in Europe**.**



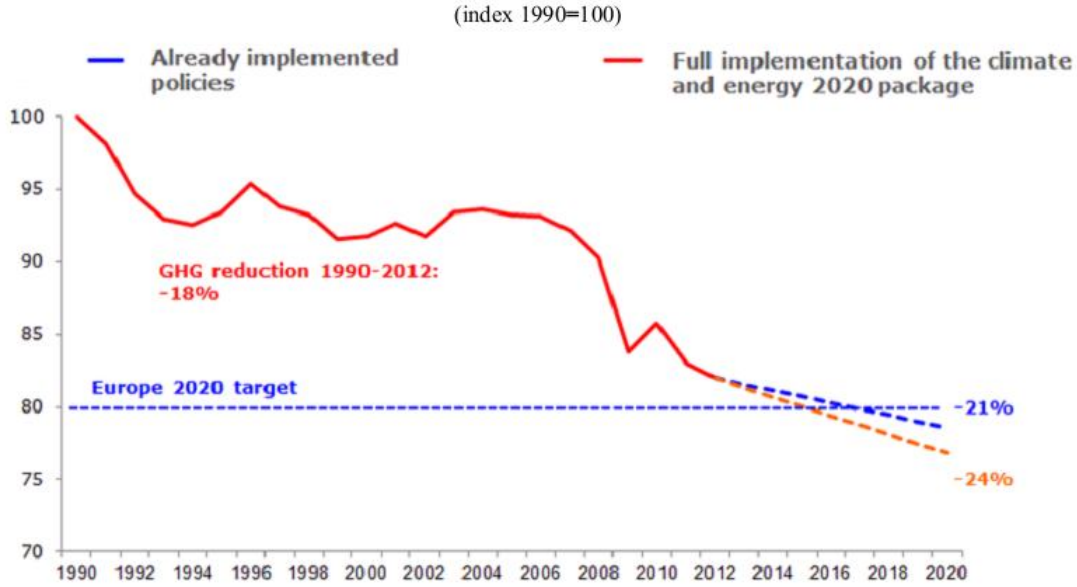
6.2.8.9 EU2020-Agreggated Data- Reduction of greenhouse gas emissions

Following a sizeable reduction of greenhouse gas emissions, the EU is close to achieving its Europe 2020 target of a 20% reduction compared to 1990 levels.

Between 1990 and 2012, greenhouse gas emissions at EU level decreased by 18% Current climate and energy policies have delivered on progress, with the economic slowdown also having a significant effect on emissions reduction. A slight increase in greenhouse gas emissions was observed in 2010, during the temporary recovery. This performance is all the more significant as the European economy has grown by around 45% in real terms since 1990 and it shows a clear decoupling of economic growth and greenhouse gas emissions. As a result, in 2012 the European economy was almost twice less carbon-intensive - carbon intensity refers to the amount of emissions released per unit of GDP - than in 1990.

Based on the latest trends, the Europe 2020 target related to greenhouse gas emissions seems within reach. In line with the encouraging developments of recent years, the reduction of greenhouse gas emissions could exceed the target and reach 24% by 2020.

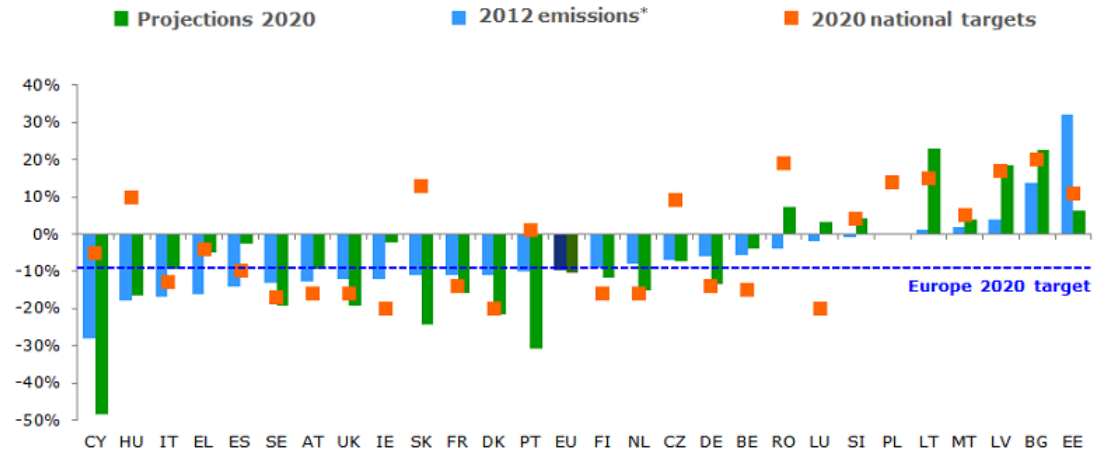
Figure 51. EU Greenhouse gas emissions in 2000, 2012 and 2020



Around half of the Member States have already reached their Europe 2020 target for reduction of greenhouse gas emissions in non-Emissions Trading Scheme (ETS] sectors2. The national targets in this area measure greenhouse gas emissions in sectors not covered by the EU ETS, compared to 2005 levels. They range from an objective of a 20% reduction of emissions to a 20% increase. According to 2012 data, for 15 Member States (Cyprus, Hungary, Italy, Greece, Spain, Portugal, Czech Republic, Romania Slovakia, Lithuania, Slovenia, Malta, Latvia, Bulgaria and Poland) greenhouse gas emissions were below their respective targets

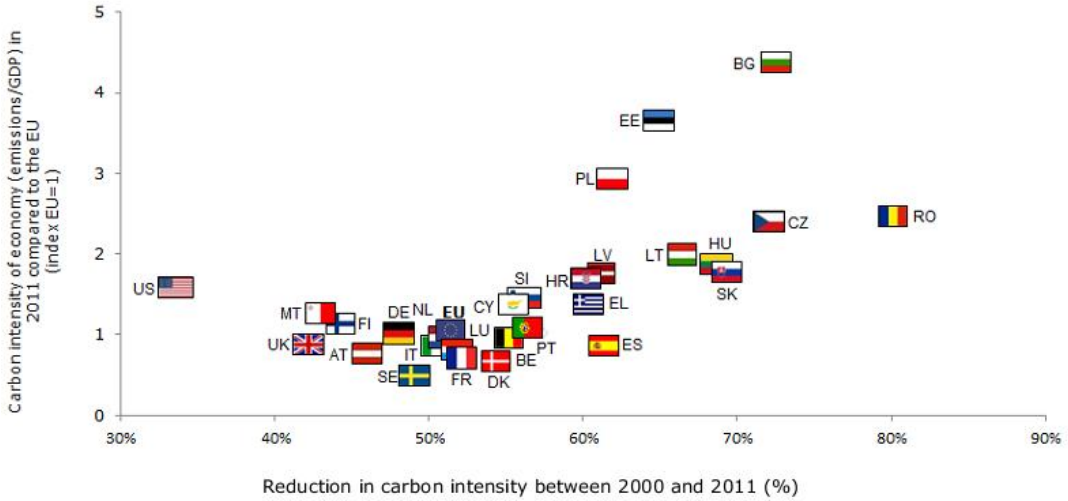
for 2020. Most of the other Member States have also lowered their emissions and thus achieved some progress, without meeting their target sc far. Luxembourg, Denmark, Germany, Belgium, Finland and the Netherlands are the most distant from their objectives. According to the latest available national projections, in 13 Member States (Germany, the Netherlands, Latvia, Bulgaria, Italy, Finland, Austria, Spain Lithuania, Belgium, Ireland, Slovenia and Luxembourg) the existing policies would not be sufficient to meet the national targets by 2020.

Figure 52. Change in greenhouse gas emissions in non-ETS sectors in EU Member States



Between 2000 and 2011, carbon intensity decreased in all Member States, although progress varies a lot. Highly carbon-intensive countries have generally achieved a sizeable reduction; low carbon-intensive countries display more limited progress.

Figure 53. EU Situation in 2011 and progress in terms of carbon intensity since 2000, by country



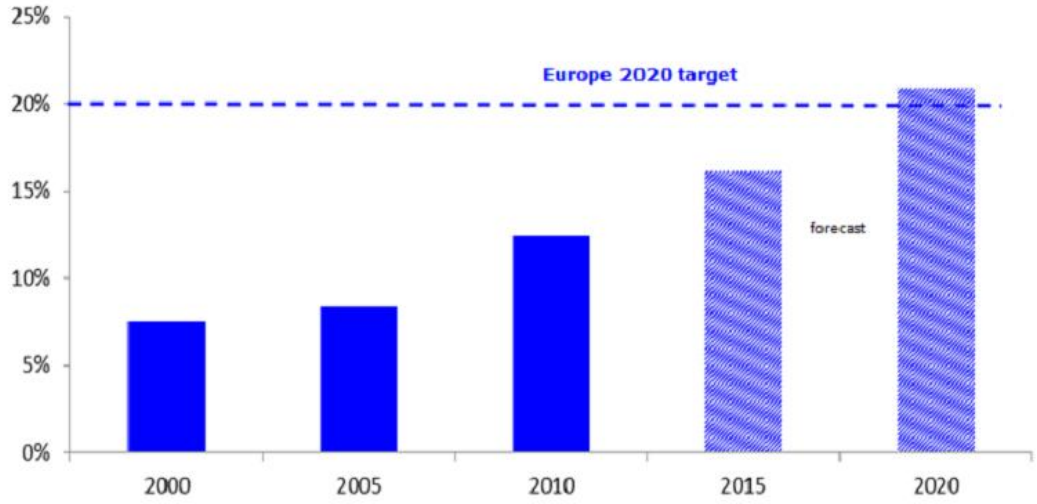
6.2.8.10 EU2020-Agreggated Data- use of renewable energy

There has been a steady increase in the use of renewable energy at EU level since 2000 and, provided it is sustained, the EU is on the way to reaching the Europe 2020 target of increasing the share of renewables in final energy consumption to

20%. From 7.5% in 2000 , the share of renewables in gross final energy consumption increased to 8.5% in 2005 and 14.4% in 20124, i.e. 5.6 percentage points below the Europe 2020 target, because of the deployment of support schemes and the introduction of incentives to foster the use of renewables. The EU is now in the lead in terms of investment in renewables, in particular a rapid development of wind and solar energy.

Based on the latest trends, the Europe 2020 target related to renewable energy sources seems within reach. In line with the encouraging developments of recent years, the share of renewables in gross final energy consumption might approach 21% in 2020, if the effort of recent years is maintained.

Figure 54. EU share of renewable energy in gross final energy consumption, 2000-2020



Overall progress has been observed but efforts are still needed in most Member States. The national targets range from 10% for Malta to 49% in Sweden. Generally, all Member States have increased the use of renewable sources of energy since 2005, however only three of them, Sweden, Estonia and Bulgaria, have so far reached their national targets. Finland, Austria and Czech Republic are very close to their respective objectives. France and the United Kingdom stand around 10 percentage points away from their targets.

Looking at developments over time, the group of best performers comprises Sweden, Austria and Estonia, which combine the greatest progress since 2005 and high levels of renewables' use. Malta, Luxembourg, Belgium, the United Kingdom, the Netherlands and France show both low performances and only moderate progress since 2005. As regards the divergences across the EU, the inter-country gap has increased since

2005, from 40.4 percentage points to 52.1 percentage points in 2012, with values ranging from 0.3% in Malta to 52.4% in Sweden.

Figure 55. Share of renewables in EU Member States (% of gross final energy consumption)

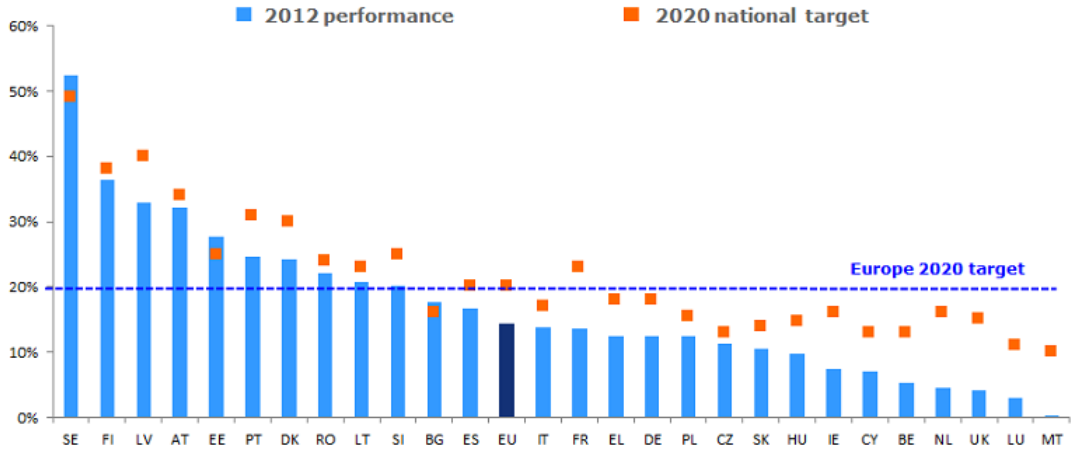
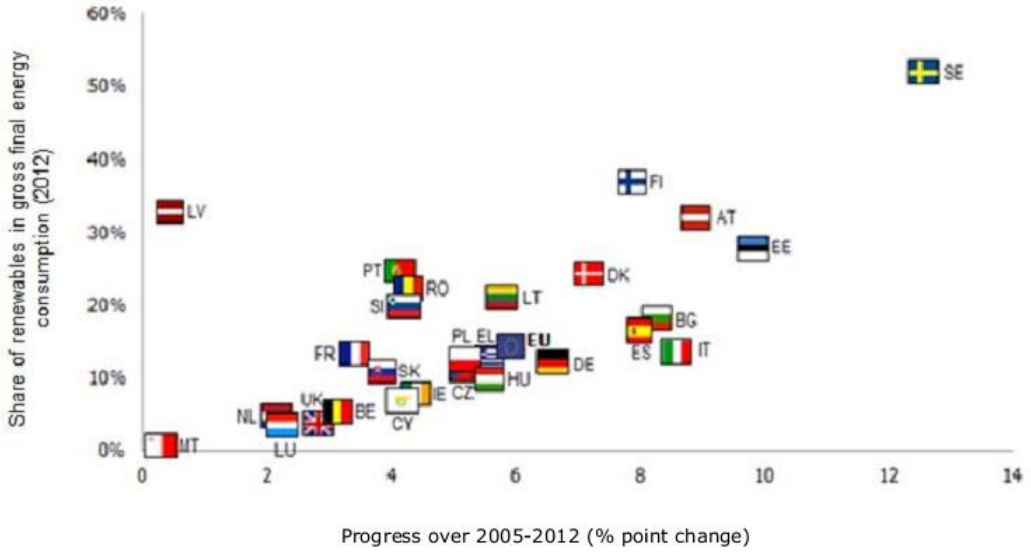


Figure 56. EU Situation in 2012 and progress since 2005, by country

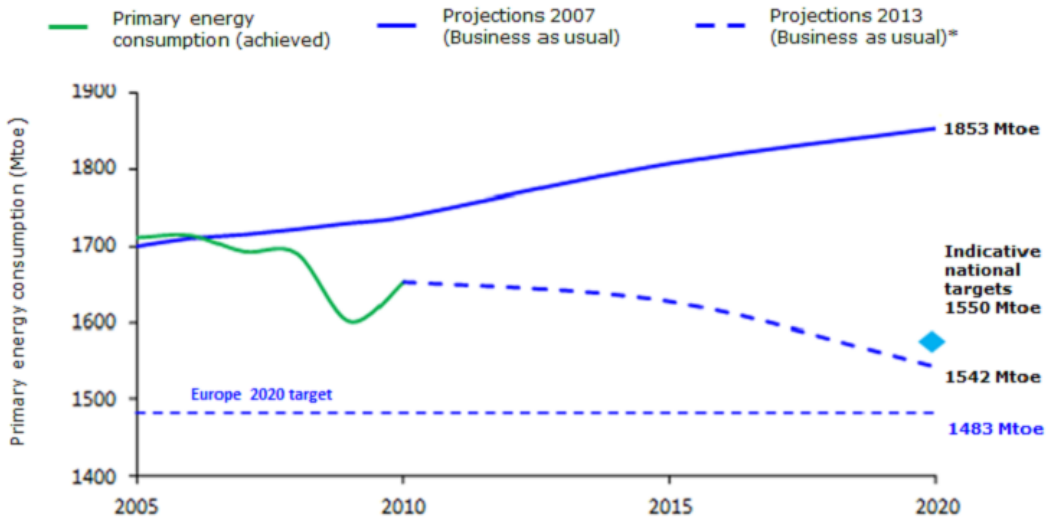


6.2.8.11 EU2020-Agreggated Data- Increase in Energy Efficiency

Some progress has been achieved recently as regards energy efficiency, but needs to be consolidated over the coming years to meet the Europe 2020 target of a 20% increase in energy efficiency, corresponding to 1 483 Mtoe of primary energy consumption. Between 2000 and 2006, primary energy consumption has steadily increased, from 1 617.8 Mtoe in 2000 to a peak of 1 711.6 Mtoe in 2006. As of 2007, the onset of the crisis led to an almost uninterrupted fall in primary energy consumption, to 1 583.5 Mtoe in 2012. As for greenhouse gas emissions, a slight rebound in primary energy consumption was seen in 2010, as a result of

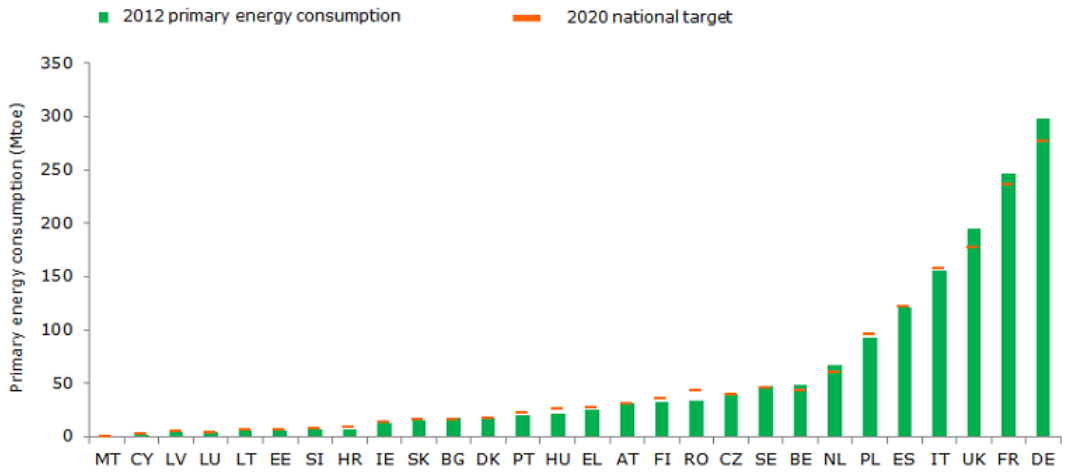
the temporary recovery. A large amount of this fall in primary energy consumption can be explained by the contraction of economic activity generated by the crisis. However, some structural changes are also taking place. Reaching the 2020 target would mean cutting primary energy consumption by a further 6.3% by 2020. Based on the latest trends, further efforts are needed to meet the energy efficiency target. The recent decrease in primary energy consumption needs to be pursued and anchored in long-lasting shifts in energy consumption patterns. Generally, the crisis has had an impact on primary energy consumption. Therefore, the durability of the encouraging latest developments, as well as the respective weight of the cyclical and structural factors can be questioned. Avenues for further action exist in all sectors, in particular in transport, where little progress has been obtained so far.

Figure 57. EU primary energy consumption, 2005-2020



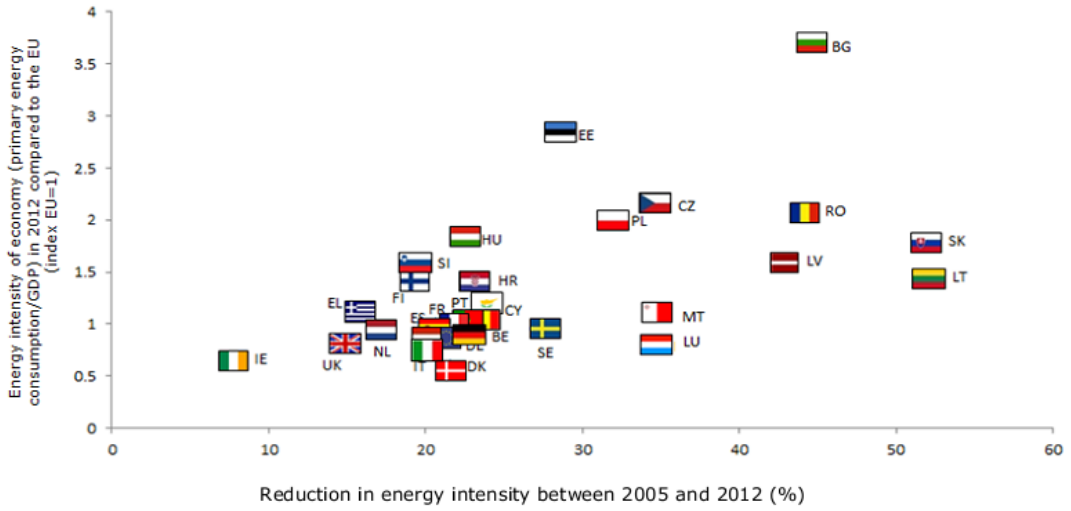
The picture regarding energy efficiency is mixed. The Energy Efficiency Directive defines the energy efficiency target at European level and requires the Member States to have an indicative national target for 2020. This needs to be translated into levels of primary and final energy consumption for comparability reasons. Overall, in 2012, Cyprus, Estonia, Greece, Finland, Croatia, Hungary, Ireland, Lithuania, Latvia, Portugal, Romania, Slovakia, Luxembourg, Poland, Spain, Italy and Slovenia had levels of primary energy consumption below their indicative national targets.

Figure 58. Primary energy consumption in EU Member States



Energy intensity - the amount of primary energy consumption per unit of GDP -improved in all Member States between 2005 and 2011. Overall, the countries with the highest energy intensity have sizeably reduced it. The decrease is more moderate for less energy-intensive Member States.

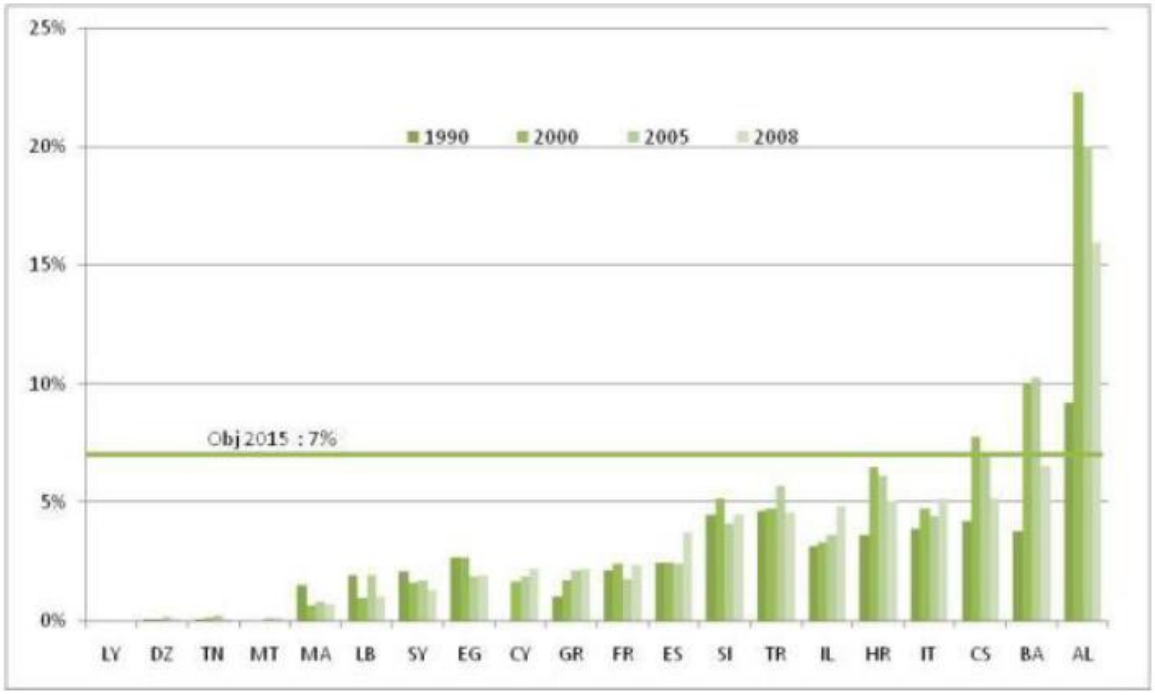
Figure 59. EU Situation in 2012 and progress since 2005, by country



6.2.8.12 EU-Share of Renewable Energies in Energy Balance

The following figure represents the part of renewable energies in total energy supply.

Figure 60. Percentage of Renewable Energies in Total Primary Supply



6.2.9 Soil

6.2.9.1 Bulgaria

The basic dangers for soil deterioration in Bulgaria are:

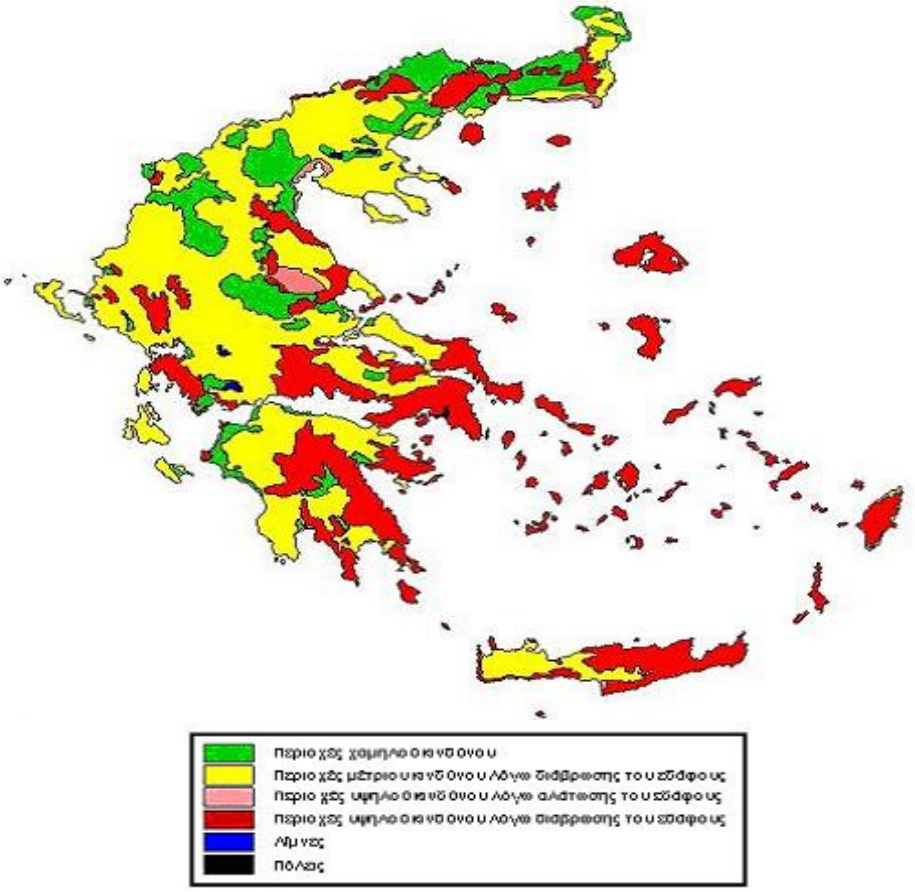
- Inadequacy of plans and infrastructure for treatment and environmental accepted disposal of urban and industrial solid wastes.
- Soil erosion- Desertification. In general East Mediterranean Europe has an increased relevant risk.
- Coastal Erosion

Other main soil pollution is the deposition of air pollutants from metallurgical plants, soil acidification due to over-fertilization and soil erosion. According to data of 1996, 393 hectares have been damaged by mining, quarrying or other similar works. Coal mining is mainly responsible (almost 90 per cent). 49 ha have been restored, which is only 12 per cent of the affected lands. There is an increase in soil to be decontaminated in the country.

6.2.9.2 Greece

In Greece the main soil deterioration problem is desertification and salinity issues especially in South Greece and Coastal areas. Desertification risk is depicted at the following figure.

Figure 61. Desertification Risk in Greece.



The basic dangers for soil deterioration in Greece are:

- Inadequacy of plans and infrastructure for treatment and environmentally accepted disposal of urban and industrial solid wastes.
- Soil erosion- Desertification. In general East Mediterranean Europe has an increased relevant risk.
- Coastal Erosion

6.2.9.3 Cyprus

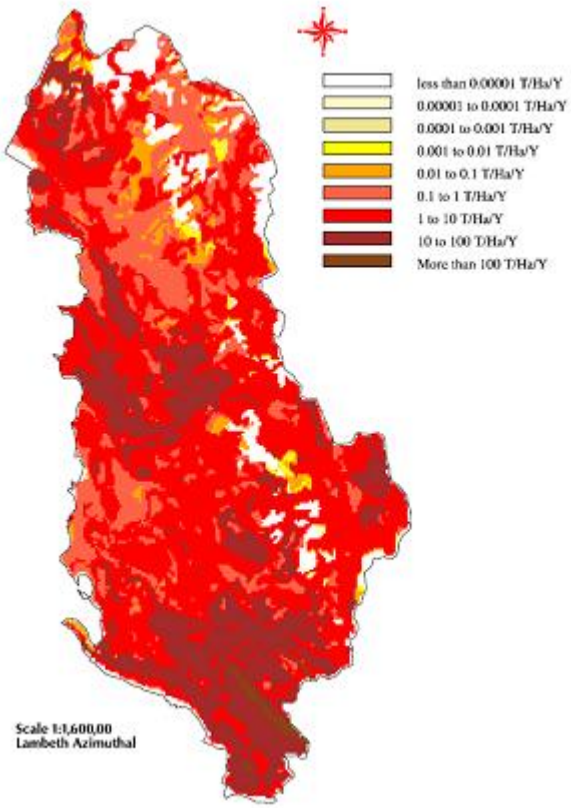
The basic dangers for soil deterioration in Cyprus are:

- Inadequacy of plans and infrastructure for treatment and environmentally accepted disposal of urban and industrial solid wastes.
- Soil erosion- Desertification. In general East Mediterranean Europe has an increased relevant risk.
- Coastal Erosion

6.2.9.4 Albania

Soil erosion and deterioration is a major problem for Albania. The figure that follows shows the relevance of erosion environmental issue and the necessity for protection measures. Erosion Rates are quite large in magnitude and more than 10 t/(ha.year) in southern and central part of the country. There are three region where yearly erosion rate is over than 100 t/(ha.year).

Figure 62. Estimated Erosion Rate in Albania.



The basic dangers for soil deterioration in Albania are:

- Inadequacy of plans and infrastructure for treatment and environmentally accepted disposal of urban and industrial solid wastes.
- Soil erosion- Desertification.
- Coastal Erosion

Another relevant soil pollution problem is the management of industrial mainly chemical and mining waste, a major part of which is focused on clean-up and remediation of polluted soil in the past. Progress has been achieved in assessment and prioritization of sites polluted by past activities and clean-up of the most polluted area. The clean up of the chemical plant in Durres was completed in 2011.

6.2.9.5 Former Yugoslav Republic of Macedonia

The basic dangers for soil deterioration in Former Yugoslav Republic of Macedonia are:

- Inadequacy of plans and infrastructure for treatment and environmentally accepted disposal of urban and industrial solid wastes.
- Soil erosion- Desertification.

6.2.9.6 EU-Soil Pollution Aggregated Data

The following figure presents Soil contamination by heavy metals Pb, Cr and Ni in Europe. From this figure it can extracted that in relation to EU Balkan -Med countries Greece and Albania show in general high concentrations of Cr and Ni and Bulgaria medium concentrations of Pb.

Figure 63. Soil contamination by heavy metals in agricultural soils and pastures lands (2006) in Europe. Pb.

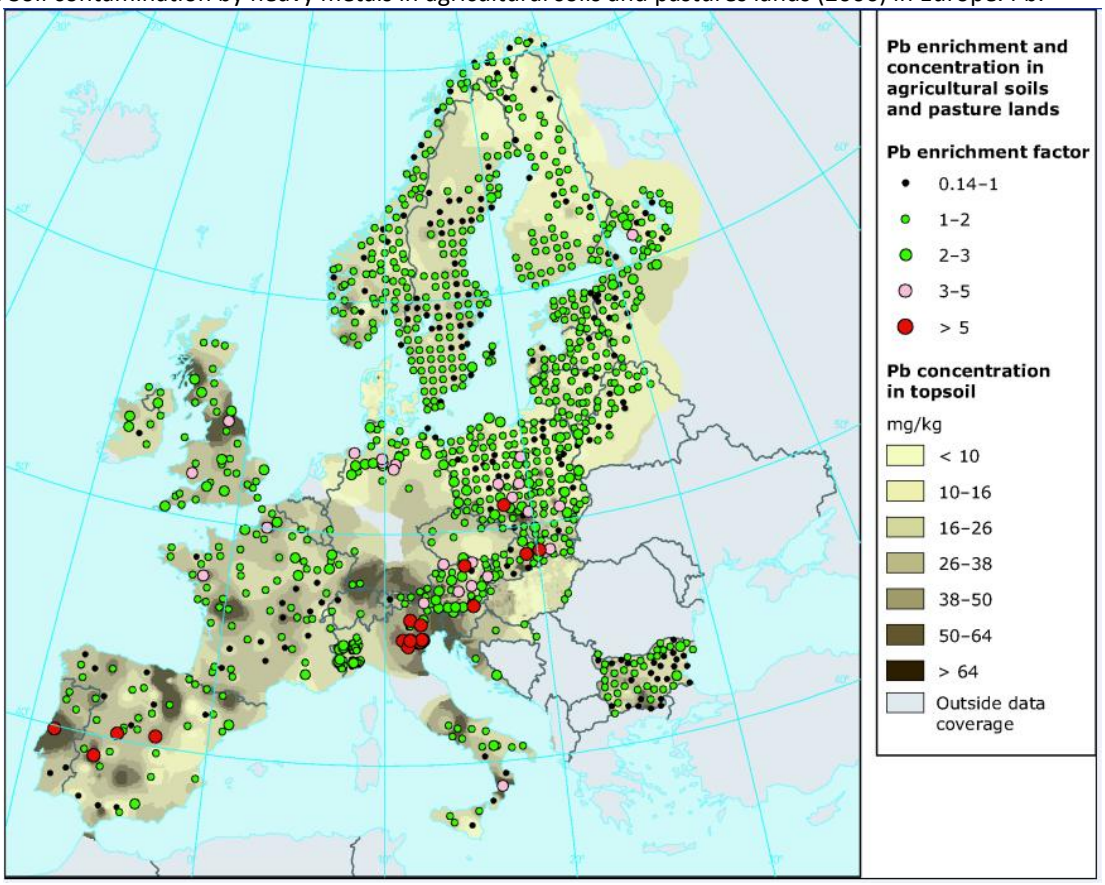


Figure 64. Soil contamination by heavy metals in Europe. Cr.

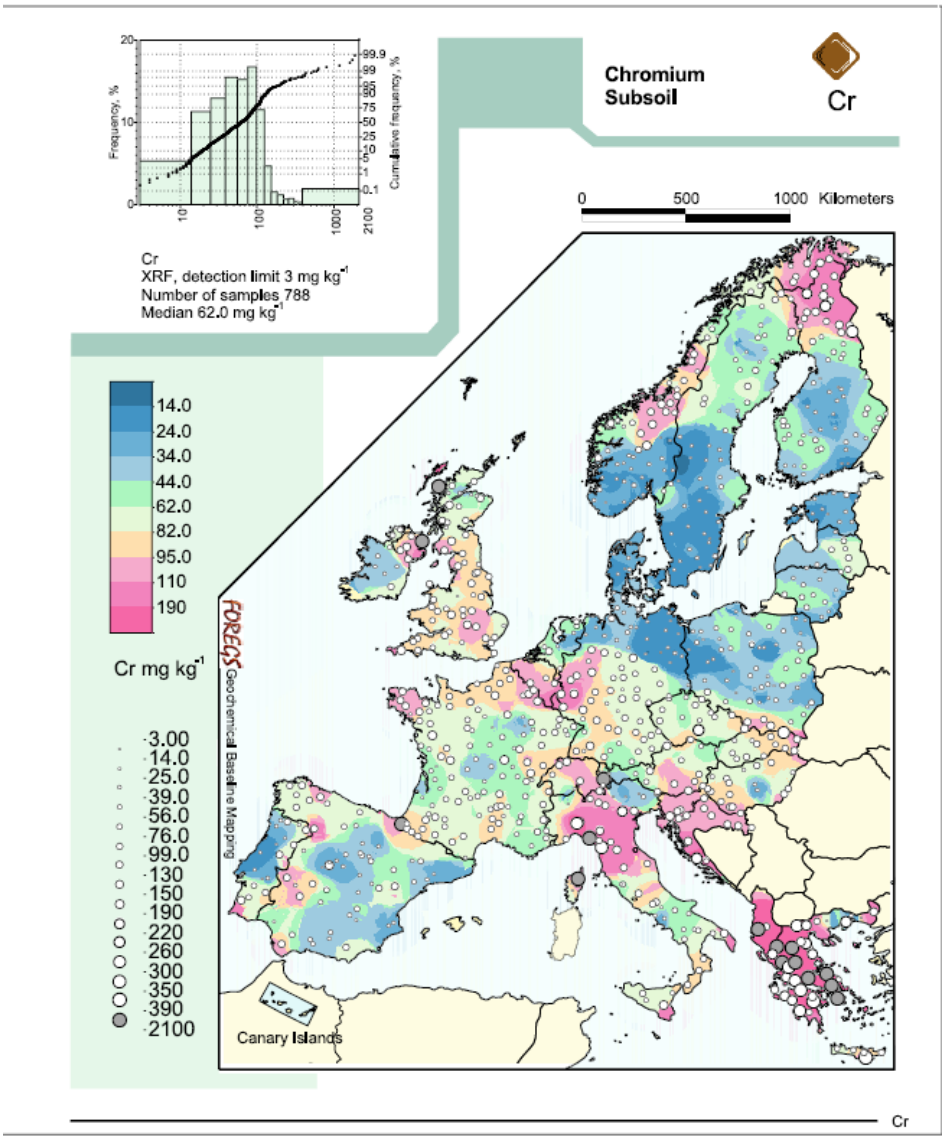
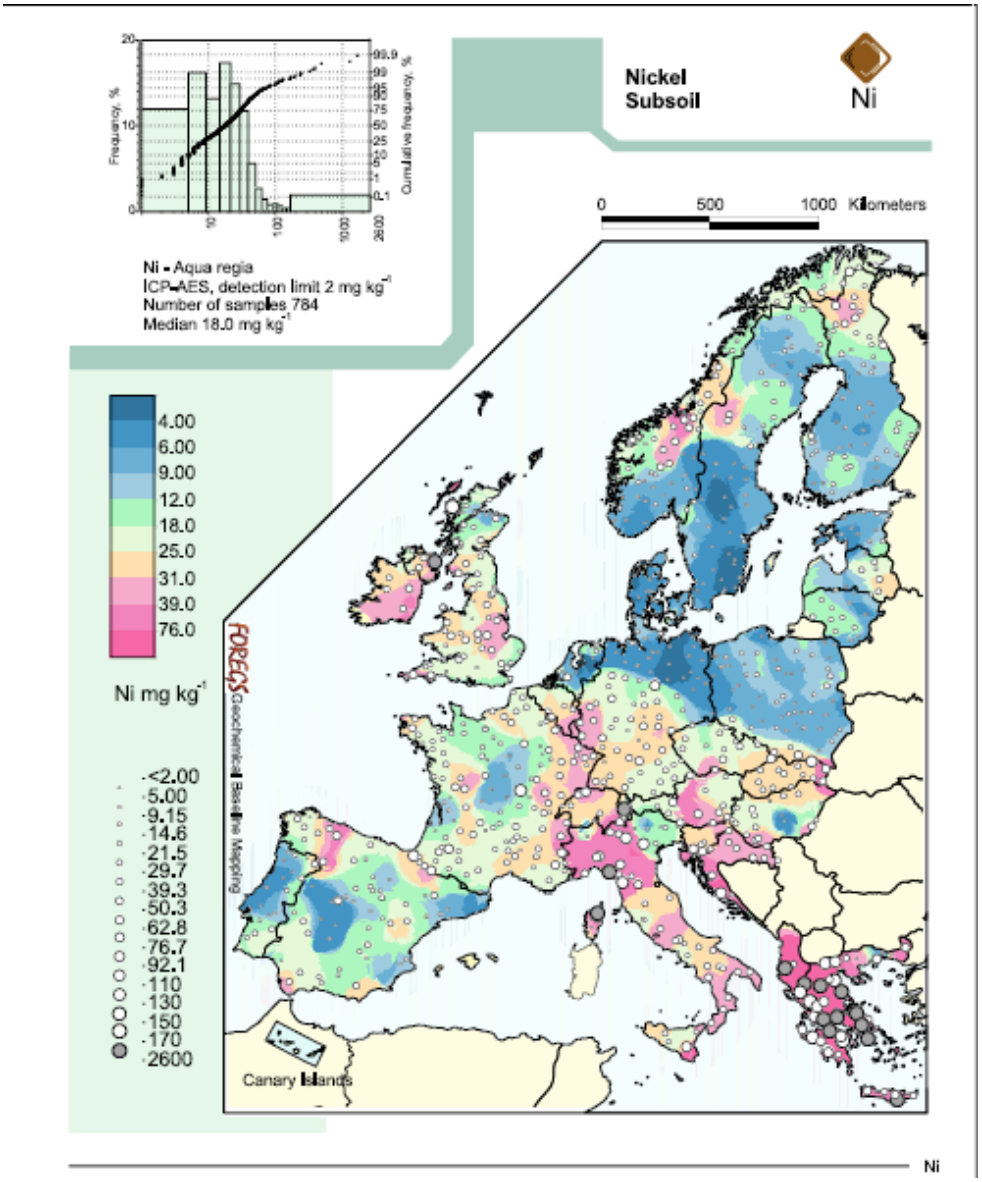


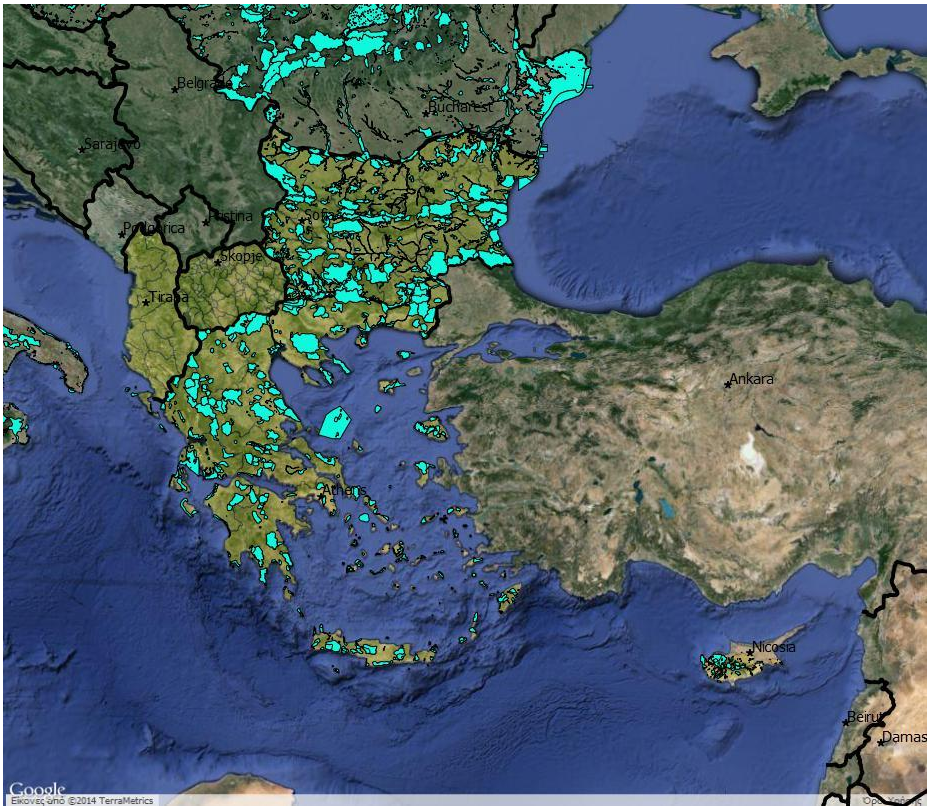
Figure 65. Soil contamination by heavy metals in Europe. Ni.



6.2.10 Protected Areas

BALKAN-MEDITERRANEAN 2014-2020 countries area Natura 2000 network sites are presented at the following picture.

Figure 66. Balkan Mediterranean 2014-2020 Area Natura 2000 network sites –



6.2.10.1 Bulgaria

Bulgaria has long - standing traditions on the domain of the protected areas. The commencement of the environmental activity started already in the beginning of last century. In 1934 the first People's park on the Balkan Peninsula has been declared - this is the present Vitosha Nature Park. At the end of 2008 the number of the protected areas is 950 with total area 581736 ha (5.2% of the state territory). The distribution of the protected areas by their number in different categories is the following: national parks - 3; nature parks - 11; reserves - 55; managed reserves - 35; protected sites – 501 and nature monuments - 345. The country conducts a policy for broadening the network of protected areas. Generally, this network will be broadened by declaration of protected areas in categories "protected sites" and "nature monument".

The dominant part of the protected areas is included into the NATURA 2000 network, which proofs their conservation significance and their effective contribution to the biodiversity protection.

In compliance with the agreements undertaken in the accession process to EU, Bulgaria has submitted to the EC a list of territories, which are supposed to become a part of the NATURA 2000 Ecological Network, in accordance with the requirements of the Habitat Directive 92/43/ EU and Bird Directive 79/409/EEC. The Bulgarian part of the NATURA 2000 European Ecological Network amounts to 33.89 % of the state territory and is one of the highest percentages in European Union.

6.2.10.2 Greece

Greece has an exceptionally rich biodiversity; an almost untouched natural environment characterises wide areas of the country. Greek policy documents (including the 2002 National Strategy for Sustainable Development) explicitly refer to the international and EU commitment of reducing the current rate of biodiversity loss. During the previous decade, a number of new protected areas were designated, including ten national parks; the list of Sites of Community Importance and Special Protection Areas was extended; the Natura 2000 network was designated to cover 21% of the land surface and 5.5% of the territorial waters. Greece improved and updated the legislative framework for nature conservation, moving from a strict protection approach to a more integrated and participatory management. Twenty-seven independent and multi-stakeholder Management Bodies were given management responsibilities over some 1.7 million hectares of protected areas. Information on the status of habitats and species is improving, for instance through the Biodiversity Clearing House Mechanism Website. The number of threatened species covered through protection projects considerably increased, with significant involvement of environmental NGOs and research institutes.

6.2.10.3 Cyprus

Cyprus has completed the catalogue of the protected areas of the Natura 2000 network. All major habitats and ecosystems are included in the protected area system, which covers 19 % of the area of the country. Cyprus is involved in LIFE projects for protected and non-protected areas. In addition, projects for conservation of species and ecosystems are currently under implementation.

Cyprus has designated 40 Sites of Community Interest under the Habitats Directive (SCIs – Natura 2000 Network) and 29 Special Protected Areas under the Birds Directive (SPAs – Natura 2000). Also in the island there are 10 National Parks, (15627 ha), 4 Nature Reserves (4788 ha) and 350 game reserves covering about 33% of the government controlled area of Cyprus.

6.2.10.4 Albania

Throughout recent years Albania has achieved progress and made a major investment in the future protection of unique natural and landscape assets. Pursuant to the main areas of work identified by the 2000 NBSAP, and also as a result of the National Programme of Work on Protected Areas (PoWPA) for the period 2006-2009, the protected area network has been extended. Since 1996 the surface area legally declared as protected areas in Albania has more than tripled from 108,475 ha to 378,748 ha, bringing the total proportion of protected areas in different management categories to 13.17 per cent in 2011. compared with only 5.7 per cent in 2002.

The positive trend is particularly visible for the legal designation of protected areas corresponding to IUCN category II (national parks), category IV (habitat/species management areas) and category V (protected landscapes/seascapes).

In 2011, national parks (i.e IUCN category II) cover an area more than seven times greater than in 2002, due to the territorial extension of existing, or designation of new, national parks, and merging and upgrading the legal protective status of protected areas in other management categories. Such new developments included the national parks Butrinti (2005, 8,591.2 ha), Mali i Dajtit (2006, 29,216.9 ha), Divjake-Karavasta (2007, 22,230.2 ha), Shebenik-Jabllanice (2008; 33,928.0 ha), Bredhi i Hotoves-Dangelli (2008, 34,361.1 ha) and Karaburun-Sazan (2010, 12,428.0 ha). As a result, the proportion of national parks in the surface area of the ecological network of Albania has more than triped (from 15.68 per cent in 2002 to 49.88 per cent in 2011). Recently proclaimed or extended managed nature reserves (i.e. IUCN category IV) include Liqeni i Shkodres (2005. 26,535.0 ha), part of the Ramsar site listed in 2005. Kune-Vain-Tale (2010, 4,393.2 ha) and Patok-Fushekuqe-Ishem (2010, 5,000.7 ha).

Since 2002, the surface area of protected landscape areas almost doubled, from 59,200 ha to 95,864 ha in 2011, which accounts for over 25 per cent of the current surface area of the country's ecological network. Protected landscapes (i.e. IUCN category V) designated or extended after 2002 include Vjose-Narte (2004, 19,738.0 ha), Lumi Buna-Velipoje (2005, 23,027.0 ha) - another part of the Ramsar site listed in 2005, and Mali me Gropa-Bize-Martanesh (2007, 25,266.4 ha).

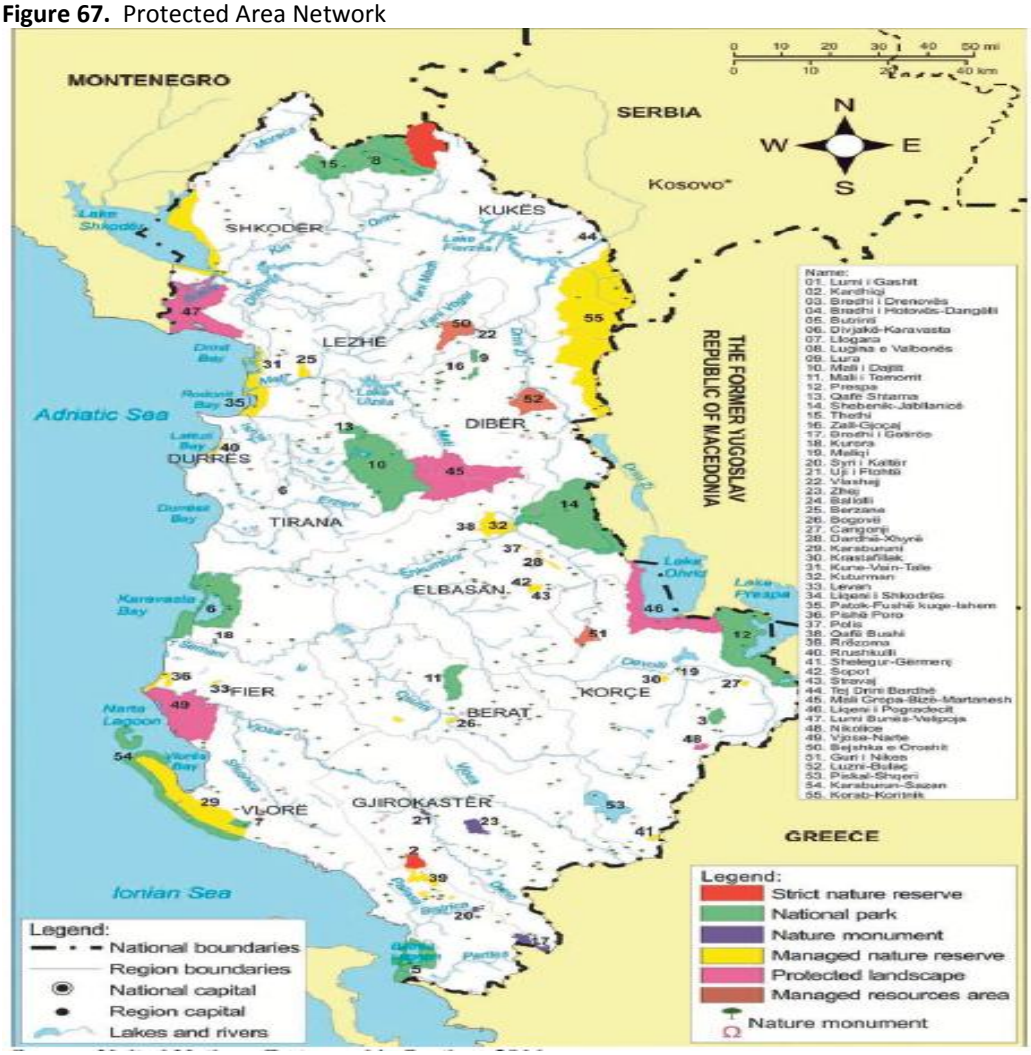
Table 18. Development of protected area (PA) network, 2002 and 2011

National PA category/ Κατηγορίας προστατευμένης περιοχής	**IUCN Category/ Κατηγορια**	**PA number/ Αριθμός ΠΠ**		**PA surface (ha)/ Έκταση Προστατευμένης Περιοχής**			**PA category share in the total surface of Pas(%)/ Ποσοστό συμμετοχής στο σύνολο των προστατευμένων περιοχών**	
		2002	2011	2002	2011	change	2002	2011
Strict natura* reserve / scientific reserve/ Αυστήρα περιοχή Natura	I	4	2	14500.0	4800.0	-9700.0	8.78	1.27
National park/ Εθνικό Πάρκο	II	12	15	25890.0	188945.4	163055.4	15.68	49.89
Nature monument/ Φυσικά μνημεία	III	300	750	4360.0	3470.0	-890.0	2.64	0.92
Managed nature reserve/natural park/ Φυσικά Πάρκα	IV	26	21	42960.0	67423.9	24463.9	26.01	17.80
Protected landscape/ Προστατευμένα Τοπία	V	3	5	59200.0	95864.4	36664.4	35.85	25.31
Protected area of managed resources /protected area with multiple use/ Προστατευμένες περιοχές με πολλαπλή χρήση	VI	4	4	18245.0	18245.0	..	11.05	4.82
Tota/ Σύνολο		349	797	165155.0	378748.7	213593.7	100	100
Share of PA in the territory of Albania/ Ποσοστό Συμμετοχής (%)				5.7	13.2	7.4		

Due to the budgetary constraints, progress in elaborating protected area management plans is slow and mostly dependent on the availability of external financial support while their effective implementation remains the future task for the majority of protected area administrations.

The 2002 Law on Protected Areas was significantly amended in 2008 by inclusion of the main provisions of the Habitats Directive, e.g. providing the legal basis for both the selection of protected areas to be recognized as special areas of conservation (SACs), and the assessment of habitats.

Figure 67. Protected Area Network



6.2.10.5 Former Yugoslav Republic of Macedonia

Protected areas

In 1948, Pelister National Park became the first protected area (PA) in the country. Since then, 82 more areas have been added to the system, expanding it to a current total of 222,204 ha (8.6per cent of the territory). Since the first EPR in 2002, the system has grown by 40,731 ha (1.5 per cent of the territory) through addition of new areas and expansion of existing areas. The new areas are in the following categories: 2 strict natural reserves (IUCN I), 44 natural monuments (IUCN III) and 1 multipurpose area (IUCN VI). The largest addition

occurred through the proclamation of the Jasen multipurpose area (27,950 ha). Slightly over 50 per cent of the land currently protected in the country is designated as national parks with the next largest category being natural monuments.

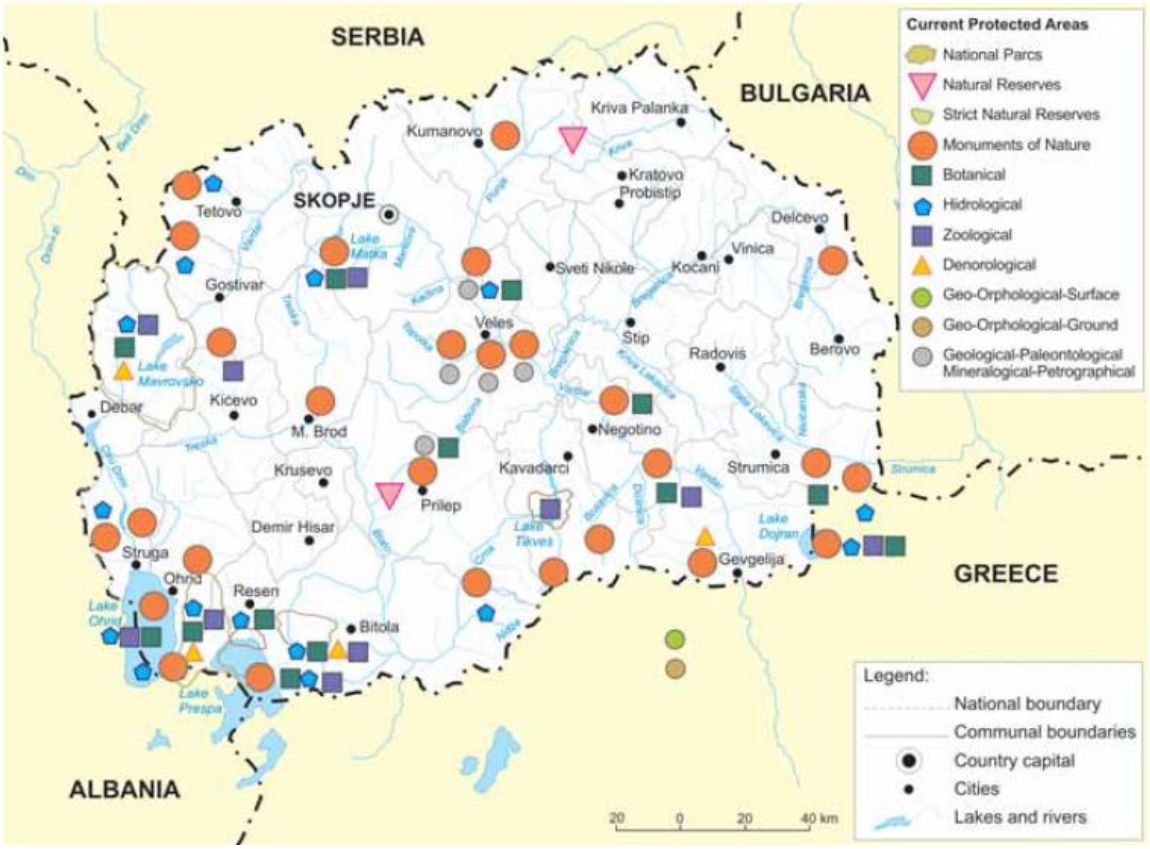
The system of protected areas is in a dynamic state of transition. In accordance with the Law on Nature Protection, several existing protected areas have been re-evaluated since 2002 and their boundaries may have been readjusted through tlus process, resulting in a commensurate change in the total area protected. Changes continue to occur in areas designated under the old categorization, areas designated under the new (IUCN) categorization, redesignated areas, areas in the process of redesignation, and new areas in The process of designation.

The former Yugoslav Republic of Macedonia's Natural Resources theme of its Spatial Plan and the Biodiversity Strategy and Action Plan set a target for a total of 265 areas and sites (298,566 ha) to be designated as Protected Areas by 2020, winch would increase the proportion of the territory designated as Protected Areas to 11.6 per cent.

By way of comparison- the international goal set by the Convention for Biological Diversity is 10 per cent. One of the proposed new Protected Areas has been the planned national park encompassing the Sharr/Sar Planina mountain range along the border with the Republic of Kosovo (in dispute with Serbia). However, that proposal was not approved, apparently due to lack of support by the local rural communities concerned about socio-economic impacts of the designation.

The country is making progress in developing a balanced, representative, and effective network of Protected Areas as per the UNDP/GEF/MoEPP project "Strengthening the Ecological, Institutional and Financial Sustainability of former Yugoslav Republic of Macedonia Protected Area System" and the Spatial Plan of former Yugoslav Republic of Macedonia.

Figure 68. Map of Protected Areas in former Yugoslav Republic of Macedonia



Internationally important areas

The Ohrid Natural and Cultural Heritage Site (38,000 ha) has been included in the World Heritage List. Two natural monuments, Markovi Kuvi and Cave Slatinski Izvor, are on the Tentative List of World Heritage Sites. Lake Prespa and Lake Dojran were designated Wetlands of International Importance (Ramsar sites) in 1995 and 2007, respectively, while Lake Olind has been proposed as a Ramsar site.

The Law on Nature Protection requires establishment of an ecological network that will be fully compatible with the Coherent European Ecological Network "NATURA 2000." One requirement for accession of the former Yugoslav Republic of Macedonia to the EU is the establishment of a network of Natura 2000 sites.

In accordance with the provisions of the Bern Convention and the Law on Nature Protection, four projects aimed at establishing the National Emerald Network in the country were completed between 2002 and 2008. This was an important enabling activity for the establishment of a coherent Natura 2000 network. Thirty-five sites have been identified in the National Emerald Network of areas of special importance for conservation. These amount to 752,223 ha, or 29 per cent of the territory and comprise the entire planned network.

Balkan Green Belt - Within the framework of IUCN activities concerning the initiative for the establishment of the Balkan Green Belt, the former Yugoslav Republic of Macedonia's contribution to the Green Belt was established in 2004 in its border regions with Bulgaria, Greece, and Albania. The goal of the initiative is to link the Protected Areas in Southeastern Europe to provide integrated protection of nature and biodiversity and promote cooperation among countries for the protection of natural heritage. The country's Green Belt includes 11 Protected Areas: a strict natural reserve (Ezerani); three national parks (Pelister, Mavrovo, and Galicica); three natural lakes which are proclaimed as natural monuments (Ohrid, Prespa, and Dojran); and four other natural monuments (Vevcani Springs, Smolare Waterfall, Kolesino Waterfall, and Majdan).

6.2.11 Cultural Heritage

6.2.11.1 Bulgaria

A number of ancient civilizations, including the Thracians, Ancient Greeks, Romans, Ostrogoths, Slavs, Varangians and especially Bulgarians (According to UNESCOs document), have left their mark on the culture, history and heritage of Bulgaria. Because of this Bulgarian nation has one of the richest folk heritage in the world. Thracian artifacts include numerous tombs and golden treasures, while ancient Bulgarians (According to UNESCOs document) have left traces of their heritage in music and early architecture. Thracian rituals such as the Zarezan, Kukeri and Martenitza are to this day kept alive in the modern Bulgarian culture.
There are nine UNESCO World Heritage Sites in Bulgaria. The first four properties were inscribed in the World Heritage List in 1979, and the last in 1985. Bulgaria currently has fourteen additional properties on the Tentative List

6.2.11.2 Greece

The culture of Greece has evolved over thousands of years, beginning in Mycenaean Greece, continuing most notably into Classical Greece, through the influence of the Roman Empire and its successor the Byzantine Empire. Other cultures and states such as the Persian Empire, Latin and Frankish states, the Ottoman Empire, the Venetian Republic, Genoese Republic, and British Empire have also left their influence on modern Greek culture.
In ancient times, Greece was the birthplace of Western culture. Modern democracies owe a debt to Greek beliefs in government by the people, trial by jury, and equality under the law. The ancient Greeks pioneered in many fields that rely on systematic thought, including biology, geometry, history, philosophy, and physics.

They introduced such important literary forms as epic and lyric poetry, history, tragedy, and comedy. In their pursuit of order and proportion, the Greeks created an ideal of beauty that strongly influenced Western art.
There are seventeen UNESCO World Heritage Sites in Greece. Greece currently has fifteen additional properties on the Tentative List.

6.2.11.3 Cyprus

The History and Culture of Cyprus is among the oldest in the world. The first signs of civilization traced in archaeological excavations and research date back 9,000 years to the 7th millennium BC. This rich cultural landscape involves hundreds of archaeological sites scattered throughout the island, representing various historical periods in the island's evolution.
The discovery of copper in Cyprus in the 3rd millennium BC brought wealth to the island and attracted trade from its trading neighbors. Yet, although geographically placed at the crossroads of three continents Europe, Asia and Africa and a meeting point of great world civilizations, Cyprus has developed and for centuries maintained, its own civilization. It remained a center of Greek culture with Hellenistic, Roman, Byzantine, French, Venetian, Ottoman and British influences.
According to the UNESCO World Heritage List there are three sites in Cyprus and twelve sites are in tentative list.

6.2.11.4 Albania

According to the tentative Unesco world heritage list only only one sight located in Albania. Butrint inhabited since prehistoric times. Butrint has been the site of a Greek colony, a Roman city and a bishopric. Following a period of prosperity under Byzantine administration, then a brief occupation by the Venetians, the city was abandoned in the late Middle Ages after marshes formed in the area. The present archaeological site is a repository of ruins representing each period in the city's development**.**

6.2.11.5 Former Yugoslav Republic of Macedonia

former Yugoslav Republic of Macedonia has a rich cultural heritage in art, architecture, poetry, and music. It has many ancient, protected religious sites. Poetry, cinema, and music festivals are held annually. former Yugoslav Republic of Macedonia music styles developed under the strong influence of Byzantine church music. former Yugoslav Republic of Macedonia has a significant number of preserved Byzantine fresco paintings, mainly from the period between the 11th and 16th centuries. There are several thousands square

metres of fresco painting preserved, the major part of which is in very good condition and represent masterworks of the former Yugoslav Republic of Macedonia School of ecclesiastical painting.

6.3 DESCRIPTION OF ANTHROPOGENIC ENVIRONMENT

6.3.1 Population – Demography

The Balkan Mediterranean 2014-2020 Programme area includes a population of about 24.1 million people (24,8% of the EU28 population). Greece and Bulgaria account for the 75.9% of the programme area population.

Demographic trends are very heterogeneous between and within the countries of the Programme area, depending on economic, social and cultural and spatial factors. Main challenges constitute the following:

the spatial concentration of positive or negative demographic development like migration, depopulation (rural versus urban areas),ageing population and migration

Regarding population growth at the national level, the EU members (except Bulgaria) in the programme area have experienced a modest increase in population in the last years mostly caused by immigration. Contrary developments have to be noted to former Yugoslav Republic of Macedonia, which have lost a significant part of the population due to emigration during last decade.

In general the demographic development in the EU member states within the programme area follows the European trend of an ageing population (European Social Statistics, 2013). Therefore the main problem in those countries is the ageing of the population with all the connected strong impact in the social and health services and in the labour market. On the other hand Albania seems to have a strong positive balance between birth and death rates offsetting emigration and keeping population on a growth path.

For some countries, migration is the main factor influencing the negative population development. A weak economic performance and lacking perspectives are the main motivation factors stimulating external migration. Notable are the emigrant outflows coming from Bulgaria and the former Yugoslav Republic of Macedonia. This emigration is directed mainly towards Western Europe (EU15) and North America.

6.3.2 Economic Performance

Strong national and regional disparities characterize the socio-economic performance of the programme area. The analysis of the regional GDP per capita performance reveals that the programme area is far from

being cohesive. The international economic crisis has put a pressure in the Balkan Mediterranean countries, especially on the countries that are EU-members. The GDP figures per country are shown in the following tables:

Table 19. GDP figures per BALKAN-MEDITERRANEAN 2014-2020 country (EU Member States)

EU Member States	GDP 2013 millions of euro	GDP (PPP) per capita 2013 euro	GDP (Nominal) per capita 2013 euro	GDP (PPP) per capita 2013 EU27 = 100
European Union	13,069,730	25,700	25,700	100%
Greece	182,054	19,500 (2012)	17,400 (2012)	75%
Bulgaria	39,940	12,000	5,500	47%
Cyprus	16,504	22,100	19,000	86%

Source: EUROSTAT

Table 20. GDP figures per BALKAN-MEDITERRANEAN 2014-2020 country (EU Candidates)

EU Candidates	GDP 2013 millions of euro	GDP (PPP) per capita 2013 euro	GDP (Nominal) per capita 2013 euro	GDP (PPP) per capita 2013 perc. of EU27
former Yugoslav Republic of Macedonia	7,454 (2012)	9,000 (2011)	3,600 (2011)	35%
Albania	8,975	7,800 (estimation)	2,803	30%

Source: EUROSTAT

This pressure shows a still important position of traditional economic sectors which are based on the activity of a high percentage of fragmented SMEs with often low added value (DG Enterprise and Industry). The most important point is that the share of the people employed in the SMEs on the total number of employees in the five counties is much higher than the average share in the EU27. These enterprises and the respective sectors will require modernization, partnership and diversification to better compete on national and international markets.

The service sector is the prominent economic sector of the whole Programme area despite the national disparities between the five participating countries. Referring to the other sectors, Albania still shows an important agricultural activity, while Bulgaria and the former Yugoslav Republic of Macedonia show an important secondary sector activity.

6.3.3 Employment

The international economic crisis has worsened the economic performance of the Balkan Mediterranean countries, leading to high unemployment rates. These rates are quite high in the three EU members, as well as in the former Yugoslav Republic of Macedonia. In Albania, the unemployment rate is moderately high, leading in any case to the need for the country to solve the problem of the joblessness.

The persons in employment by economic activity are as follows (2011 figures):

Table 21. Persons in employment by economic activity per BALKAN-MEDITERRANEAN 2014-2020 country

COUNTRY	AGRICULTURE (%)	INDUSTRY (%)	SERVICES (%)	SELF-EMPLOYMENT RATE (%)
EU27	4.6	25.4	70.0	14.4
Bulgaria	6.6	31.6	61.8	10.9
Cyprus	2.9	21.1	76.0	14.7
Greece	11.8	18,0	70.3	30.4
Albania	-	-	-	-
Former Yugoslav Republic of Macedonia	18.1	30.3	51.7	18.4

Source: European Social Statistics, 2013

The unemployment rate per country is as follows (2013):

Table 22. Unemployment rate per BALKAN-MEDITERRANEAN 2014-2020 country

COUNTRY	PERC. OF ACTIVE POPULATION
EU28	10.8
Albania	13.0 (2012)
Bulgaria	13.0
Cyprus	16.0
Former Yugoslav Republic of Macedonia	29.0
Greece	27,3

Source: EUROSTAT 2014, National Statistics

In any case, the youth unemployment is much higher in all countries (European Social Statistics, 2013). In addition, the following points should be noticed:

- The long term unemployment is much higher in the former Yugoslav Republic of Macedonia, but it is still a serious problem in all five countries.
- Besides Greece where the women unemployment rate is high, in all other cases the unemployment hits both men and women.
- In all cases, unemployment hits the people with the lower level of educational attainment.

6.3.4 Social Situation

In 2011, 16.9 % of the EU-27 population was assessed to be at risk of poverty. This share already conceals considerable variations across the EU Member States. In five countries, including Bulgaria and Greece one fifth or more of the population viewed as being at risk of poverty (European Social Statistics, 2013). The at-risk-of-poverty threshold is set at 60 % of the national median equivalised disposable income.

In Albania, as incomes and employment rates are low across the board, most people's average income hovers close to the poverty line. This leads to many people being vulnerable to the effects of downturns in the economy.

The differences in poverty rates are more notable when the population is classified according to activity status. The unemployed are a particularly vulnerable group: those in employment were far less likely to be at risk of poverty. The level of education also represents a relevant factor in terms of poverty. People with low educational attainment are at higher risk of poverty than those with high educational attainment. Moreover, children whose parents' highest level of education was low are at-risk-of-poverty, compared to those whose parents had high level of education.

High education attainment levels are close to the EU-28 average (28.4%) with Cyprus showing a record high of nearly 40% of the population aged between 25 and 64 years tertiary educated. Also in the two candidate countries of the programme, tertiary education is in permanent development: between 2001 and 2011 Albania has more than doubled the number of students attending tertiary education while the EU-27 increase over the same period was on average 2% per year.

6.3.5 Innovation

The number of Science and Technology graduates has increased in all the Balkan Mediterranean countries, becoming a sign of an increasing recognition of the importance of human capital as an engine of growth. Also this is definitely the basis for introducing innovative activities in these regions. In countries like Greece and Cyprus many young people do not graduate in their home country, but abroad.

In all Balkan Mediterranean countries the R&D expenditure is well below the EU average. The general picture shows, that these regions are lacking behind in R & D activities in comparison to other EU regions.

The investments in telecommunications and IT are linked to the e-society, which is emerging rapidly. The e-society can become instrumental for better social cohesion and future economic development within the Balkan Mediterranean space. However, the impact of ICT on business development is as well depending on the level of internet access of households which is in general lower than the average of the EU27.

6.3.6 Accessibility

In the Balkan Mediterranean area there is a lack of satisfactory accessibility from the coast to the internal zones and the traffic density in the main corridors and most urbanised areas cannot be solved only by developing road infrastructures. An integrated approach is required with the adaptation of existing transport means and with the development of multimodal/intermodal transport systems (road-rail-sea connections).

In general the Balkan Mediterranean regions can be characterized by the fact that the density of railway is much less than that of the Northern and Central European Countries. Furthermore the existence of high-speed rail networks is not yet completely efficient and in some cases totally inexistent. Maritime transport is extremely important for this area as already have been aforementioned.

The air transport system is not well developed between the main Balkan Mediterranean urban centres. In addition, the density of regional airports within the Balkan Mediterranean regions is not as close as the one of Northern and Central Europe, while air transportation of goods and passengers is expected to become ever more important.

Information and Communication Technologies are instrumental in generating accessibility and promoting territorial cohesion. Not only do these technologies facilitate the everyday communicative interactions, they also support the development and safe functioning of multimodal transport systems, as they also facilitate mass transportation.

In general the Balkan Mediterranean Programme regions have invested in ICT technologies over the last years, but have still not reached a level that come close the EU27 average. Moreover, in terms of using ICT technologies, most of the Balkan Mediterranean regions are lagging behind

6.3.7 Land Uses According to Corine Land Cover 2006 (CLC2006, European Environment Agency)

6.3.7.1 Bulgaria

According to Corine land cover 2006, the following table presents the total area and percentage of each land use class in Bulgaria.

Table 23. Corine 2006 Land Cover Classes in Bulgaria

	Strategic Environmental Impact Assessment Report of Balkan- Mediterranean 2014-2020 Programme			
Code	**Names**	**Ονομασία**	**Area (ha)**	**Percentage**

	Strategic Environmental Impact Assessment Report of Balkan- Mediterranean 2014-2020 Programme			
Code	**Names**	**Ονομασία**	**Area (ha)**	**Percentage**
111	Continuous urban fabric	Συνεχής αστική οικοδόμηση	863.6	0.01%
112	Discontinuous urban fabric	Διακεκομένη αστική οικοδόμηση	411964.4	3.66%
121	Industrial or commercial units	Βιομηχανικές ή εμπορικές ζώνες	80453.4	0.72%
122	Road and rail networks and associated land	Οδικά, σιδηδρομικά δίκτυα και γειτνιάζουσα γη	4419.8	0.04%
123	Sea ports	Λιμάνια	816.4	0.01%
124	Airports	Αεροδρόμια	4851.6	0.04%
131	Mineral extraction sites	Χώροι εξόρυξης ορυκτών	34677.1	0.31%
132	Dump	Χώροι απόρριψης απορριμάτων	2845.0	0.03%
133	Construction sites	Χώροι οικοδόμησης	862.0	0.01%
141	Green urban areas	Χώροι αστικού πρασίνου	4757.9	0.04%
142	Sport and leisure facilities	Αθλητικές Εγκαταστάσεις	11899.0	0.11%
211	Non-irrigated arable land	Μη αρδεύσιμη αρώσιμη γη	3899946.4	34.69%
213	Permanently irrigated land	Μόνιμα αρδευόμενη γη	14312.4	0.13%
221	Rice fields	Φυτείες ριζιού	145437.0	1.29%
222	Vineyards	Αμπελώνες	65069.2	0.58%
231	Fruit trees and berries plantations	Οπωροφόρα δέντρα και φυτείες με σαρκώδεις καρπούς	410084.0	3.65%
242	Olive groves	Ελαιώνες	204062.8	1.82%
243	Pastures	Λιβάδια	1021838.0	9.09%
311	Annual crops associated with permanent crops	Ετήσιες καλλιέργεις που συνδέονται με μόνιμες	2360819.0	21.00%
312	Complex cultivation patterns	Σύνθετα συστήματα καλλιεργειών	543044.3	4.83%
313	Land principally occupied by agriculture with significant areas of natural vegetation	Γη που καλύπτεται κυρίως από τη γεωργία με σημαντικές εκτάσεις φυσικής βλάστησης	645219.5	5.74%
321	Agro-forestries	Αγροτικές δασικές εκτάσεις	406735.8	3.62%
322	Broad leafed forest	Δάσος πλατυφύλλων	31753.1	0.28%
324	Coniferous forests	Δάσος κωνοφόρων	751310.9	6.68%
331	Mixed forest	Μικτό δάσος	2642.6	0.02%
332	Natural grassland	Φυσικοί βοσκότοποι	12558.4	0.11%

	Strategic Environmental Impact Assessment Report of Balkan- Mediterranean 2014-2020 Programme			
Code	**Names**	**Ονομασία**	**Area (ha)**	**Percentage**
333	Moors and heathlands	Θάμνοι και χερσότοποι	41420.3	0.37%
334	Sclerophyllous vegetation	Σκληροφυλλική βλάστηση	368.8	0.00%
411	Transitional woodland-scrub	Μεταβατικές δασώδεις θαμνώδεις εκτάσεις	9312.3	0.08%
412	Beaches, dunes, sand	Παραλίες	1264.6	0.01%
421	Bare rocks	Απογυμνωμένοι βράχοι	31.5	0.00%
422	Sparsely vegetated areas	Εκτάσεις με αραιή βλάστηση	790.7	0.01%
511	Burnt areas	Καμμένες Εκτάσεις	50824.7	0.45%
512	Glaciers and permanent snowfields	Μόνιμο χιόνι	6497.5	0.58%
521	Inland marshes	Βάλτοι στην ενδοχώρα	366.4	0.00%
523	Peat bogs	Τυρφώνες	-	-

6.3.7.2 Greece

According to CORINE land cover 2006, the following table presents the total area and percentage of each land use class in Greece.

Table 24. Corine 2006 Land Cover Classes in Greece

	Strategic Environmental Impact Assessment Report of Balkan- Mediterranean 2014-2020 Programme			
Code	**Names**	**Ονομασία**	**Area (ha)**	**Percentage (%)**
111	Continuous urban fabric	Συνεχής αστική οικοδόμηση	16761	0.126
112	Discontinuous urban fabric	Διακεκομένη αστική οικοδόμηση	164807	1.242
121	Industrial or commercial units	Βιομηχανικές ή εμπορικές ζώνες	35915	0.271
122	Road and rail networks and associated land	Οδικά, σιδηδρομικά δίκτυα και γειτνιάζουσα γη	9702	0.073
123	Sea ports	Λιμάνια	1500	0.011
124	Airports	Αεροδρόμια	9725	0.073
131	Mineral extraction sites	Χώροι εξόρυξης ορυκτών	27333	0.206
132	Dump	Χώροι απόρριψης απορριμάτων	538	0.004
133	Construction sites	Χώροι οικοδόμησης	12564	0.095
141	Green urban areas	Χώροι αστικού πρασίνου	1081	0.008
142	Sport and leisure facilities	Αθλητικές Εγκαταστάσεις	8066	0.061
211	Non-irrigated arable land	Μη αρδεύσιμη αρώσιμη γη	1536.174	11.579
212	Irrigated arable land	Μόνιμα αρδευόμενη γη	630262	4.751
213	Permanently irrigated land	Μόνιμα αρδευόμενη γη	28908	0.218
221	Rice fields	Φυτείες ριζιού	85633	0.645
222	Vineyards	Αμπελώνες	122040	0.920
223	Olive groves	Ελαιώνες	613178	4.622
231	Fruit trees and berries plantations	Οπωροφόρα δέντρα και φυτείες με σαρκώδεις καρπούς	70119	0.529
241	Annual crops associated with permanent crops	Ετήσιες καλλιέργεις που συνδέονται με μόνιμες	2341	0.018
242	Olive groves	Ελαιώνες	772414	5.822
243	Pastures	Λιβάδια	1428537	10.768
311	Annual crops associated with permanent crops	Ετήσιες καλλιέργεις που συνδέονται με μόνιμες	1276565	9.622

	Strategic Environmental Impact Assessment Report of Balkan- Mediterranean 2014-2020 Programme			
Code	**Names**	**Ονομασία**	**Area (ha)**	**Percentage (%)**
312	Complex cultivation patterns	Σύνθετα συστήματα καλλιεργειών	753708	5.681
313	Land principally occupied by agriculture with significant areas of natural vegetation	Γη που καλύπτεται κυρίως από τη γεωργία με σημαντικές εκτάσεις φυσικής βλάστησης	408777	3.081
321	Agro-forestries	Αγροτικές δασικές εκτάσεις	1.99261	9.040
322	Broad leafed forest	Δάσος πλατυφύλλων	53183	0.401
323	Schlerophyllous vegetation	Σκληροφυλλική βλάστηση	2322648	17.508
324	Coniferous forests	Δάσος κωνοφόρων	1239926	9.346
331	Mixed forest	Μικτό δάσος	30573	0.230
332	Natural grassland	Φυσικοί βοσκότοποι	16191	0.122
333	Moors and heathlands	Θάμνοι και χερσότοποι	188142	1.418
334	Sclerophyllous vegetation	Σκληροφυλλική βλάστηση	8426	0.064
411	Transitional woodland-scrub	Μεταβατικές δασώδεις θαμνώδεις εκτάσεις	24535	0.185
421	Bare rocks	Απογυμνωμένοι βράχοι	34098	0.257
422	Sparsely vegetated areas	Εκτάσεις με αραιή βλάστηση	5313	0.040
511	Burnt areas	Καμμένες Εκτάσεις	22282	0.168
512	Glaciers and permanent snowfields	Μόνιμο χιόνι	85934	0.648
521	Inland marshes	Βάλτοι στην ενδοχώρα	18951	0.143
522	Peat bogs	Τυρφώνες	409	0.003

6.3.7.3 Cyprus

According to the final report of CORINE 2000 land uses the table above shows the classes in Cyprus.

Table 25. Land Corine Cover 2000 classes in Cyprus

	Strategic Environmental Impact Assessment Report of Balkan Med 2014 2020 Programme			
Code	**Names**	**Ονομασία**	**Area (ha)**	**Percentage (%)**
111	Continuous urban fabric	Συνεχής αστική οικοδόμηση	563	0.057
112	Discontinuous urban fabric	Διακεκομένη αστική οικοδόμηση	43691	4.417
121	Industrial or commercial units	Βιομηχανικές ή εμπορικές ζώνες	12987	1.313
122	Road/Rail network	Οδικά, σιδηδρομικά δίκτυα και γειτνιάζουσα γη	209	0.021
123	Sea ports	Λιμάνια	347	0.035
124	Airports	Αεροδρόμια	2502	0.253
131	Mineral extraction sites	Χώροι εξόρυξης ορυκτών	2865	0.290
132	Dump sites	Χώροι απόρριψης απορριμάτων	286	0.029
133	Construction sites	Χώροι οικοδόμησης	1825	0.184
141	Green urban areas	Χώροι αστικού πρασίνου	1093	0.110
142	Sport and leisure facilities	Αθλητικές Εγκαταστάσεις	3863	0.390
211	Non-irrigated arable land	Μη αρδεύσιμη αρώσιμη γη	244474	24.713
212	Permanently unseated land	Μόνιμα αρδευόμενη γη	19078	1.928
221	Vineyards	Αμπελώνες	13998	1.415
222	Fruit trees and berries plantations	Οπωροφόρα δέντρα και φυτείες με σαρκώδεις καρπούς	14749	1.491
223	Olive groves	Ελαιώνες	6988	0.706
231	Pastures	Λιβάδια	871	0.088
241	Annual crops associated with permanent crops	Ετήσιες καλλιέργειες που συνδέονται με μόνιμες	33165	3.352
242	Complex cultivation patterns	Σύνθετα συστήματα καλλιεργειών	70586	7.135
243	Land principally occupied by agriculture with areas of natural vegetation	Γη που καλύπτεται κυρίως από τη γεωργία με σημαντικές εκτάσεις φυσικής βλάστησης	39143	3.957
311	Broad leaved forest	Δάσος πλατυφύλλων	704	0.071

312	Coniferous forest	Δάσος κωνοφόρων	154616	15.629
313	Mixed forest	Μικτό δάσος	357	0.036
321	Natural grassland	Φυσικοί βοσκότοποι	32264	3.261
323	Sclerophyllous vegetation	Σκληροφυλλική βλάστηση	159825	16.156
324	Transitional woodland shrub	Μεταβατικές δασώδεις θαμνώδεις εκτάσεις	27827	2.813
331	Beaches, dunes, sand	Παραλίες	5265	0.532
332	Bare rocks	Απογυμνωμένοι βράχοι	2941	0.297
333	Sparse vegetation	Εκτάσεις με αραιή βλάστηση	12410	1.254
334	Burnt areas	Καμμένες Εκτάσεις	11650	1.178
421	Salt marshes	Μόνιμο χιόνι	1956	0.198
422	Salines	Βάλτοι στην ενδοχώρα	1709	0.173
512	Water bodies	Τυρφώνες	52367	5.294
521	Coastal lagoons	Παράκτιες Λιμνοθάλασσες	12093	1.222

6.3.7.4 Albania

According to CORINE land cover 2006, the following table presents the total area and percentage of each land use class in Albania.

Table 26. CORINE Land Cover classes 2006 in Albania

	Strategic Environmental Impact Assessment Report of Balkan Med 2014 2020 Programme			
Code/ Κωδικός	**Name**	**Ονομασία**	**Area (ha)**	**Percentage (%)**
111	Continuous urban fabric	Συνεχής αστική οικοδόμηση	288	0.009
112	Discontinuous urban fabric	Διακεκομένη αστική οικοδόμηση	70291	2.143
121	Industrial or commercial units	Βιομηχανικές ή εμπορικές ζώνες	3118	0.095
123	Sea ports	Λιμάνια	218	0.007
124	Airports	Αεροδρόμια	1085	0.033
131	Mineral extraction sites	Χώροι εξόρυξης ορυκτών	1202	0.037
132	Dump sites	Χώροι απόρριψης απορριμάτων	35	0.001
141	Green urban areas	Χώροι αστικού πρασίνου	214	0.007
142	Sport and leisure facilities	Αθλητικές Εγκαταστάσεις	281	0.009
211	Non-irrigated arable land	Μη αρδεύσιμη αρώσιμη γη	114422	3.488
212	Permanently unseated land	Μόνιμα αρδευόμενη γη	630	0.019
221	Vineyards	Αμπελώνες	5268	0.161
222	Fruit trees and berries plantations	Οπωροφόρα δέντρα και φυτείες με σαρκώδεις καρπούς	13002	0.396

223	Olive groves	Ελαιώνες	39585	1.207
231	Pastures	Λιβάδια	43049	1,312
242	Complex cultivation patterns	Ετήσιες καλλιέργειες που συνδέονται με μόνιμες	275570	8.401
243	Land principally occupied by agriculture with areas of natural vegetation	η που καλύπτεται κυρίως από τη γεωργία με σημαντικές εκτάσεις φυσικής βλάστησης	306450	9.342
311	Broad leaved forest	Δάσος πλατυφύλλων	643334	19.627
312	Coniferous forest	Δάσος κωνοφόρων	93078	2.837
313	Mixed forest	Μικτό δάσος	41858	1,276
321	Natural grassland	Φυσικοί βοσκότοποι	305709	9.319
322	Moors and heath land	Θάμνοι και χερσότοποι	18668	0.569
323	Sclerophvllous vesetation	Σκληροφυλλική βλάστηση	324219	9.884
324	Transitional woodland shrub	Μεταβατικές δασώδεις θαμνώδεις εκτάσεις	373568	11.383
331	Beaches, dunes, sand	Παραλίες	24250	0.739
332	Bare rocks	Απογυμνωμένοι βράχοι	6726	0.205
333	Sparse vegetation		148748	4.534
411	Inland marshes	Χερσαία έλη	4556	0.139
421	Salt marshes		4659	0.142
422	Salines		1709	0.052
511	Water courses	Υδατορεύματα	5668	0.173
512	Water bodies	Συλλογή υδάτων	52367	1.596
521	Coastal lagoons	Παράκτιες Λιμνοθάλασσες	12093	0.369
522	Estuaries	Εκβολές Ποταμών	54	0.002
523	Oceans	Ωκεανοί	343399	10.484

6.3.7.5 Former Yugoslav Republic of Macedonia

According to CORINE land cover 2006 the following table presents the total area and percentage of each land use class in Former Yugoslav Republic of Macedonia.

Table 27.CORINE Land Cover 2006 classes in the Former Yugoslav Republic of Macedonia

	Strategic Environmental Impact Assessment Report of Balkan Med 2014 2020 Programme			
Code/ Κωδικός	**Name**	**Ονομασία**	**Area/Εκταση(ha)**	**Percentage/ Ποσοστό**
111	Συνεχής αστική οικοδόμηση	Continuous urban Fabric	109	0.004
112	Διακεκομένη αστική οικοδόμηση	Discontinuous urban Fabric	32135	1.242
121	Βιομηχανικές ή εμπορικές ζώνες	Industry, Commercial Units	3842	0.148
122	Οδικά, σιδηδρομικά δίκτυα και	Road/rail network	108	0.004

	γειτνιάζουσα γη			
124	Αεροδρόμια	Airports	388	0.015
131	Χώροι εξόρυξης ορυκτών	Mineral extraction sites	2834	0.110
132	Χώροι απόρριψης απορριμάτων	Dump sites	1118	0.043
133	Χώροι οικοδόμησης	Construction sites	207	0.008
211	Μη αρδεύσιμη αρώσιμη γη	Non irrigated arable land	255252	9.864
212	Μόνιμα αρδευόμενη γη	Irrigated arable land	25900	1.001
221	Αμπελώνες	Vineyards	270698	1.070
222	Οπωροφόρα δέντρα και φυτείες με σαρκώδεις καρπούς	Fruit trees and berry plantations	2282	0.088
231	Λιβάδια	Pastures	204016	7.884
242	Σύνθετα συστήματα καλλιεργειών	Complex cultivation patterns	230730	8.916
243	Γη που καλύπτεται κυρίως από τη γεωργία με σημαντικές εκτάσεις φυσικής βλάστησης	Land occupied by agriculture with significant natural areas	187874	7.260
311	Δάσος πλατυφύλλων	Broad-leaved forest	7480365	28.919
312	Δάσος κωνοφόρων	Coniferous forest	48000	1.855
313	Μικτό δάσος	Mixed forest	51352	1.984
321	Φυσικοί βοσκότοποι	Natural grassland	197393	7.628
322	Θάμνοι και χερσότοποι	Moors / heathland	14794	0.572
323	Σκληροφυλλική βλάστηση	Schlerophyllous vegetation	30086	1.163
324	Μεταβατικές δασώδεις θαμνώδεις εκτάσεις	Trans. woodland-shrub	449413	17.367
332	Απογυμνωμένοι βράχοι	Bare rocks	419	0.016
333	Εκτάσεις με αραιή βλάστηση	Sparse vegetation	8453	0.327
411	Βάλτοι στην ενδοχώρα	Inland marshes	2015	0.078
511	Ροές υδάτων	Water courses	850	0.033
512	Συλλογές υδάτων	Water bodies	55594	2.148

7. ENVIRONMENTAL IMPACT ASSESSMENT

7.1 ASSESSMENT METHODOLOGY OF THE PROGRAMME'S POTENTIAL ENVIRONMENTAL IMPACTS

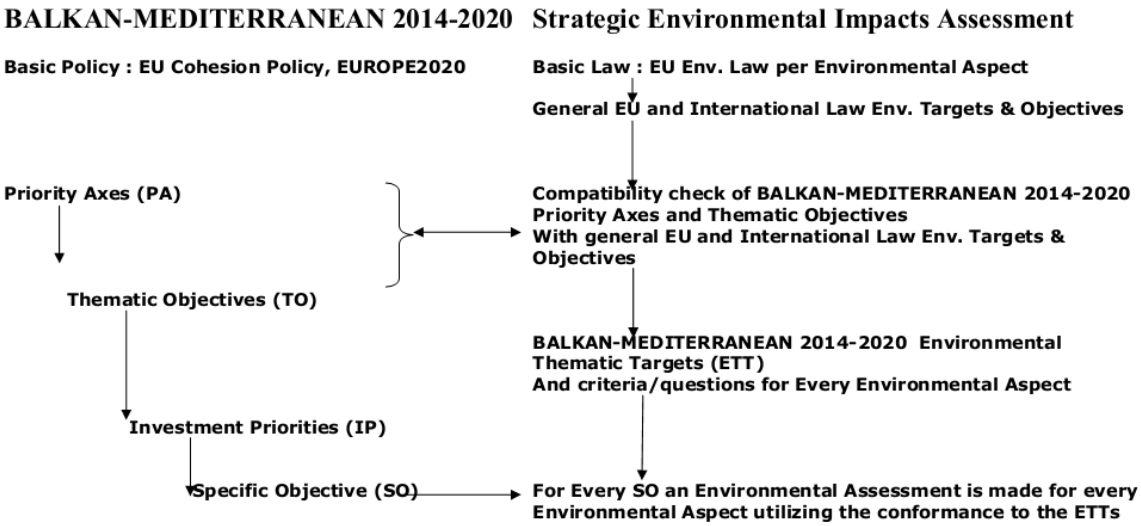
In this chapter the potential environmental impacts from the "BALKAN- MEDITERRANEAN" implementation are identified and assessed. The objective of this chapter is the methodology for qualitative, quantitative territorial and time determination of the Programme's implementation potential impacts. In this framework all the primary, secondary, cumulative, synergistic, short- middle- long term, permanent and temporary, positive and negative environmental impacts to the various environmental aspects of the cooperation area's environment, are identified and assessed.

The following were analyzed and developed in chaprter 3, in order to assess the potential environmental impacts of the Programme.

- Environmental Aspects/Isssues relevant to the programme have been developed based on Directive demands.
- a Compatibility check of BALKAN-MEDITERRANEAN 2014-2020 Priority Axes and Thematic Objectives with general EU and International Law Environmental Targets & Objectives per Environmental Aspect.
- A BALKAN-MEDITERRANEAN 2014-2020 Environmental Thematic Targets (ETT) And criteria/questions for Every Environmental Aspect

For every Specific Objective of BALKAN-MEDITERRANEAN 2014-2020 Priority Axes, and Thematic Objectives the questions related to each ETT of the Programmes are evaluated. These questions can be found in the table, which is provided in chapter 3. Based on these questions the environmental thematic targets, which the implementation of each Specific Objective might have an impact upon, are identified. the above mentioned methodology is shown at the following figure.

Figure 69. Evaluation of potential environmental impacts methodology.



The varieties of these potential environmnetal impacts are the following:

Positive impact: when the impact of the Specific Objective activities to the environmental target is directly positive. **Symbolism +**

Indirect positive impact: when the impact of the Specific Objective activities to the environmental target is indirectly positive. **Symbolism (+)**

Neutral impact: when the impact of the Specific Objective activities to the environmental target is neutral. **Symbolism 0**

Indirect negative impact: when the impact of the Specific Objective activities to the environmental target is indirectly negative. **Symbolism (-)**

Negative impact: when the impact of the Specific Objective activities to the environmental target is directly negative. **Symbolism -**

Within the framework of the Programme a number activities will be implemented, the Programme does not fully designate these activities but just describe them. Thus the evaluation of the environmental impacts which will occur by the Programme's implementation is rather qualitative than quantitative.

The potential environmental impacts of each Specific Objective are identified and evaluated for the aforementioned environmental aspects. There are comments for the identified impacts regarding each environmental aspect separately. Completing the assessment/evaluation of the potential environmental

impacts of each measure for the environmental targets, there is an analysis of the significant impacts which will occur, and there are also other proposals for the mitigation of the significant negative impacts and the enhancement of the positive impacts.

7.2 ASSESSMENT AND EVALUATION OF THE POTENTIAL IMPACTS

7.2.1 Priority Axis 1: "ENTREPRENEURSHIP"

The analysis of the assessment of the potential environmental impacts of the implementation of the Priority Axis 1 "Entrepreneurship" to the specific environmental targets per specific TO, IP and SO, is presented at the following table

Table 28. Assessment of the impacts of Priority Axis 1 "Entrepreneurship and Innovation" to the specific environmental targets.

PRIORITY AXIS 1: ENTREPRENEURSHIP AND INNOVATION							
Thematic Objective 3: Enhancing the competitiveness of SMEs'							
Selected Investment Priority: **IP3.a.:** Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators.				**Specific Objective:** **SO1.1:** Promote entrepreneurship and business creation on the basis on new ideas, innovation and new types of business models.			
Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets							
General –sustainable Development Issues	+	**Water Issues**	0	**Solid Wastes Issues**	0	**Soil Issues**	0
Air Quality Issues	0	**Climate Change and Energy Issues**	0	**Public Health Issues**	0	**Biodiversity-Fauna-Flora Issues**	0
Cultural Heritage Issues	0	**Landscape Issues**	0	**Population-Asset Management**	0	**Sea Pollution Issues**	0
Expected Result by the SO1.1. The results sought will directly contribute to the establishment of favourable and competitive business environment as a prerequisite for sustainable development. The main result of the planned support activities is to enable local economic operators to contribute more to the national, transnational and EU GDP and create new and better jobs. The results will build on existing potential of the region and within the EU policies framework will help participating countries to implement working solutions to support new business models and encourage innovations.							
Comments on Potential Impacts Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO **are not expected to have any potential negative environmental impact**. The TO3- IP3.a -SO1.1 sets goals that do not include objectives that could harm or influence the environmental							

status. Taking into consideration that these actions don't include large scale construction works, which may have been negative and possibly non reversible environmental impacts, the before mentioned SO1.1. isn't expected to have negative impacts to the biotic and abiotic environment of the selected site. This SO is expected to enhance business competitiveness, something that is very important for the entrepreneurship development and business openings to European markets. Important role to this enhancement is the geographical position of the region. *Therefore implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are expected to have direct positive impact related to sustainable development Issues.*

Selected Investment Priority:	**Specific Objective:**
IP3.d.: Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes	**SO1.2:** Facilitate innovation in business models and allow a maximum number of SMEs to innovate and adjust their business models to the changing socioeconomic and policy/regulatory circumstances.

Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets

General –sustainable Development Issues	+	**Water Issues**	0	**Solid Wastes Issues**	0	**Soil Issues**	0
Air Quality Issues	0	**Climate Change and Energy Issues**	0	**Public Health Issues**	0	**Biodiversity-Fauna-Flora Issues**	0
Cultural Heritage Issues	0	**Landscape Issues**	0	**Population-Asset Management**	0	**Sea Pollution Issues**	0

Expected Result by the SO1.2.

Expected results will be to:

- advance existing knowledge about business model innovation and create common understanding on business model with a focus on internationalisation;
- strategic re-orientation of cluster policies;
- foster a business friendly environment for growth and jobs;
- increase the attractiveness of the region for innovators;

Comments on Potential Impacts

Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO **are not expected to have any potential negative environmental impact.**

The TO3-IP3.d- SO1.2 sets goals that do not include objectives that could harm or influence the environmental status. Taking into consideration that these actions don't include large scale construction works, which may have been negative and possibly non reversible environmental impacts, the before mentioned SO1.2. isn't expected to have negative impacts to the biotic and abiotic environment of the selected site. This SO is expected to enhance business competitiveness through innovation, something that is very important for the entrepreneurship development and business openings to European markets. Important role to this enhancement is the geographical position of the region. *Therefore implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are expected to have direct positive impact related to sustainable Development Issues*

Thematic Objective 10: Investing in education, training and vocational training for skills and lifelong learning by developing education and training infrastructure

<table>
<tr><td colspan="8"></td></tr>
<tr><td colspan="4">Selected Investment Priority:
Developing and implementing joint education and training systems</td><td colspan="4">Specific Objectives:
SO1.3: Support entrepreneurial learning and knowledge transfer for more competitive SMEs.</td></tr>
<tr><td colspan="8">Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets</td></tr>
<tr><td>General –sustainable Development Issues</td><td>+</td><td>Water Issues</td><td>0</td><td>Solid Wastes Issues</td><td>0</td><td>Soil Issues</td><td>0</td></tr>
<tr><td>Air Quality Issues</td><td>0</td><td>Climate Change and Energy Issues</td><td>0</td><td>Public Health Issues</td><td>0</td><td>Biodiversity-Fauna-Flora Issues</td><td>0</td></tr>
<tr><td>Cultural Heritage Issues</td><td>0</td><td>Landscape Issues</td><td>0</td><td>Population-Asset Management</td><td>0</td><td>Sea Pollution Issues</td><td>0</td></tr>
<tr><td colspan="8">Expected Result by the SO1.3.
Expected results will be to:
➢ Establish efficient links between business and vocational training;
➢ Build the necessary skills that will enable SMEs to benefit from knowledge and technology transfer and become more competitive;
➢ Develop joint mechanisms that will allow exchange and transfer of knowledge between regions and countries in the Balkan-Mediterranean space.
➢ Reduce the brain – drain phenomena.

The results sought will directly contribute to the establishment of favourable and competitive business environment as a prerequisite for sustainable development. The main result of the SO is to provide the necessary education and training that will improve SMEs competitiveness and contribute to the national, transnational and EU GDP and create new and better jobs.</td></tr>
<tr><td colspan="8">Comments on Potential Impacts
Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SOs are not expected to have any potential negative environmental impact.
TO10-SO1.3 sets goals that do not include objectives that could harm or influence the environmental status. Taking into consideration that these actions don't include large scale construction works, which may have been negative and possibly non reversible environmental impacts, the before mentioned SO1.3 is not expected to have negative impacts to the biotic and abiotic environment of the selected site. This SO is expected to enhance business knowledge transfer and provide revevant skills to entrepreneurs, something that is very important for the entrepreneurship development and business openings to European markets. Important role to this enhancement is the geographical position of the region. Therefore implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SOs are expected to have direct positive impact related to sustainable Development Issues</td></tr>
</table>

7.2.2 Priority Axis 2: "Environment"

The analysis of the assessment of the potential environmental impacts of the implementation of the Priority Axis 2 "Environment" to the specific environmental targets per specific TO, IP and SO, is presented at the following table

Table 29. Assessment of the impacts of Priority Axis 2 "Environment" to the specific environmental targets.

<table>
<tr><td colspan="4">PRIORITY AXIS 2: ENVIRONMENT</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="4">Thematic Objective 6: Preserving and protecting the environment and promoting resource efficiency</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2">Selected Investment Priority:
IP6.C.: Conserving, protecting, promoting and developing natural and cultural heritage.</td><td colspan="2">Specific Objective:
SO2.1: Maintain biodiversity and natural ecosystems by strengthening networking and management of protected areas, including Natura 2000.</td></tr>
<tr><td colspan="4">Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets</td></tr>
<tr><td>General –sustainable Development Issues +</td><td>Water Issues +</td><td>Solid Wastes Issues +</td><td>Soil Issues +</td></tr>
<tr><td>Air Quality Issues +</td><td>Climate Change and Energy Issues +</td><td>Public Health Issues +</td><td>Biodiversity-Fauna-Flora Issues +</td></tr>
<tr><td>Cultural Heritage Issues +</td><td>Landscape Issues +</td><td>Population-Asset Management +</td><td>Sea Pollution Issues +</td></tr>
<tr><td colspan="4">Expected Result by the SO 2.1
Expected results will be to:
➢ Enhance the level of sustainable use of natural and cultural heritage. The main change sought is an improvement of strategies, development plans, policies and planning tools together with a better cooperation between stakeholders for a more efficient valorisation of natural resources and cultural heritage.
➢ Protect, conserve and enhance natural capital, and at the same time contribute to the environment action programme to 2020 of the EU.
➢ Improved growth patterns on resources' use and efficiency, generated by the ecosystem approach implemented to halt biodiversity losses.
➢ Ecosystems restoration and green infrastructure development have important socio-economic benefits including for public health.
➢ Management & monitoring of designated areas generates sustainable growth and sustainable employment.
➢ Contribute to implement the Natura 2000 network and respective legislation, as it is behind schedule in all participating EU member states.
➢ Participating IPA countries can benefit from both, good and bad conservation attempts experienced by participating EU member states.
.</td></tr>
<tr><td colspan="4">Comments on Potential Impacts
Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are not expected to have any potential negative environmental impact. On the contrary the rational of this PA, IP and SO are promoting environmental protection in every aspect
Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are expected to have direct positive impact related to sustainable Development Issues</td></tr>
<tr><td colspan="4"></td></tr>
</table>

Selected Investment Priority: **IP6.f.:** Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution.	**Specific Objective:** **SO2.2:** : Promote cooperation and networking aiming to introduce innovative technologies for efficient management of the waste sector, the soil and the water sector including adaptation to the Water Framework Directive (EC/60/2000)

Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets

General –sustainable Development Issues +	**Water Issues** +	**Solid Wastes Issues** +	**Soil Issues** +
Air Quality Issues +	**Climate Change and Energy Issues** +	**Public Health Issues** +	**Biodiversity-Fauna-Flora Issues** +
Cultural Heritage Issues +	**Landscape Issues** +	**Population-Asset Management** +	**Sea Pollution Issues** +

Expected Result by the SO 2.2

Resource efficiency is a prominent topic in the current EU strategies (EU2020, Waste Directive, Water Framework Directive, etc.).

EU environmental norms are sparsely implemented or not implemented at all, if subsequent regulatory framework simply missing. Water and waste quality issues together with degraded areas' rehabilitation / regeneration are of key importance to meet EU corresponding standards. The integrated approach for sustainable growth can mitigated the land – sea environmental pressures suffered throughout coastlines of the programme areas. Coastal zones' management coupled with accessibility can provide a promising testing bed for transnational cooperation potential in order to alleviate joint pressure from overall marine and maritime activities both, in land and sea.

The programme area holds significant potential for efficient and sustainable use of natural resources and for innovation and research activities in particular to enhance, implement and disseminate technological innovation in the fields of resource efficiency management, such as waste sector, the water sector and the soil and air pollution as well as energy efficiency. Fostering implementation of the sectorial legislation, such as Water Framework Directive & the Birds and Habitats directives, increasing the level of implementation of innovative technologies in the area, share best practices and transfer of knowledge for innovative management of environment and development of joint strategies for recourse efficiency will be supported by implementing this investment priority.

Transnational cooperation contributes to more efficient and better coordinated innovation activities, both in terms of research and implementation and also contributes to environmental awareness raising among political stakeholders and the general public by establishing knowledge platforms, capacity-building for local and regional administration and promoting best practice.
Accordingly, the main result pursued by this Specific Objective is to increase the level of use of innovative technologies regarding resource efficiency management.

Comments on Potential Impacts

Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO **are not expected to have any potential negative environmental impact**. On the contrary the rational of this PA, IP and SO are promoting environmental protection in every aspect
Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are expected to have direct positive impact related to sustainable Development Issues

<table>
<tr><td colspan="4">Thematic Objective 11: Enhancing institutional capacity of public authorities and stakeholders and efficient public administration through actions to strengthen the institutional capacity and the efficiency of public administrations and public services related to the implementation of the ERDF, and in support of actions under the ESF to strengthen the institutional capacity and the efficiency of public administration</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2"></td><td colspan="2">Specific Objective:
SO2.3: Develop skills for better environmental management and increase governance capacities.</td></tr>
<tr><td colspan="4">Assessments of the Impacts of Thematic Objectives to Specific Environmental Targets</td></tr>
<tr><td>General –sustainable Development Issues +</td><td>Water Issues (+)</td><td>Solid Wastes Issues (+)</td><td>Soil Issues (+)</td></tr>
<tr><td>Air Quality Issues (+))</td><td>Climate Change and Energy Issues (+)</td><td>Public Health Issues (+)</td><td>Biodiversity-Fauna-FloraIssues (+)</td></tr>
<tr><td>Cultural Heritage Issues (+)</td><td>Landscape Issues (+)</td><td>Population-Asset Management (+)</td><td>Sea Pollution Issues (+)</td></tr>
<tr><td colspan="4">Expected Result by the SO 2.3
The inefficient use of resources, the unsustainable pressure on the environment, and climate change, pose challenges to long-term economic growth.

The EU green growth model outlines a structural economic change which is mainly driven by scarcity of resources, technological change and innovation, new markets, and changes in industrial and consumer demand patterns. The Europe 2020 Strategy identifies the transition towards a green, low carbon, energy and resource-efficient economy as essential to achieve smart, sustainable and inclusive growth. A gradual shift towards an energy and resource-efficient circular economy will increase competitiveness and boost economic growth, while creating more and better jobs. Saving, re-using and recycling materials will support the future competitiveness of successful companies. The transition will bring about fundamental transformations across the entire economy and across a wide range of sectors.

The public sector in particular is necessary to better anticipate and manage adjustments and challenges towards transition to a greener economy. Dealing with sustainable resources' management and monitoring EU environmental targets require skills aligned with the latest scientific knowledge. Learn how to monitor EU environmental targets and developing common management techniques is important in order to reinforce peer review and best practice sharing.

Transnational cooperation can offer a suitable exchange and knowledge platform for training and capacity building of public authorities and stakeholders to strengthen the institutional capacity and improve delivery on legislation and governance. Furthermore, public awareness and education provide knowledge on how national and local administrations will give effect to the EU regulatory commitments.
Accordingly, the main result pursued by this Specific Objective is to increase the governance capacity and corresponding delivery regarding environmental legislation.</td></tr>
<tr><td colspan="4">Comments on Potential Impacts
Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are not expected to have any potential negative environmental impact. On the contrary the rational of this PA, IP and SO are promoting indirectly environmental protection in every aspect
Implementation of programme BALKAN-MEDITERREAN above mentioned specific IP and SO are expected to have direct positive impact related to sustainable Development Issues</td></tr>
</table>

7.2.3 Priority Axis 3 " Technical Assistance"

Priority Axis 3 "Technical Assistance" is a tool for the enhancement of the programme management and is not expected to have a negative impact on the environment. Of course proper management and programme implementation enhances the effieciency of the relevant actions. In that sense Priority Axis 3 "Technical Assistance" can be seen as an horizontal action with an indirect positive potential impact on the environment.

7.3 ASSESSMENT OF THE OVERALL POTENTIAL IMPACTS OF THE PROGRAMME

The assessment of the overall impacts of the Programme to the nine examined environmental aspects is presented in the following table. The table is extracted by providing scores to the direct and indirect positive or negative impacts of each specific objectives of the priority axes in each environmental target. The total scores are presented below according to the following rule:

- Positive impacts: **+2 units**
- Indirect positive impact: **+1 unit**
- Neutral impact: **0 units**
- Indirect negative impact: **-1 unit**
- Negative impact: **-2 units**

In the last vertical column, the total assessed impact for each environmental aspect is presented taking into account the measures in both priority axes. In the last horizontal column, the total impact in each priority axis is presented.

By assessing the environmental impacts of the BALKAN- MEDITERRANEAN Programme, the following conclusions can be derived:

Table30. Cumulative Assessment of BALKAN- MEDITERRANEAN implementation impacts to the Environmental Targets

ENVIRONMENTAL TARGETS.	PRIORITY AXIS 1: ENTREPRENSHIP AND INNOVATION	PRIORITY AXIS 2: ENVIRONMENT	TOTAL
General –sustainable Development Issues	**6**	**6**	**12**
Water Issues		**5**	**5**
Solid Wastes Issues		**5**	**5**
Soil Issues		**5**	**5**
Air Quality Issues		**5**	**5**
Climate Change and		**5**	**5**

Energy Issues			
Public Health Issues		**5**	**5**
Biodiversity-Fauna-Flora Issues-Flora-Fauna		**5**	**5**
Cultural Heritage Issues		**5**	**5**
Landscape Issues		**5**	**5**
Population-Materials Asset Management Issues		**5**	**5**
Sea Pollution Issues		**5**	**5**
TOTAL	**6**	**61**	**67**

8. MEASURES – PROPOSALS FOR THE PREVENTION AND REDUCTION OF THE POTENTIAL ENVIRONMENTAL IMPACTS

The main points that need to be addressed, so that the environmental effectiveness of the BALKAN-MEDITERRANEAN Programme is enhanced and the maximum results are accomplished, are summarized below:

- Promotion of the maximum cooperation for the utilization of the Programme's funds and development possibilities. In order for the maximum results to be achieved, the cross – border character of the Programme must be utilized and priority should be given to activities that enhance the cooperation between the two countries, targeting to the jointly facing of the environmental problems. This cooperation will result to the effective short and long-term improvement of the natural and human environment.
- Aim to the maximum synergy of the sectoral strategies and the regional relevant Programmes. Both the limited available resources of the Programme and the cross – border character demand the supplementation by sectoral and regional strategies. In this framework, and especially for the environmental sector, the maximum possible synergy with the business Programmes of the new Programming period must be investigated.
- Focus on the special environmental needs of the cooperation area. Before the funding of the activities, the sectors of the Programme must be set in order of precedence, focusing on the needs of the area.
- Aim to maximum result through the assessment of the cost and benefit of the proposed projects. It is very important to assess as many as possible parameters during the selection of the proposals, so as to fund actions that will bring the maximum results.
- Evaluation of the local disparities that are detected in the area during the selection of the projects that will be funded, aiming to the development of the less developed parts of the cooperation area. Through this direction, the maximum utilization of the fund will be accomplished and the strategic objectives of the Programme will be succeeded.
- Aim to communication and exchange of best practices and methods. The cross – border cooperation may contribute to the exchange of know-how between the two countries. This exchange is very important for the development of new business sectors and the competitiveness improvement in the area, securing the economic development and increasing employment. The transfer of best practices is of great importance, especially in cases where one country is more developed than the other.
- Utilization of the existing infrastructures and human scientific resources of the cooperation area.

- Full implementation of the European and national legislative framework regarding the environmental licensing of projects and activities that are included in the field of the BALKAN- MEDITERRANEAN Programme.

BALKAN-MED Programme is expected to have positive impact to the protection of the environment in the area of cooperation.

The most important positive impacts can be found in the aspects: "Biodiversity – Flora – Fauna" and "Water Issues". This is due to the activities that are expected to be implemented and which contribute directly or indirectly to the protection of the very important habitats that exist in the area, as well as of the rare flora and fauna species that live there. No negative potential impact to the environment is expected by the implementation of the activities in the two priority axes.

Priority Axis 2 (entitled "Environment") is obviously expected to have more positive environmental impacts than Priority Axis 1.

Priority Axis 2 aims at strengthening integrated joint approaches to preserve and manage the rich natural and cultural heritage in the region as a prerequisite and a fundamental basis for sustainable development and inclusive growth. Among others, the priority will also support the development of the region as a tourist destination, fostering the "Balkan – Mediterranean" identity. Balance between tourism, environmental protection and economic growth will be sought. The programme will bring together different stakeholders dealing with the protection of natural and cultural heritage. The development and implementation of common strategies and approaches will foster for the protection and sustainable use of natural and cultural heritage. Development of common brands is also creating a favourable environment for sustainable tourism practices, which are based on the valorisation of natural and cultural heritage. The priority will encourage networking and partnerships among central, regional and local administrations, as well as non-governmental organisations, business support centres, tourist agencies, other actors. The programme area has a potential to strengthen common approaches to foster green and blue growth opportunities, promote classified sites and areas of community importance (Natura 2000) develop theme paths and joint products, all guided by a shared policy framework.

In addition, implementation of innovative technologies to protect the environment and guarantee resource efficiency will also be in the focus of the priority.

The capacity of local actors to apply innovative approaches in developing the rich environmental potential of the region will be enhanced through joint education and training activities, sharing and implementing of best practices in the field

9. ENVIRONMENTAL MONITORING SYSTEM

The monitoring of the BALKAN- MEDITERRANEAN Programme is one of the main factors for the successful implementation of the Programme and one of the main requirements of the European Directive 2001/42/EC. The monitoring of the Programme and of its environmental impacts should be ensured at all stages in order to identify immediately and deal with the non-conformities. This is important in order to undertake all the necessary corrective activities, if required.

The correct choice of the indicators is an essential precondition for the successful monitoring of the Programme. The indicators will contribute to the evaluation of the Programme results. The proposed indicators that are presented below are specific and qualitative and can be monitored during the approval of the projects.

Table 31. Suggested Environmental Monitoring Indicators for BALKAN- MEDITERRANEAN

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
PRIORITY AXIS 1 ENTREPRENEURSHIP AND INNOVATION										
Thematic Objective 3: 'Enhancing the competitiveness of SMEs'	**3a**: Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators	**SO 1.1**: Promote entrepreneurship and business creation on the basis on new ideas, innovation and new types of business models.	IP 3.a SO 1.1	Increased capacity of SMEs to develop new business models (%)	%	0 %	2014	10%	Project progress reports	2018/ 2023
			IP 3.a SO 1.1.	Pilot initiatives to test the feasibility of instruments developed by supported projects	Number			15	Project progress reports	Annually
				New business models tested and implemented	Number			22	Project progress reports	Annual

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
	3d: Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes	**SO 1.2.** Facilitate innovation in business models and allow a maximum number of SMEs to innovate and adjust their business models to the changing socioeconomic and policy/regulatory circumstances	IP 3.d SO 1.2	Increased capacity of SMEs to innovate in business models and adjust their business models to the changing economic, social and policy/regulatory circumstances	%	%	2014	10%	Project progress reports	2018/ 2023

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
			IP 3.d SO 1.2	Joint entrepreneurial activities, networks, clusters and strategic business partnerships	Number			20 (2023)	Project progress reports	Annually
				SMEs engaged into internalisation activities	Number			7 (2023)	Project progress reports	Annually
Thematic Objective 10 Investing in education, training and vocational training for skills and lifelong learning by developing	**Additional** Developing and implementing joint education and training systems	**SO 1.3.** Support entrepreneurial learning and knowledge transfer for more competitive SMEs	IP 10 SO 1.3	Entrepreneurs' business capacity increased through trainings, knowledge sharing practices and technology transfer schemes	%	0%	2014	10%	Project progress reports	2018/ 2023

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
education and training infrastructure			IP 10 SO 1.3.	Training schemes that link education and businesses	Number			10 (2023)	Project progress reports	Annually
				Entrepreneurs / SMEs engaged in training and knowledge transfer schemes	Number			50 (2023)	Project progress reports	Annually
PRIORITY AXIS 2 ENVIRONMENT.										
Thematic Objective 6 Preserving and protecting the environment and promoting resource efficiency	**6c:** Conserving, protecting, promoting and developing natural and cultural heritage	**SO 2.1.** Maintain biodiversity and natural ecosystems by strengthening networking and management of protected areas,	IP 6.c SO 2.1	Level of sustainable use of natural and cultural heritage	Rating on a scale from 1 -10	Established through survey	2014	To be established after baseline survey: increasing sustainability	Survey among selected key actors	2018, 2023

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
		including Natura 2000	IP 6.c SO 2.1	Strategies/policies/plans/ models and tools jointly developed and tested	Number			10 (2023)	Project reports	annually
				Designated areas addressed (of which Natura 2000 sites)	Number			15 (7) (2023)	Project reports	annually
				Networks of transnational cooperation established for natural & cultural conservation	Number			8 (2013)	Project reports	annually

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
	6 f: Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution	**SO 2.2.** Promote cooperation and networking aiming to introduce innovative technologies for efficient management of the waste sector, the soil and the water sector including adaptation to the Water Framework Directive (EC/60/2000)	IP 6.f SO 2.2	Efficient resources' management increased (scale to be established)	Rating on a scale from 1-10	Established through survey	2014	To be established after baseline survey: increasing sustainability	Survey among selected key actors	2018, 2023
			IP 6.f SO 2.2	Strategies/policies/plans/ models and tools jointly developed and tested	Number			8 (2013)	Project reports	annually
				Technologies' implementation related to the water efficient management	Number			5 (2013)	Project reports	annually

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
				Networks of transnational cooperation established to improve resource management efficiency	Number			3 (2013)	Project reports	annually
Thematic Objective 11 Enhancing institutional capacity of public authorities and stakeholders and efficient public administration through		**SO 2.3.** Develop skills for better environmental management and increase governance capacities	IP 11 SO 2.3	Increase in compliance with EU specific environmental legislation	%	0%	2014	5%	Projects reports Programme annual report	2018, 2023
			IP 11 SO 2.3	Trained stakeholders (of which public servants)	Number			100 (70) (2013)	Project reports	annually
				Training programmes' implemented	Number			12 (2013)	Project reports	annually

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
actions to strengthen the institutional capacity and the efficiency of public administrations				Networks of transnational cooperation established between public administrators dealing with environmental legislation enforcement	Number			4 (2013)	Project reports	annually

10. REGULATORY ISSUES

10.1 PROJECT DESCRIPTION

The programme objective is to build on shared territorial assets and promote integrated territorial development and cooperation for a more competitive and sustainable Balkan – Mediterranean area.

Two priority axes have been defined in response to the identified transnational key challenges and opportunities above. A third one concerns the Technical Assistance. They are briefly introduced in the following section.

Priority 1: 'Entrepreneurship and Innovation'

Priority Axis 1 is dedicated to actions that will build on the SMEs' capacity and improve their competitiveness, while promoting and supporting the emergence of new SMEs. The Priority will encourage SMEs' cooperation through networks, clusters and clusters policies, in particular that are outward looking and therefore promote their internationalisation.

A special focus of this Priority will be the enhancement of the capacity of SMEs through the implementation of actions related to education and training. The aim is to enable SMEs to acquire the necessary skills/tools to boost their competitiveness, to grow towards other markets and introduce innovation in all phases of their business cycle. By linking education and businesses, this Priority also target to transpose innovation into business practices and processes. Synergies will also be sought with opportunities provided by Cohesion Policy, in particular via regional innovation strategies involving SMEs and other territorial cooperation programmes.

Priority 2: 'Environment'

Priority Axis 2 aims at strengthening integrated joint approaches to preserve and manage the rich natural and cultural heritage in the region as a prerequisite and a fundamental basis for sustainable development and inclusive growth. Among others, the priority will also support the development of the region as a tourist destination, fostering the "Balkan – Mediterranean" identity. Balance between tourism, environmental protection and economic growth will be sought. The programme will bring together different stakeholders dealing with the protection of natural and cultural heritage. The development and implementation of common strategies and approaches will foster for the protection and sustainable use of natural and cultural

heritage. Development of common brands is also creating a favourable environment for sustainable tourism practices, which are based on the valorisation of natural and cultural heritage. The priority will encourage networking and partnerships among central, regional and local administrations, as well as non-governmental organisations, business support centres, tourist agencies, other actors. The programme area has a potential to strengthen common approaches to foster green and blue growth opportunities, promote classified sites and areas of community importance (Natura 2000) develop theme paths and joint products, all guided by a shared policy framework.

In addition, implementation of innovative technologies to protect the environment and guarantee resource efficiency will also be in the focus of the priority.

The capacity of local actors to apply innovative approaches in developing the rich environmental potential of the region will be enhanced through joint education and training activities, sharing and implementing of best practices in the field.

Horizontal dimensions

Apart from thematic orientation, the Balkan – Mediterranean 2014 – 2020 Transnational cooperation programme addresses horizontal thematic aspects highlighted in the EU regulations: sustainable development, equal opportunities and non-discrimination, equality between men and women.

Priority Axis 3: ' Technical Assistance'

Priority Axis 3 is dedicated to BALKAN-MEDITERRANEAN programme related managerial actions. "Technical Assistance" is a tool for the enhancement of the programme management. Of course proper management and programme implementation enhances the efficiency of the relevant actions. In that sense Priority Axis 3 "Technical Assistance" can be seen as an horizontal action too.

10.2 ENVIRONMENTAL TARGETS

Priority Axis 2 aims at strengthening integrated joint approaches to preserve and manage the rich natural and cultural heritage in the region as a prerequisite and a fundamental basis for sustainable development and inclusive growth. Among others, the priority will also support the development of the region as a tourist destination, fostering the "Balkan – Mediterranean" identity. Balance between tourism, environmental protection and economic growth will be sought. The programme will bring together different stakeholders dealing with the protection of natural and cultural heritage. The development and implementation of common strategies and approaches will foster for the protection and sustainable use of natural and cultural heritage. Development of common brands is also creating a favourable environment for sustainable tourism

practices, which are based on the valorisation of natural and cultural heritage. The priority will encourage networking and partnerships among central, regional and local administrations, as well as non-governmental organisations, business support centres, tourist agencies, other actors. The programme area has a potential to strengthen common approaches to foster green and blue growth opportunities, promote classified sites and areas of community importance (Natura 2000) develop theme paths and joint products, all guided by a shared policy framework.

In addition, implementation of innovative technologies to protect the environment and guarantee resource efficiency will also be in the focus of the priority.

Priority Axis 2 is targeted to the preservation and protection of the environment and the promotion of the natural and cultural heritage assets of the Balkan Med region.

10.3 CONSULTATION CONCLUSIONS

This paragraph will be filled as soon as the consultation procedure among all the relevant stakeholders is completed.

10.4 MEASURES – PROPOSALS FOR THE ENVIRONMENTAL OPTIMIZATION OF THE PROGRAMME

The main points that need to be addressed, so that the environmental effectiveness of the Programme is enhanced and the maximum results are accomplished, are summarized below:

- Promotion of the maximum cooperation for the utilization of the Programme's funds and development possibilities. In order for the maximum results to be achieved, the cross – border character of the Programme must be utilized and priority should be given to activities that enhance the cooperation between the two countries, targeting to the jointly facing of the environmental problems. This cooperation will result to the effective short and long-term improvement of the natural and human environment.
- Aim to the maximum synergy of the sectoral strategies and relevant regional Programmes. Both the limited available resources of the Programme and the cross – border character demand the supplementation by sectoral and regional strategies. In this framework, and especially for the

environmental sector, the maximum possible synergy with the business Programmes of the new Programming period must be investigated.

- Focus on the special environmental needs of the cooperation area. Before the funding of the activities, the sectors of the Programme must be set in order of precedence, focusing on the needs of the area.
- Aim to maximum result through the assessment of the cost and benefit of the proposed projects. It is very important to assess as many as possible parameters during the selection of the proposals, so as to fund actions that will bring the maximum results.
- Evaluation of the spatial disparities that are detected in the area during the selection of the projects that will be funded, aiming to the development of the less developed parts of the cooperation area. Through this direction, the maximum utilization of the fund will be accomplished and the strategic objectives of the Programme will be succeeded.
- Aim to communication and exchange of best practices and methods. The cross – border cooperation may contribute to the exchange of know-how between the five countries. This exchange is very important for the development of new business sectors and the competitiveness improvement in the area, securing the economic development and increasing employment. The transfer of best practices is of great importance, especially in cases where one country is more developed than the other.
- Utilization of the existing infrastructures and human scientific resources of the cooperation area.
- Full implementation of the European and national legislative framework regarding the environmental licensing of projects and activities that are included in the field of the Programme.

10.5 BALKAN- MEDITERRANEAN 2014-2020 ENVIRONMENTAL MONITORING SYSTEM

For the Environmental Monitoring of BALKAN- MEDITERRANEAN 2014-2020 Programme a System of proposed indicators are presented below.

Table 32. Suggested Environmental Monitoring Indicators for BALKAN- MEDITERRANEAN 2014-2020

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
PRIORITY AXIS 2 ENVIRONMENT.										
Thematic Objective 6 Preserving and protecting the environment and promoting resource efficiency	**6c:** Conserving, protecting, promoting and developing natural and cultural heritage	**SO 2.1.** Maintain biodiversity and natural ecosystems by strengthening networking and management of protected areas, including Natura 2000	IP 6.c SO 2.1	Level of sustainable use of natural and cultural heritage	Rating on a scale from 1 -10	Established through survey	2014	To be established after baseline survey: increasing sustainability	Survey among selected key actors	2018, 2023
			IP 6.c SO 2.1	Strategies/policies/plans/ models and tools jointly developed and tested	Number			10 (2023)	Project reports	annually
				Designated areas addressed (of which Natura 2000 sites)	Number			15 (7) (2023)	Project reports	annually

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
				Networks of transnational cooperation established for natural & cultural conservation	Number			8 (2013)	Project reports	annually
	6 f: Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution	**SO 2.2.** Promote cooperation and networking aiming to introduce innovative technologies for efficient management of the waste sector, the soil and the water sector including adaptation to	IP 6.f SO 2.2	Efficient resources' management increased (scale to be established)	Rating on a scale from 1-10	Established through survey	2014	To be established after baseline survey: increasing sustainability	Survey among selected key actors	2018, 2023
			IP 6.f SO 2.2	Strategies/policies/plans/ models and tools jointly developed and tested	Number			8 (2013)	Project reports	annually

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
		the Water Framework Directive (EC/60/2000)		Technologies' implementation related to the water efficient management	Number			5 (2013)	Project reports	annually
				Networks of transnational cooperation established to improve resource management efficiency	Number			3 (2013)	Project reports	annually
Thematic Objective 11 Enhancing institutional capacity of public authorities and stakeholders and efficient		**SO 2.3.** Develop skills for better environmental management and increase governance capacities	IP 11 SO 2.3	Increase in compliance with EU specific environmental legislation	%	0%	2014	5%	Projects reports Programme annual report	2018, 2023
			IP 11 SO 2.3	Trained stakeholders (of which public servants)	Number			100 (70) (2013)	Project reports	annually

Selected thematic objective	Selected IP	Specific Objective	ID	Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value	Source of Data	Frequency of Reporting
public administration through actions to strengthen the institutional capacity and the efficiency of public administrations				Training programmes' implemented	Number			12 (2013)	Project reports	annually
				Networks of transnational cooperation established between public administrators dealing with environmental legislation enforcement	Number			4 (2013)	Project reports	annually

10.6BALKAN- MEDITERRANEAN 2014-2020 Guiding Principles for the selection of operations

The Guiding Principles for the selection of operations of BALKAN- MEDITERRANEAN 2014-2020 Programme are presented below.

Table 33. A synthetic overview of Priorities Axes, Thematic Objectives,Investment Priorities, Specific Objectives and suggested Guiding Principles for the selection of operations of BALKAN- MEDITERRANEAN 2014-2020

Selected thematic objective	Selected IP	Specific Objective	suggested Guiding Principles for the selection of operations of BALKAN-MEDITERRANEAN 2014-2020
PA 1 Entrepreneurship and Innovation			
Thematic Objective 3: 'Enhancing the competitiveness of SMEs'	**3a**: Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators	**SO 1.1**: Promote entrepreneurship and business creation on the basis on new ideas, innovation and new types of business models.	The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure. The following guiding principles will be observed when selecting project applications: **Strategic coherence:** coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches. **Operational quality:** design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must.

			Compliance to horizontal principles: coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic. The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee. The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals.
	3d: Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes	**SO 1.2.** Facilitate innovation in business models and allow a maximum number of SMEs to innovate and adjust their business models to the changing socioeconomic and policy/regulatory circumstances	The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure. The following guiding principles will be observed when selecting project applications: **Strategic coherence:** coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches. **Operational quality:** design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and

			result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must. **Compliance to horizontal principles:** coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic. The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee. The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals
Thematic Objective 10 Investing in education, training and vocational training for skills and lifelong learning by developing education and training infrastructure		**SO 1.3.** Support entrepreneurial learning and knowledge transfer for more competitive SMEs.	The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure. The following guiding principles will be observed when selecting project applications: **Strategic coherence:** coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches. **Operational quality:** design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency,

			communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must. **Compliance to horizontal principles:** coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic. The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee. The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals.
PA 2: Environment			
Thematic Objective 6 Preserving and protecting the environment and promoting resource efficiency	**6 c:** Conserving, protecting, promoting and developing natural and cultural heritage	**SO 2.1.** Maintain biodiversity and natural ecosystems by strengthening networking and management of protected areas, including Natura 2000.	The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure. The following guiding principles will be observed when selecting project applications: **Strategic coherence:** coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme

			will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches. **Operational quality:** design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must. **Compliance to horizontal principles**: coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic. The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee. The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee before the first call for proposals.
	6 f: Promoting innovative technologies to improve environmental protection and resource efficiency in	**SO 2.2.** Promote cooperation and networking aiming to introduce innovative technologies for efficient	The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial Cooperation goal, following a standardized assessment procedure. The following guiding principles will be observed when selecting project applications: **Strategic coherence:** coherence and contribution of each project application to the

	the waste sector, water sector and with regard to soil, or to reduce air pollution	management of the waste sector, the soil and the water sector including adaptation to the Water Framework Directive (EC/60/2000)	relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches. **Operational quality:** design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must. **Compliance to horizontal principles**: coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic. The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee. The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring Committee
Thematic Objective 11		**SO 2.3.** Develop skills for better environmental	The selection of project proposals will be carried out according to the requirements of Article 12 of the Regulation (EU) No 1299/2013 on the European Territorial

Enhancing institutional capacity of public authorities and stakeholders and efficient public administration through actions to strengthen the institutional capacity and the efficiency of public administrations and public services related to the implementation of the ERDF, and in support of actions under the ESF to strengthen the institutional capacity and the efficiency of public administration		management and increase governance capacities	Cooperation goal, following a standardized assessment procedure. The following guiding principles will be observed when selecting project applications: **Strategic coherence:** coherence and contribution of each project application to the relevant Programme's specific objective, while addressing in a coherent way the achievement of the Programme's specific results envisaged. Furthermore, the transnational added value of the operation, its territorial dimension and the relevance of the partnership will also be assessed in this context. The Programme will support projects with a clear focus on the implementation of joint transnational actions, which demonstrate the value added of the transnational approach and go far beyond regional, national, interregional or cross-border approaches. **Operational quality:** design of the project application in relation to clarity and coherence of the operational objectives, activities and means, feasibility, efficiency, communication of the project and its specific results, potential for uptake and embedment into operative procedures of the partners involved. The output and result-oriented approach that places much emphasis on the development of concrete, relevant and visible outputs and results will be a must. **Compliance to horizontal principles:** coherence and contribution of each project application to the Programme's horizontal principles and the demonstration of their integration and advancement within the project proposal intervention logic. The detailed assessment criteria will be adopted by the Monitoring Committee and will be made available to potential applicants in the calls for proposals' documentation, which will be prepared and disseminated by the Managing Authority and the Joint Secretariat. Applications for funding shall be ten submitted by Lead Applicants following calls for proposals that will be organised and launched upon subsequent decision of the Monitoring Committee. The "Programme Manual", an information guide on the programme objectives together with a full application package displaying, among other, the selection criteria, shall be set up by the Joint Secretariat and approved by the Monitoring

			Committee before the first call for proposals.

11. PROBLEMS ENCOUNTERED

During the SEA assessment and ex-ante assessment of anticipated environmental impacts of BALKAN-MEDITERRANEAN Programme is carried out, which in general is a per se difficulty.

Another barrier was the low "maturity" of the Programme, the law potential for alternative methodological approach and especially the characteristics of the individual actions that are proposed in the Programming document. This difficulty can be surpassed since the character of the BALKAN- MEDITERRANEAN has a strong environmental feature.

The aforementioned barriers can be addressed, since both the beneficiary and the Managing Authority have the potential to choose and implement environmental friendly actions, which will promote the European policies.

Other difficulties encountered during the realization of the SEA are connected to relative lack of reliable uniform criteria and integrated environmental data **for ALL five beneficiaries countries** (two of them are not part of EU) reliable inventories, in the environmental compartment under analysis.

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