MODERATION OF THE NATIONAL WORKSHOP IN ALBANIA

Deliverable on activity 1.1.1.1 :" *Identify existing CV&C monitoring program and available data in each participating country, as well as options for data sharing in view of developing a multicountry Information sharing portal".*

Project title

"Integration of climatic variability and change into national strategies to implement the ICZM protocol in the Mediterranean"

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Hosted by Albania, Tirana, April 3 & 4, 2013.

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Introduction

1. The Global Environment Facility is supporting the establishement of a Climate Vulnerability and Change (CVC) information sharing plateform, and the Plan Bleu is the agency in charge of implementing the project. Eight Mediterranean countries are covered by the project, among which is Albania. This online gateway is called MedICIP and stands for "Mediterranean Integrated Climate Information Platform".
2. The purpose of the national workshop in Tirana was to identify the existing monitoring programmes, the available data on Climate Vulnerability and Change (CVC) related to coastal zone and the data sharing options to be made available in the portal.
3. The Mediterranean Integrated Climate Information Platform (MedICIP) is the first pillar 1 of the UNEP MAP (Mediterranean Action Plan) and the Plan Bleu project towards a regional adaptation framework for climate change in the Mediterranean. Its purpose is to "develop knowledge, data acquisition and exchange of information on climate variability and change in the Mediterranean region, on the expected impacts (on society, the economy and natural resources), on vulnerability and on adaptation measures, and document good practices of integrated climate risk management and climate adaptation in support to the Integrated Coastal Zone Management (ICZM) in the Mediterranean Basin, to facilitate the information exchange and to enable scientists, the civil societ and and policy makers to access these data".
4. At the same time, it is important to bear in mind the European context, especially for the North Mediterranean countries involved in MedICIP: in addition to Albania, three other countries are involved in the project: Bosnia and Herzegovina, Montenegro and Croatia, the latest becoming a new EU Member country from July 1st, 2013. The EU members countries with Mediterranean coastal zones are similarly committed through a plateform called Climate-Adapt[1].
5. The scenarios for Albania include seasonal and annual climate changes and lead to an annual increase in temperature up to 1°C, 1.8°C, 3.6°C respectively by 2025, 2050 and 2100 and a decrease in precipitation up to - 3.8%, -6.1%, -12.5% by the same time horizons. Due to these results the sea level rise of 48-61 cm for 2100 would result in direct flooding in Albania 4 coastal area.
6. This report is presenting the results of the national workshop held in Tirana, April 3 and 4, 2013, to validate the inputs of the country – in terms of data, indicators, sources of information, etc. – to the MedICIP portal.

[1] http://climate-adapt.eea.europa.eu

Objectives and expectations of the workshop

7. The objectives of the worksop are taken from the document that was circulated to the participants with the agenda, and splitted into three specific objectives

8. Objective I. Review of the existing and missing data with the national report as a starting point

   - Present the main points of the national report prepared during the inception phase.
   - Discuss about the compilation of the existing monitoring programmes on CVC.
   - Select the available data that can be shared in order to feed the MedICIP portal.
   - Identify gaps.
   - Define modalities of data extraction and sharing options.

9. Objective II. Present the MedICIP Portal (content, objectives, modalities, users' needs)

   - Present and discuss contents of the portal (MedICIP).
   - Analysis of users' needs and metadata: form (table, graph, and links towards reports...) and topic/sector (water, agriculture, tourism,).

10. Objective III. Start selecting relevant indicators

    - Review the first selection of indicators.
    - Suggest a core set needed for the country.
    - Discuss indicators and data: which methodology for the selection?

11. The expectations were also cleary presented in the documentation and at the beginning of the wortkshop.

    - Production of a working factsheet for the analysis of user's needs which will be took into account in the MedICIP portal items.
    - National report completed with the concerned institutions.
    - Validation, by the participants, of data and gaps highlighted in the report.
    - A draft of a first core set of indicators.

12. The agenda of the workshop is presented in Annex 1. In total, 23 experts participated to the workshop, which was co-chaired by Mr. Pellumb Abeshi , Head of the Departement of Environmental Policies, Ministry of Environment, Forest and Water Administration (MoEFWA) and by Alexandre Borde, from Plan Bleu. The next sections present the results of the workshop.

Albania data available and gaps

13. The fourth session took the form of a working session with participants reviewing in details the national report and its summary (also called Fact Sheet). It enabled also to inventory the existing data and identify missing information.
14. Based on the national report, the fact sheet and the annexes to the program, the participants proposed a selection of indicators to be implemented and published on the MedICIP website.
15. While some information on climate vulnerability can sensitive, as for instance the areas in coastal zones at risk in terms of flooding, it was decided to make this information available, which should enable a better climate risk management approach, and even policy. A discussion about the coverage, in terms of insurance, followed, when floods occur (such as in 2012).

Area expected to be covered by sea level rise (by 2100) and habitat losses (from UNDP presentation by Eglantina Bruci)

16. Using the categories of indicators from the program of the workshop, their relevance was discussed, the sources of data available and the gaps were reviewed, and the relevant institutions inventoried (cf. table below).

Selection of indicators
Topic/sector 1 (Meteorological data) • Indicators: rainfall (including variability during the year) and temperature • Form (mostly temporal series) • Reports available on this topic/sector: to be confirmed • Institutions that host/manage the related data: Institute of GeoSciences, Energy, Water and Environment (IGEWE/IGJEUM), http://www.geo.edu.al
Topic/sector 2 (Coastal zones) • Indicators: coastal erosion, soil erosion, groundwater levels and salinization • Form (unknown) • Reports available on this topic/sector: to be confirmed • Institutions that host/manage the related data: Ministry of Agriculture (agriculture technology transfer centres - ATTCs), http://www.mbumk.gov.al
Topic/sector 3 (Water management) • Indicators: river levels and sea levels • Form (temporal series) • Reports available on this topic/sector: yes • Institutions that host/manage the related data: Institute of GeoSciences, Energy, Water and Environment (IGEWE/IGJEUM), http://www.geo.edu.al
Topic/sector 4 (Biodiversity) • Indicators: Changes in biodiversity, number of invasive species, • Form (maps?) • Reports available on this topic/sector: yes (http://www.moe.gov.al/en/ftp%20upload/publications/reports/al-nr-04-en.pdf) • Institutions that host/manage the related data: Ministry of Environment, Forests and Water Administration, http://www.moe.gov.al – Agency for Environment and Forestry, http://www.aefalbania.org
Topic/sector 5 (Drought and forest fires) • Indicators: occurrence of forest fires (number and areas affected per year) • Form (temporal series) • Reports available on this topic/sector: to be confirmed • Institutions that host/manage the related data: Ministry of Interior Affairs, http://www.moi.gov.al – Forestry offices
Topic/sector 6 (Natural Disasters Risks from CC) • Indicators: areas potentially affected by floods, storms, etc., amounts covered by insurances • Form (maps) • Reports available on this topic/sector: to be confirmed • Institutions that host/manage the related data: Ministry of Interior Affairs, http://www.moi.gov.al – Ministry of Environment, Forests and Water Administration, http://www.moe.gov.al
Topic/sector 7 (Socio-economic data) • Indicators: • Form (temporal series) • Reports available on this topic/sector: yes • Institutions that host/manage the related data: INSTAT, http://www.instat.gov.al – local governmental units, http://www.aac-al.org
Topic/sector 8 (Local development) • Indicators: number of local development plans taking adaptation into consideration • Form (temporal series) • Reports available on this topic/sector: no • Institutions that host/manage the related data: local governmental units, http://www.aac-al.org,

Albanian Development Fund, http://www.albaniandf.org
Topic/sector 9 (GHG emissions) • Indicators: GHG emissions • Form (temporal series) • Reports available on this topic/sector: yes (UNFCCC National Communications) • Institutions that host/manage the related data: Ministry of Environment, Forests and Water Administration, http://www.moe.gov.al
Topic/sector 10 (Agriculture and Forest pest diseases) • Indicators: measurement of the importance of the diseases, invasive species inventoried affecting agriculture and forestry • Form (temporal series) • Reports available on this topic/sector: to be confirmed • Institutions that host/manage the related data: Ministry of Environment, Forests and Water Administration, http://www.moe.gov.al – Agency for Environment and Forestry, http://www.aefalbania.org – Ministry of Agriculture
Topic/sector 11 (Legal framework) • Indicators: number of best practices, number of laws and regulations on climate change adaptation • Form (temporal series) • Reports available on this topic/sector: to be confirmed • Institutions that host/manage the related data: Ministry of Environment, Forests and Water Administration, http://www.moe.gov.al – other ministries on a case by case approach
Topic/sector 12 (Participation of stakeholders) • Indicators: number of NGOs, associations, universities, etc concerned by climate change • Form (qualitative data) • Reports available on this topic/sector: to be confirmed • Institutions that host/manage the related data: Ministry of Environment, Forests and Water Administration, http://www.moe.gov.al – other ministries on a case by case approach
User needs and value of the platform
Technical and scientist assistance • develop and implement a national monitoring programme of climate variability and change • model climate change (running scenarios/models) • develop technical tools (guidelines, manual, etc) • develop adequate legislation regarding climate variability and change adaptation into national policies, plans, regulations and programs. Stakeholder class • Decision makers • managers • scientists

Outputs and recommendations

17. Mr. Abdulla Diku presented the results of its country report from January 2011. The summary was reviewed in details and amended accordingly.

18. It must be noted that a new law is in place for a National Environmental Agency replacing the Agency for Forest and Environment. It will be responsible for licensing and supervising the REAs.

19. The Ministry of Environment, Forest and Water Administration (MoEFWA) and the existing and the new Agency centralizes most of those data are dealing with the water resources (quality and quantity), climate, air quality, vegetation, fauna census. The update is made every year.

20. In addition to institutional changes within MoEFWA, other institutes merged or were reorganized. The Institute of Energy, Water and Environment (IEWE) became the Institute of GeoSciences, Energy, Water and Environment (IGEWE/IGJEUM).

21. The Ministry of Environment, Forest and Water Administration (MoEFWA) is the proper focal point for the Plan Bleu in implementing the MedICIP. And it should also be possible to have, with MoEFWA's support, direct contacts with other important albanese institutions, if needed. For instance, if it is relevant, Institute of GeoSciences, Energy, Water and Environment could be one of the institutions to cooperate with during the next steps of the project, i.e. to reach the regional consensus mechanism for CV&C data sharing, to develop the CV&C indicators and publish the MedICIP platform online.

22. As for the other Balkan countries involved, Albania is a candidate to the European Union. Hence, the cooperation with the MoEFWA should go along the objectives of the EU.

Annexes

Annex 1. Program of the workshop

April 3, 2013	
9:00-9:30	Openings of the workshop *(Pellumb Abeshi, DG Environmental Affairs, MoEFWA and Alexandre Borde, consultant, Plan Bleu)*
9:30-9:45	Round table
9:45-10:05	1. Presentation of the scope and objectives *(Alexandre Borde, consultant, Plan Bleu)* ➢ Reminder of the objectives of the project and those of the national workshop ➢ Agreement on the objectives of the workshop
10:05-11:00	2. Presentations of adaptation to climate change issues in the coastal zones of Albania ➢ Introduction of the main part of the report about « Climatic variability and change into national strategies to implement ICZM Protocol » *(Abdulla Diku, author of the country report)* ➢ Clime Change and adaptation measures in the coastal zone. Project Drini -Mati Delta River for adaptation on clime change *(Eglantina Bruci, Coordinator of the project financed from GEF and implemented by UNDP, Albania)* ➢ Marine protected area and clime change impact. Existing gaps *(Violeta Zuna, coordinator of the project of marine protected area. Financed by GEF and implemented by UNDP, Albania)* ➢ Integrated coastal zone management in Albania, activities and the problems *(Laureta Dibra, Head of the Air, Climate Change and Chemicals Unit, MoEFWA)*
11:00-11:30	*Coffee break*
11:30-12:00	3. Presentation of the possible content of the MedICIP portal and the indicators *(Alexandre Borde, consultant, Plan Bleu)* ➢ Presentation of the functionalities and contents of MedICIP ➢ Presentation of the first possible set of indicators and discussion about the methodology for their selection.
12:00-12:30	Discussion
12:30-14:00	*Lunch time*
14:00-17:30 *With coffee break 15:30-16:00*	4. Working session and analyse of users' need *(Alexandre Borde, consultant, Plan Bleu and Abdulla Diku, author of the country report)* ➢ Monitoring programmes in countries ➢ Inventorying of the data available, the gaps, etc. ➢ Identifying key indicators, the data networks, etc. ➢ Feeding the MedICIP with the proper information Conclusions of the working session *(Pellumb Abeshi, DG Environmental Affairs, MoEFWA and Alexandre Borde, consultant, Plan Bleu)*
April 4, 2013	
9:00-12:30	5. Conclusion and next steps *(Pellumb Abeshi, DG Environmental Affairs, MoEFWA and Alexandre Borde, consultant, Plan Bleu)* ➢ Summary of the results ➢ Overview of the next steps: relationship with the portal and the regional synthesis on CVC data availability and gaps ➢ Agreement on the distribution of tasks and upcoming events ➢ Revision of the national report produced during the inception phase of the project.

Annex II. List of participants (to complete shortly)

Name	Institution	Email/Phone
Abdulla Dlku	Expert	adiku@hotmail.com
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Eglantina Bruci	UNDP CCP	0696045647
Laureta Dibra	MMPAU	0682040456
Jonila Haxhillari	MMPAU	0672067654
Bilena Hyseni	PSEDA ILIRIA	0696159609
Nurie Visha	DSHP Tirane	0682034353
Silvamina Alshabani	MMPAU-zonat e mbrojtura	0672047923
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Annex III. List of presentations and other document made available during the workshop

- Presentation on Climatic variability and change into national strategies to implement ICZM Protocol in Albania, April 3 & 4, 2013, Abdulla Diku, 24 slides.

- Presentation on Integrated Ecosystem Monitoring Programme Project Identification and implementation of adaptation response measures in Drini-Mati River Delta, April 3 & 4 2013, Eglantina Bruci, 13 pages.

- Presentation on Identification of existing monitoring programmes, the available data on CVC related to coastal zone and the data sharing options in view of developing a multi-country information sharing portal, April 34 & 4 2013, 12 slides.

- Presentation on Contribution of UNDP on the Improvement of the Coverage and Management of Marine and Coastal Protected Areas, Violeta Zuna, April 3 & 4 2013, 15 pages.

Annex IV. Fact sheet reviewed and amended

Context

The level of education for climate change is low even for environmental education in general.

Operation

The Ministry of Environment, Forest and Water Administration (MEFWA), collects necessary data from different research institutes and line ministries. The REAs supervise and apply preliminary environmental licensing, and collect and process the data on the environmental situation at municipal and prefecture level. A new law is in place for a National Environmental Agency replacing the Agency for Forest and Environment. It will be responsible for licensing and supervising the REAs.

Data available

- MEFWA and the existing and the new Agency centralizes most of those data are dealing with the water resources (quality and quantity), climate, air quality, vegetation, fauna census. Updating: every year.
- The IGJEUM collects the data from stations, to process them in the national centre in Tirana, for weather forecast purposes.
- All the hydro meteorological information is sent to the IGJEUM after processing is archived (paper, ongoing digitalization).
- The meteorological archive consists of raw and processed data of air temperature (all indexes - minimum, maximum, and mean); precipitation (daily, monthly, yearly amount, intensity for different time duration etc.); wind; sunshine radiation; humidity, etc. The hydrological data archived are the mean daily water level, monthly and yearly means, maximal and minimal water level, daily discharge and monthly and yearly mean, maximal and minimal discharge.
- The raw data, especially for the surface water and soil, are, among other, interpreted in relation to the climate change effects.
- The Climate Change programme is currently producing an inventory of Green House Gases, an analysis of preventive measures to curb emissions, and an assessment of the potential impact of Climate Change on selected areas.
- The Agriculture University of Tirana is compiling data and responsible for monitoring soil erosion.
- The Geological Service Survey is responsible for groundwater monitoring.

Data gaps / Other lack / Needs

- The objective of the National Capacity Self Assessment was to assess capacity needs and priorities (in 2006).
- No specific law for the climate change had been approved and no comprehensive national policy to address climate changes has been adopted to date but there are sector strategies under preparation, which should include CC issues.

- There are not many studies and information concerning national marine and coastal areas affects from the climate change phenomena. No systematic monitoring of the climate change effects on coastal area is present. However, UNDP is developing a project with a monitoring component of marine and coastal zones. Another UNDP project, the DMDR project, is also collecting valuable information on coastal zones.
- There is one site (DMDR) measuring impacts occurring in return to climate trends, understanding the factors determining the resilience and adaptive capacity of ecosystems, assessing the changes of the coastal line and the effect of river basin in this phenomena, comprehensive assessment of adaptation options available, including the modifications needed to existing conservation planning and practice, analyses of present and future social and economic costs of climate change impacts. There is a need to replicate this to other sites.
- Until 2005, in some stations transmission was made by phone on daily basis for data of the extreme temperatures and precipitation and monthly data monitored from all stations reach the center one month later by mail. This procedure is not available and effective for weather and extreme event predictions, and especially for prediction of river discharge and warning of the agriculture land inundation (to be checked with IGJEUM).
- No digital database, data are stored in the paper format and only a part of it is in the electronic format. The process of data archiving needs a lot of time due to the lack of the network system computers. All these data are stored in the paper format and only a part of it is in the electronic format. Nowadays they are under the digitizing process (to be checked with IGJEUM).
- Lack of financial support, no special funds for staff training even if WMO provides to members a variety training programs.

There are not many studies concerning national marine and coastal areas affect from the climate change phenomena, so that the main problems are the lack of:

- Documentation of impacts already occurring in return to climate trends;
- Understanding of factors determining the resilience and adaptive capacity of ecosystems, including the roles of habitat extent, connectivity and quality, flow regimes, and disturbances;
- Assess the changes of the coastal line and the effect of river basin in this phenomena;
- Analyses of the species, habitats and ecosystems most vulnerable to climate changes;
- Comprehensive assessment of adaptation options available, including the modifications needed to existing conservation planning and practice (in situ and ex-situ conservation);
- Analyses of present and future social and economic costs of climate change impacts.

Strengths

- Mitigation and adaptation measures are addressed through NCCAP (National Climate Change Action Plan), which consists of a set of priorities for action to integrate the climate change concerns into other economic development plans. However, an update is necessary.
- Several strategies and plans are developed and adopted, like the revised NEAP, Energy Strategy, Strategy of Forestry Development, Urban Waste Management Plan, Strategy of Agriculture, National Action Plan for Health and Environment, Growth and Poverty Reduction Strategy, Biodiversity Strategy, Water Strategy.

Monitoring program

- Who? After September 2007 the research institutions of the Academy of Sciences were merged with the University department creating biggest centres of research inside the Universities as part of a new institutional reform taken by the Government.
- About what? Hydrological and climatologically aspects and few research studies with biodiversity (flora and fauna).

- Who? IGJEUM as part of the Polytechnic University of Tirana (previously the Institute of Energy, Water and Environment). The National Agency of Environment and Forest (including the previous Research Institute of Forest and Pastures and Institute of Environment) depending from the Ministry of Environment, Public Health Institute, the Centre of Study for Flora and Fauna,
- About what? Dealing with climate change research
- The monitoring program for environmental is supported by the Ministry of Environment (publication of the State of Environment) and the existing network of the research institutions. There are also several surveys or studies in certain areas from different project that can be used as a basis for data collection in time and spatial manner. From 2013, the Agency for Environment will be responsible for supervising the overall monitoring of environmental related information (biodiversity, air and water).
- Albania is member of World Meteorological Organization (WMO).

Network

- Meteorological: Monitoring of meteorological elements in Albania in all the territory, 126 meteorological stations (check/update with IGJEUM).
- Hydrological: National Hydrological Network (NHN) consists of 103 stations, from which 92 in rivers, springs and channels, 6 stations in seacoast and lagoons and 5 in lakes. The main parameters monitored are: (i) water level by the staff gauges or automatic recording system (15 analogue water level recorders, 5 electronic level recorders and 2 D.C.P), (ii) river discharge by the method of flow velocities, using the current meters. (check/update with IGJEUM)
- Marine: monitoring network, tide parameters, wind, water temperature and some chemical elements are measured. Currently, no recorder devices exist.

List of institutions

1. Ministry of Environment, Forest and Water Administration
2. Ministry of Agriculture, Food and Consumer Protection
3. Ministry of Public Work and Transportation
4. Ministry of Tourism, Culture, Youth and Sport
5. Albanian Geological Survey Institute
6. Institute of Nature Conservation in Albania
7. Ministry of Interior Affairs.
8. Universities
9. Ministry of Economy
10. More from the topic/indicators part

Vulnerable zones

- Coastal zone and the most vulnerable sectors are water resources, agriculture energy and tourism, forest, health
- These concerns from climate change are expected to influence directly in 10 protected areas, but the most problematic zones near the seashore regarding the erosion and climate vulnerability are:
  - Pisheporo (Vlore).
  - Lalzi (Durres).
  - Patok Beach.
  - Velipoje.
  - Karpen (Kavaje).
  - The delta of Hoxhara Chanel (Vjose-Seman).
- Regarding physical impact:
  - decrease in precipitation,
  - annual increase in temperature,
  - sea level rise and coastal flooding,
  - destruction of hydro regimes in the lagoon,
  - damage and fragmentation of habitats,
  - increasing coastal erosion,
  - introduction of salt water on agricultural land,
  - changes in groundwater level and pollution,
  - increased stress on flora and fauna,
  - changes in total water amount and levels,
  - erosion of riverbeds,
  - modification of turbidity and sediment load,
  - changes in pest and diseases.
- The diagnosis seems to be established and some scenario has to be build until the horizon 2050/2100.

Scenario

- The expected Climate Change Scenario for Albania (CCSA), including seasonal and annual changes scenarios, leads to an annual increase in temperature up to 1°C, 1.8°C, 3.6°C respectively by 2025, 2050 and 2100 and a decrease in precipitation up to - 3.8%, -6.1%, -12.5% by the same time horizons.
- In the previous studies the assessment of vulnerabilities is focused on the assessment of the expected climate impacts in hydrosphere, natural and managed ecosystems, energy, tourism, public health, population.

Other element
The Integrated Coastal Zone Management for the Southern coast of Albania (WB project) was another attempt to include the climate change effect in the coastal zone development issues. But the project did have some serious problem in the implementation and did not reach it expected results.

For MedICIP: link towards all the literature

International documents

- *Impact of climate change on biodiversity in the Mediterranean Sea*, UNEP/MAP – RAC/SPA 2008;
- *Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, 2007, The Physical Science Basis - Summary for Policymakers, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE;
- Synthesis Report, Climate Change 2007, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE;
- *Climate Change and vulnerability of the Bern Convention Species and Habitats*, 2nd Meeting of the Group of Experts on Biodiversity and Climate Change, Council of Europe;
- *Climatic change and the conservation of European biodiversity: Towards the development of adaptation strategies*, Standing Committee of Bern Convention, Council of Europe;
- *Climate change impacts in the Mediterranean resulting from a 2oC global temperature rise*, A Report for WWF 2005;
- *Global change ecology*, William H. Schlesinger, TRENDS in Ecology and Evolution Vol.21 No.6 June 2006;
- *Biological invasions as a component of global change in stressed marine ecosystems*, Marine Pollution Bulletin 46 (2003) 542–551.

National documents

- *Albanian Costal Zone Diagnosis Analysis Report*, Expert report 2005;
- *Synthesis Report on stocktaking of climate change activities carried out in Albania up to 2004*, UNDP-GEF Climate Change Program- Albania;
- *The First National Communication of the Republic of Albania to the United Nations Framework Convention on Climate Change (UNFCCC)*, Ministry of Environment 2002;
- *Albania's Technology Needs Assessment*, UNDP & MEFWAFWA, 2005;
- *State of Environment report*, 1999-2011;
- *Southern Coastal Development Plan - Strategic Environmental Assessment*, Ministry of Public Works, Transport and Telecommunication, COWI 2007;
- *National Energy Strategy*, Final Draft 2008;
- *The Second National Communication of the Republic of Albania to the United Nations Framework Convention on Climate Change (UNFCCC)*, Ministry of Environment, Forest and Water Administration 2009
- Albanian national overview on vulnerability and impacts of Climate Change on Marine and coastal biodiversity;
- Albania National Capacity Self Assessment for Global Environmental Management (GEF/UNDP), 2006

Other documents identified

- *Conserving European Biodiversity in the context of Climate Change*, Committee for the activities of the Council of Europe in the field of biological and landscape diversity, 2005;
- *Integration of Biodiversity Concerns in Climate Change Mitigation Activities*, A Toolkit, Institute for Biodiversity Network (IBN) & The Association of Engineers (VDI).
- *Towards a Strategic Framework on Climate Change and Development for the World Bank Group*, Concept Issue Paper, February 2008
- WB report on *Adapting to Climate Change in Europe and Central Asia, June 2009*.

Project

- Identification of adaptation response measures in the Drini - Mati River Deltas (May 2008 - May 2012),
- UNDP project on coastal and marine areas.