

Terms of Reference

For Vulnerability and Adaptation

Under the UNDP-GEF Project:

“Enabling Albania to prepare its Second National Communication to the CoP of the UNFCCC”

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1. Background to the project

In accordance with GEF Operational Procedures for the Expedited Financing of National Communications from Non-Annex I Parties (GEF/C.22/Inf.16), the Government of ALBANIA after the completion and submission to the Cop of the UNFCCC its first National Communication has requested US\$ 420 from the Global Environment Facility (GEF) to prepare the Second National Communication to the Cop of the UNFCCC.

This project *aims* at enabling Albania to prepare and report its Second National Communication with the Conference of the Parties (Cop) of the UN Framework Convention on Climate Change (UNFCCC) according to 17/CP.8 and other guidance provided. It will be a follow up of previous studies already identified under a stocktaking exercise. The project will be working under a priority area / category selection approach in order to allocate resources in the most effective manner. The *main components* of the project are: (a) an inventory of greenhouse gases for the year 2000 and time series 1994-2000; (b) an update of analysis of potential measures to abate the increase in greenhouse gas emissions in Albania; (c) an assessment of potential impacts of climate change in a selected area of Albania and adaptation measures; (d) preparation of the Second National Communication of Albania and submission to the Cop. In addition, public awareness activities and stakeholder consultations will be cross-cutting along the overall course of this exercise therefore, the preparation of the Second National Communication is expected to enhance general awareness and knowledge on climate change-related issues in Albania, and help into highly taking them into account in the process of national planning and policy.

2. Objective of the Vulnerability and Adaptation

The *aim* of the study of the Vulnerability and adaptation is to provide a clear picture of the climate impacts to the socio-economic and environmental components of a system already selected under the project preparatory phase and provide policy advice for building adaptive capacities and mainstreaming adaptation issues into community based development agenda for this system.

3. Scope of the study

As indicated in the [project document](#) for preparation of SNC, differently to the First National Communication, which has been, focused on the overall Albania's territory, the Second National Communication is focused to a smaller but compound area with subset of vulnerabilities, likelihood of significant impacts of climate change and significant development context. By using the tool of multi-criteria analysis where a set of criteria, weight and scoring were involved the *Drini River Cascade* (area from *Kukës* up to the *Lezha* Plain) was selected as the most priority one between two other areas. It has significant representative patterns: is wide spread, from east to west of Albania putting together an interesting topographic diversity such as mountains, gorges, fields, coast, seashore.

In addition, during the project preparation phase the V&A team agreed that the assessment of vulnerability would be sector –specific. However a *special attention* will be put to *water resources and their respective impact to the hydroelectricity* produced, as it is known that more than 95% of electrical energy in Albania is produced from hydro sources and HPPs of the selected area are known for their significant capacity of electricity generation. The assessment will also integrate other sectors like agriculture (irrigation systems), forests (erosion) etc., therefore, an *integrated assessment* will be done at the possible extend.

Further to Albania's FNC, the Albania's SNC will provide some additional and updated information (especially after 1990) on: (i) geographic profile; (ii) climate profile; (iii) natural resources (water, forests;

land use); (iv) economic and sector profile (agriculture; livestock; fisheries; energy; tourism); (v) resources and infrastructure (population).

The geographic profile will consist on geographical information of the study area selected from stocktaking exercise (STE). The STE team agreed to narrow the focus of the assessment to a compound area with subset of vulnerabilities, ***Drini River Cascade (area from Kukës up to the Lezha Plain)***.

There is a need to review the *climate profile* (temperature and precipitation) for the area especially with the recent extreme weather events. Additional information will be provided for the time horizon 1990-2003 which will be additional to the previous baseline 1960-1990.

As per the *natural resources* the majority of the information will be provided on forests, pastures and land use change over the study area along with the most recent legal and policy framework that regulates the forest and land use change in Albania.

The review of the information on *economic and sector profile* (agriculture; livestock; fisheries; energy; tourism) will consist first on the update of the information regarding the newly adopted strategies for socio-economic development such as National Strategy for Socio-Economic Development (NSSED), Poverty Reduction Strategy Paper, (PRSP), MDGs, and Stabilization Association Agreement (SAA), National Energy Strategy, National Strategy for Development of non-Food Industry Sector, Strategy for Development of Agriculture, and Strategy for Development of Tourism. Information on GDP trends for the period 1990 –2004 will be additional too.

The review and update of the information on *infrastructure* such as: population and settlement, environment will consist on the update of the new trends of development for each item under this section such as trends on population development during 1990-2004. The state of the environment including the state of urban air, water waste and hot spots will be provided along with institutional framework, legal framework, and public awareness and education on environment. This type of information would be new as it was missing to the Albania's FNC.

4. Deliverables and submission requirements

Based on above scope of the study, after the elaboration of the study the V&A team will deliver to the climate change program within the deadlines set under the working plan the following parts:

1. Long report on V&A: about 60 -70 pages
2. V&A chapter for Albania's Second National Communication: maximum 25 pages
3. Executive summary of the V&A chapter: maximum 2-3 pages.
4. Respective part of national circumstances for sectors and area covered under the V&A study, including the situation of systematic observations.

The above reports will be will be submitted in Time New Romans, Font 11. In order to make the report as much as comprehensive they must have tables, charts and maps if available. Charts must be submitted in excel in order to allow editing. All worksheets compiled under the study must be provided to the climate change program and be archived and documented.

5. Content/Outline of the V&A report

5.1 Background information:

The section will set the context for the V&A under the UNFCCC and especially to the National Communication and under the national development agenda. More specifically this section must include:

- V&A related requirements under UNFCCC and National Communication exercise
- Importance of V&A understanding and assessment.
- The link and difference between V&A ¹and GHG mitigation.
- Basis of provision of V&A related information such as IPCC assessment reports and/or IPCC Technical guidelines and papers; other international literature; expert judgments; modeling and statistical simulations etc.

5.2 Scope of the study

This section will provide information on what will be the new V&A study, what's new that it will bring, sectors under analysis; reasons why this area and these sectors; the time-line to be covered :

- the scope of the study, as indicated in the SNC project proposal:
 - Spatial/geographical boundaries of the study
 - Sectors under analysis and reasons why these sectors are selected, as indicated in the SNC project proposal
 - Time horizons (this has to be decided from the team in the course of work),

5.3. Baseline of the V&A study

This section will provide information the baseline conditions of the study, i.e where the new study starts on and the situation of sectors. This section will include information on:

- Activities, measures, and programs that are being undertaken so far regarding climate vulnerability and assessment. A summary matrix of vulnerabilities according sectors along with response measures proposed will be part of this sub-section.
- Baseline conditions ²of the area under analysis and sectors under assessment such as climate; population; agriculture and food security; water resources; urbanization; environmental problems (coastal erosion; forests; waste; air quality etc)
- Methodological approaches to perform such studies
- Gaps identified needs and concerns from such studies and lessons learnt.

5.4. Methodological approach

This section will summarize the overall methodological approach used for the V&A study. More in details it must cover the following:

¹ It is important to stress that this report is synthesis of the current state of knowledge and to stress that climate change V&A is an on-going process

² This sub-section will stand under baseline section for the long V&A report but for the short one to be elaborated for the SNC it will go under the National Circumstances.

- Methodology and guidelines used and justifications why this or that methodology has been selected and make reference to all of them as an Annex.
- Organization of the work to carry out the assessment, stakeholders participated. Names of institutions involved must accompany the report and must display either in an Annex.
- Type of assessment (qualitative, quantitative, mixed, software-based etc) must be indicated. It is necessary to document the methodology and guidelines used in an Annex.
- Uncertainties and other limitations must be mentioned.

5.5 Current climate vulnerability & adaptation

This section will address two key areas associated with current conditions:

- Vulnerability to current climate and scope.
- Effectiveness of adaptation measures that may have already been implemented.

The section will consist on the following subchapters:

- *Assessment of climate risks and potential impacts*, (characterizing climate variability; extremes and hazards; assessing impacts; developing risk assessment criteria; and assessing current climate risks). Assessing current climate risks with fundamentally depends on the approach selected³ (e.g., climate hazard approach, vulnerability-based approach, policy analysis approach, or the adaptive capacity approach). Existing information on risks and hazards can be used
- *Assessment⁴ of socio-economic conditions within the priority system(s)*. It will contain a concise description of current conditions affecting current vulnerability and risk. This description can also be used for the development socio-economic scenarios for the system(s) and inform projections of future vulnerability and climate risk. It can entail: (i) clarifying system boundaries; (ii) developing system indicators; (iii) describing socioeconomic conditions today; and (iv) analysis of critical characteristics.
- Assessment of adaptation experience (including policies and measures) and adaptive capacity. The output of the task will be an adaptation baseline. This baseline is a description of the recent and current adaptation experience, including policies and measures currently in place, and an assessment of current adaptive capacity. In subsequent components, the adaptation baseline can be used to assess future adaptive capacity. Assessing adaptation experience involves two main processes: (1) thorough scoping and synthesis of existing information on policies and measures relevant to adaptation in the sectors considered, and (2) an assessment of the system's capacity (generic and specific) to adapt to current hazards – i.e., how well have these policies and measures worked? For a thorough assessment, both autonomous and planned adaptations (if any) should be explored.
- *Assessment of vulnerability (to both socioeconomic conditions and climate)*. Assessment of current vulnerability (both socioeconomic and climate) can involve a detailed synthesis of the assessments in the preceding tasks (climate risks, socioeconomic conditions, etc.). It can be a simple synthesis of pre-existing vulnerability assessments. Or it can be something in between. As with preceding tasks, vulnerability assessment can be the *detailed process* or a *qualitative input* to an assessment of current climate risks.

³ The team will decide about the approach in the course of work.

⁴ The team will determine the most appropriate socio-economic indicators (qualitative, quantitative or mixed) for every sector, and assembling description (data-rich or qualitative) on current socio-economic conditions. The description should include demographic, economic, natural resources, governance/development and cultural aspects of current conditions.

5.6 Assessment of future climate-related risks

The purpose of this section is to describe potential future climate change and the risks and opportunities associated with it. Generally, it will consist of two basic elements – a set of future climate change scenarios and an analysis of associated risk. The elements of this section would be as following:

- *Climate change scenarios for Albania.* The main task is to update the climate change scenarios for Albania, by using the new version of MAGICC/SCENGEN. In the course of work the team will decide about scenarios (SRES family or others), GCMs and time horizons to be used.
- *Socio-economic trends.* The purpose of this task is to develop and describe prospective socio-economic conditions in the priority sectors. There are two primary tasks involved. The first is to develop alternative “storylines” of the future for an appropriate time period (e.g., between 20 and 50 years, or more into the future). The second is to make projections about how socio-economic conditions will change in the future under the alternative storylines. The output will be a series of quantitative and/or qualitative scenarios. These scenarios⁵ can be used as input to projections of future vulnerability and climate risk. Characterizing future socio-economic conditions will involve building on an assessment of *current* conditions. This task will entail a characterization of multiple alternative storylines. These can include a reference scenario (when climate change is not taken into consideration), which begins with current socio-economic conditions and projects them into the future; and two or more alternative conceptions of the future, which take climate change into account and imply adaptation policies. When integrated with additional trends this series can include:
 - baselines without adaptation measures,
 - scenarios incorporating past and current adaptation measures (adaptation baselines)
 - scenarios incorporating additional adaptation policies and measures
- *Natural resource and environmental trends* This sub-section will indicate the assessment of natural resource management trends and future plans for the communities under the selected area that may be vulnerable to climate change impacts and the sources of their vulnerability. Changes in environmental conditions may require environmental scenarios to be developed where important feedbacks may exacerbate climate-related risks, where environmental conditions may influence adaptive capacity, or where environmental management options can be used to assess adaptation. Environmental scenarios can be projected from models developed for that purpose, via socio-economic story lines or as regular changes in conditions designed to assess sensitivity. Such scenarios include land-use/land cover change, ozone, water resource scenarios, etc. Each team member is expected to propose about the scenarios. Should models/soft cannot be provided by Climate Change Unit, the team has to decide what approach to use: expert judgment or analogue as in FNC.

⁵ To develop these scenarios, the team can build their own, or use/adapt existing ones. This can be a detailed, quantitative process, or a more qualitative one. Either way, the process will likely involve working with stakeholders to determine the most appropriate storylines and scenarios for the priority system

5.7 Policy paper for adaptation of Drini River Delta

This section will include information on the broad possibilities for responding to the effects and their interaction that will be identified in the course of the study. A prioritization of response measures will be made after selection of assessment criteria such as cost, adaptation capacity; practicability, poverty eradication; environmental benefits and social acceptability, gender empower etc.

More specifically the section will have the following sub-sections:

- *Identification and formulation of adaptation options;* (characterize adaptation options, in terms of their costs, impacts, and potential barriers);
- *Selection of criteria for prioritizing options:* e.g. screening and multi-criteria analysis,
- *Selection and prioritizing adaptation options*
- *Barriers and oportunities.* Aspects of national /local decision making processes that either pose potential barriers to mainstreaming adaptation into development planning, or that provide important opportunities to build adaptive capacity in the policymaking process will be identified. This will typically require that (1) the institutional, environmental, and participatory aspects of the planning and policymaking process be well understood, and (2) the pathways for implementation of policy (laws, standards, regulations) are assessed regarding their roles, effectiveness, and institutional linkages.
- *Needs assessment in terms of capacity building, institutional strengthening, financial, public awareness, education, trainig and information*

A summary matrix of impacts, vulnerabilities and adaptation options must be developed under this section.

5.8 Annexes

This section will contain but not limited to the following items:

- Different guidelines for the study if different than those provide under 17/CP8
- Acronyms
- Maps if not judged appropriate to put under the text
- List of authors
- List of references
- Others

5.9 V&A chapter for Albania's SNC

This section will be elaborated upon the completion of the final draft of the V&A report. It will sumarie the long report in a size up to 20-25 pages the maximum.

5.10 Executive summary

This section will be elaborated upon the completion of the final draft of the V&A chapter of the Albania's SNC.

6. Other information

6.1 Research and systematic observation systems

This section will be presented under another chapter, rather than V&A. It will be under the “other information” chapter of SNC. The reporting under this section will consist on the following:

- Status of the national program for research and systematic observation
- Meteorological, atmospheric and hydrological research and observation
- Level of participation in the global research and observation systems
- Needs and priorities for climate change research and systematic observations

6.2 Activities relating to technology transfer for adaptation

This section will be presented under another chapter, rather than V&A. It will be under the “other information” chapter of SNC. The reporting under this section will consist on information on:

- How country is addressing activities relating to transfer of, and access to environmentally sound technologies and know-how related to adaptation;
- Building and development of national/local adaptive capacities, know-how, measures to enable environment for transferring of adaptive technologies;
- Indicate whether a needs assessment has been made or/and updated.

7. Job descriptions

7.1 Team Leader for V&A

Duration:	3 years
Type of engagement:	Part-time
Entry on duty:	Ass soon as possible
Duty station:	Tirana

For performing the work under the V&A in the frame of the above project, a team of experts need to be set up and a leader to manage the team is needed to be hired. The V&A team leader should work under the overall guidance and supervision of the Climate Change Program Manager. Specifically, his\her responsibilities are but not limited to the following:

- Assists the PM in establishing the team of experts for performing the V&A on the basis of the roster of experts;
- Provide technical backstopping ti the PM regarding V&A issues.
- Provide technical guidance to the team of experts and coordinate their work for compilation of the final output.
- Prepares a detailed work-plan for V&A on the basis of the overall project work plan
- Provides periodic progress report to the NPM on the V&A thematic area
- Develops the scope of work and respective terms of reference for the team members;
- Leads the data and information collection process for performing the V&A study.
- In consultation with NPM decide on approaches (not concluded under stocktaking phase) to be used if necessary;
- Organize the scheduled consultations/workshops and ensure their success;
- Ensures synergy with other relevant projects
- Ensure the timely and effective management of the activities as scheduled;
- Drafts the V&A Report and respective chapter of Albania's SNC along with the respective part of executive summary
- Provide the report to the review team for comments
- Incorporates comments received from the review process.
- Oversees the documentation of the studies made and archiving of the worksheets and other related information

Qualifications and experience

- An advanced degree in energy, environmental management or other field relevant to the project;
- A minimum of 7 years of working experience in the area relevant to the Climate Change;
- Substantial involvement in the preparation of the initial National Communication is mandatory (V&A);
- Good understanding of climate change and sustainable development issues;
- Demonstrated ability of analytical and drafting work;
- Demonstrable knowledge of IPCC 1994, MAGIC / SCHENGEN etc.
- Familiarity with computers and word processing;
- Fluency in English;

7.2 Expert on climatology

Duration:	3 years
Type of engagement:	Part-time
Entry on duty:	Ass soon as possible
Duty station:	Tirana

The specialist on climatology should work in consultation with and under the technical guidance of the Team Leader and supervision of the PM. Specifically, his\her responsibilities are but not limited to the following:

- Reviews existing information (studies/projects and policies since INC) that relate to vulnerability, as well as studies or analysis on natural hazard
- Draft national circumstances section that would be respectively relevant to climate condition
- Identifies data and information needs relevant to climate for V&A assessment in the area
- In consultation with TL and other experts decides on approaches (climate hazard approach or vulnerability based approach) to be used
- Identify relevant forms of adaptation in cooperation with experts of other fields.
- Review existing information on estimates of abatement costs for extreme event damages (e.g. cost of damages-if any)
- Identifies the current vulnerability through:
 - Analysis of climate variability and extremes, hazards in the area
 - Establishing a climatic baseline
 - Updating the climate change scenarios (by using the new version of MAGICC/SCENGEN) to assess the climate trends
 - Assessing the expected impact in considered sectors (in cooperation with experts of other fields)
- Evaluates the expected impact/vulnerabilities through:
- Elaborates adaptation measures for climate sector through:
 - Establishing the criteria to evaluate the adaptation measures (in cooperation with experts of other fields)
 - Assessing the adaptation measures for climate, priority measures, barriers
- Collect, synthesize and provide information on the research and systematic observation systems (climate monitoring, environmental monitoring) and on relevant ongoing projects.
- Prepares the respective chapters of the periodic progress reports on the V&A
- Assists the Team Leader in drafting of V&A report

Qualifications and experience

- An advanced degree in climatology/ physics.
- A minimum of 7 years of working experience in the area relevant to the Climate Change;
- Substantial involvement in the preparation of the initial National Communication is mandatory (V&A);
- Good understanding of climate change and sustainable development issues;
- Demonstrated ability of analytical and drafting work;
- Familiarity with computers and word processing;
- Fluency in English;

7.3 Expert on hydrology

Duration:	3 years
Type of engagement:	Part-time
Entry on duty:	Ass soon as possible
Duty station:	Tirana

The specialist on hydrology should work in consultation with and under the guidance of the Team Leader and supervision of the PM. Specifically, his\her responsibilities are but not limited to the following:

- Reviews existing information (studies/projects and policies since INC) that relate to climate vulnerability, as well as studies or analysis on natural hazard
- Draft national circumstances section that would be respectively relevant to water resources
- Identifies data and information needs relevant to water resources for V&A assessment in the area
- In consultation with TL and other experts decides on approaches (climate hazard approach or vulnerability based approach) to be used
- Identify relevant forms of adaptation in cooperation with experts of other fields.
- Review existing information on estimates of abatement costs for extreme event damages (e.g. cost of damages-if any) Identifies the current vulnerability through:
 - Analysis of impact of climate variability and extremes, hazards in the area
 - Establishing a hydrologic baseline
 - Assessing the impact of expected climate changes in water resources (in cooperation with expert in climatology)
- Evaluates the expected impact/vulnerabilities through:
 - Establishing the criteria to evaluate the adaptation measures (in cooperation with experts of other fields)
 - Assessing the adaptation measures for hydrology, priority measures, barriers
- Elaborates adaptation measures for water resources through:
- Collect, synthesize and provide information on the research and systematic observation systems (hydrologic monitoring, environmental monitoring) and on relevant ongoing projects.
- Prepares the respective chapters of the periodic progress reports on the V&A
- Assists the Team Leader in drafting of V&A report

Qualifications and experience

- An advanced degree in hydrology;
- A minimum of 7 years of working experience in the area relevant to the Climate Change;
- Substantial involvement in the preparation of the initial National Communication is mandatory (V&A);
- Good understanding of climate change and sustainable development issues;
- Demonstrated ability of analytical and drafting work;
- Familiarity with computers and word processing;
- Fluency in English;

7.4 Expert on agriculture and livestock

Duration:	3 years
Type of engagement:	Part-time
Entry on duty:	Ass soon as possible
Duty station:	Tirana

The specialist on agriculture should work in consultation with and under the guidance of the Team Leader and supervision of the PM. Specifically, his\her responsibilities are but not limited to the following:

- Reviews existing information (studies/projects and policies since INC) that relate to climate vulnerability in agriculture and livestock, as well as studies or analysis on natural hazard
- Draft national circumstances section that would be respectively relevant to agriculture and livestock
- Identifies data and information needs relevant to mentioned sectors for V&A assessment in the area
- In consultation with TL and other experts decides on approaches (climate hazard approach or vulnerability based approach) to be used
- Identify relevant forms of adaptation in agriculture and livestock sectors (in cooperation with experts of other fields).
- Review existing information on estimates of abatement costs for extreme event damages (e.g. cost of damages-if any)
- Identifies the current vulnerability through:
 - Analysis of impact of climate variability and extremes, hazards in the area
 - Establishing a baseline agricultural production
 - Assessing the impact of expected climate changes (in cooperation with expert in climatology)
- Evaluates the expected impact/vulnerabilities in agriculture and livestock sectors through:
 - Establishing the criteria to evaluate the adaptation measures (in cooperation with experts of other fields)
 - Assessing the adaptation measures for agriculture and livestock , priority measures, barriers
- Elaborates adaptation measures for agriculture and livestock through:
- Collect, synthesize and provide information on the research and systematic observation systems and on relevant ongoing projects.
- Prepares the respective chapters of the periodic progress reports on the V&A
- Assists the Team Leader in drafting of V&A report

Qualifications and experience

- An advanced degree in agriculture;
- A minimum of 7 years of working experience in the area relevant to the Climate Change;
- Substantial involvement in the preparation of the initial National Communication is mandatory (V&A);
- Good understanding of climate change and sustainable development issues;
- Demonstrated ability of analytical and drafting work;
- Familiarity with computers and word processing;
- Fluency in English;

7.5 Expert on energy

Duration:	3 years
Type of engagement:	Part-time
Entry on duty:	Ass soon as possible
Duty station:	Tirana

The specialist in energy sector should work in consultation with and under the guidance of the Team Leader and supervision of the PM. Specifically, his\her responsibilities are but not limited to the following:

- Reviews existing information (studies/projects and policies since INC) that relate to climate vulnerability in energy sector
- Analyzes impact of current natural hazard in energy sector
- Drafts national circumstances section that (evaluation of electricity generation from existing and new hydro and thermal power plants)
- Assesses the energy demand for every sector in the area (in cooperation with experts of other fields)
- In consultation with TL and other experts decides on approaches (climate hazard approach or vulnerability based approach) to be used
- Identify relevant forms of adaptation in energy sector in cooperation with experts of other fields (esp. climatology and hydrology).
- Review existing information on estimates of abatement costs for climatic extreme event damages in energy (e.g. cost of damages-if any)
- Identifies the current climate vulnerability in energy through:
 - Analysis of impact of climate variability and extremes, hazards in the area
 - Establishing a energy baseline
- Evaluates the expected impact/vulnerabilities through:
 - Assessing the impact of expected climate changes in energy (in cooperation with expert in climatology and hydrology)
- Elaborates adaptation measures for energy sector through:
 - Establishing the criteria to evaluate the adaptation measures (in cooperation with experts of other fields)
 - Assessing the adaptation measures for energy, priority measures, barriers
- Collect, synthesize and provide information on the research and systematic observation systems and on relevant ongoing projects.
- Prepares the respective chapters of the periodic progress reports on the V&A
- Assists the Team Leader in drafting of V&A report

Qualifications and experience

- An advanced degree in energy;
- A minimum of 7 years of working experience in the area relevant to the Climate Change;
- Substantial involvement in the preparation of the initial National Communication is mandatory (V&A);
- Good understanding of climate change and sustainable development issues;
- Demonstrated ability of analytical and drafting work;
- Familiarity with computers and word processing;
- Fluency in English;

7.6 Expert on tourism, population, settlement

Duration:	3 years
Type of engagement:	Part-time
Entry on duty:	Ass soon as possible
Duty station:	Tirana

The specialist in tourism, population, settlement should work in consultation with and under the guidance of the Team Leader and supervision of the PM. Specifically, his\her responsibilities are but not limited to the following:

- Reviews existing information (studies/projects and policies since INC) related to climate vulnerability on the respective sectors, as well as studies or analysis on natural hazard
- Draft national circumstances section relevant to tourism, population, settlement issues
- Identifies data and information needs for V&A assessment in the area
- In consultation with TL and other experts decides on approaches (climate hazard approach or vulnerability based approach) to be used.
- Identify relevant forms of adaptation in cooperation with experts of other fields.
- Review existing information on estimates of abatement costs for extreme event damages (e.g. cost of damages-if any)
- Identifies the current climate vulnerability through:
 - Analysis of impact of climate variability and extremes, hazards in the area
 - Establishing a social development baseline
- Evaluates the expected impact/vulnerabilities in respective sectors through:
 - Assessing the impact of expected climate changes (in cooperation with expert in climatology)
 - Establishing the criteria to evaluate the adaptation measures (in cooperation with experts of other fields)
- Elaborates adaptation measures for tourism, population, settlement through:
 - Assessing the adaptation measures, priority measures, barriers
- Collect, synthesize and provide information on the research and systematic observation systems and on relevant ongoing projects.
- Prepares the respective chapters of the periodic progress reports on the V&A
- Assists the Team Leader in drafting of V&A report

Qualifications and experience

- An advanced degree in hydrology;
- A minimum of 7 years of working experience in the area relevant to the Climate Change;
- Substantial involvement in the preparation of the initial National Communication is mandatory (V&A);
- Good understanding of climate change and sustainable development issues;
- Demonstrated ability of analytical and drafting work;
- Familiarity with computers and word processing;
- Fluency in English;

7.7 Expert on forestry

Duration:	3 years
Type of engagement:	Part-time
Entry on duty:	Ass soon as possible
Duty station:	Tirana

The specialist in forestry should work in consultation with and under the guidance of the Team Leader and supervision of the National Project Manager. Specifically, his\her responsibilities are but not limited to the following:

- Reviews existing information (studies/projects and policies since INC) related to climate vulnerability on the forestry and silviculture, as well as studies or analysis on natural hazard
- Draft national circumstances section relevant to forestry and silviculture issues
- Identifies data and information needs for V&A assessment in the area
- In consultation with TL and other experts decides on approaches (climate hazard approach or vulnerability based approach) to be used.
- Identify relevant forms of adaptation in cooperation with experts of other fields.
- Review existing information on estimates of abatement costs for extreme event damages (e.g. cost of damages-if any)
- Evaluates the expected impact/vulnerabilities in respective sectors through:
 - Analysis of impact of climate variability and extremes, hazards in the area
 - Establishing a social development baseline
- Identifies the current climate vulnerability forestry and silviculture through:
 - Assessing the impact of expected climate changes (in cooperation with expert in climatology)
- Elaborates adaptation measures in forestry and through:
 - Establishing the criteria to evaluate the adaptation measures (in cooperation with experts of other fields)
 - Assessing the adaptation measures, priority measures, barriers
- Collect, synthesize and provide information on the research and systematic observation systems and on relevant ongoing projects.
- Prepares the respective chapters of the periodic progress reports on the V&A
- Assists the Team Leader in drafting of V&A report

Qualifications and experience

- An advanced degree in forestry;
- A minimum of 7 years of working experience in the area relevant to the Climate Change;
- Substantial involvement in the preparation of the initial National Communication is mandatory (V&A);
- Good understanding of climate change and sustainable development issues;
- Demonstrated ability of analytical and drafting work;
- Familiarity with computers and word processing;
- Fluency in English;

8. Reference materials and web links:

8.1 General guidance materials:

- UNDP-GEF Project Document: "Enabling activities for the preparation of Albania's second national communication to the UNFCCC". 2005; <http://www.ccalb.org>
- UNFCCC secretariat. Reporting on climate change. User manual for the guidelines on national communications from non-Annex I parties. November 2003; <http://www.unfccc.int>

8.2 Methods and tools for vulnerability and adaptation assessments:

- The UNEP Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies (Feenstra, J.F., I. Burton, J.B. Smith, R.S.J. Tol, 1998); <http://130.37.129.100/IVM/research/climatechange/Handbook.htm>
- Vulnerability and Adaptation Assessments: An International Handbook on (Benioff, R., S. Guill, J. Lee, 1996); http://www.neutrino.co.jp/abi_enst/0-7923-4140-6.PDF
- An Adaptation Policy Framework: Capacity Building for Stage II Adaptation (UNDP-GEF, 2000); <http://www.undp.org/cc/apf.htm>
- Methodologies and Tools to Evaluate Strategies for Adaptation to Climate Change (UNFCCC, 2000) <http://unfccc.int/program/mis/meth/compendium.pdf>
- PRECIS <http://www.metoffice.com/research/hadleycentre/models/PRECIS.html>
- Toolkit for Vulnerability and Adaptation Assessment (T. Downing); http://www.aiaccproject.org/resources/ele_lib_docs/Toolkit_VAA.pdf
- Integrated modelling system for climate change impact and adaptation assessment (IGCI) <http://www.waikato.ac.nz/igci/modelling/modelling1.html>
- <http://www.unisdr.org/>
- Guidelines for the preparation of national adaptation programmes of action <http://unfccc.int/text/program/sd/lcd/documents/13a04p7.pdf>
- Annotated guidelines for the preparation of national adaptation programmes of action
- <http://unfccc.int/text/program/sd/lcd/documents/annguide.pdf>

8.3 Baseline climatologist and climate change scenarios

- High-resolution Climate Grids Prepared by the Climatic Research Unit and the Tyndall Centre for Climate Change Research, University of East Anglia; <http://www.cru.uea.ac.uk/cru/data/hrg.htm>
- Baseline Climate Datasets and Outputs of General Circulation Models (GCMs) Provided by the IPCC Data Distribution Centre; <http://ipcc-ddc.cru.uea.ac.uk>

- Guidelines on the Use of Scenario Data for Climate Impact and Adaptation Assessment (Carter, T.R., Parry, M. L., Harasawa, H., Nishioka, S. 1999);
http://www.aiaccproject.org/resources/ele_lib_docs/TGCIAGuidance_99.pdf
- MAGICC/SCENGEN; <http://www.cgd.ucar.edu/cas/ACACIA/publications/magicc.html>
- MAGICC/SCENGEN Workbook (M. Hulme et al., 2000);
http://www.aiaccproject.org/resources/ele_lib_docs/magicc_scengen_workbook.pdf
- Statistical DownScaling Model (SDSM): A Decision Support Tool for Assessing Regional Climate Change Impacts (R. Wilby et al., 2001);
http://www.aiaccproject.org/resources/ele_lib_docs/SDSM_manual.pdf

8.4 Socio-economic Scenarios

- Guidance Materials on Spatially Distributed Socio-economic Projections of Population and GDP per Unit Area (S. Gaffin, G. Yerman., A. Mellinger. CIESIN, 2002);
http://www.aiaccproject.org/resources/ele_lib_docs/GM_Gridded.pdf

9. Working plan/ schedule of activities (Q-three monthly period)

Outputs/Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Implementation arrangements and project inception:												
1. Contract the project office staff	X											
2. Establish technical teams	X											
4.1: National circumstances												
1. Validate the gaps of information identified under stocktaking	X	X										
2. Identify the respective sources of information	X	X										
3. Collect data and information from different sources	X	X	X	X	X							
4. Fill the gaps, update and add the new information		X	X	X	X							
5. Draft national circumstances sections relevant to each thematic area.						X	X	X				
6. Draft the National Circumstances section under the SNC								X	X			
7. Circulate the National Circumstances section for comment, get comments.									X			
8. Finalize the National Circumstances section under the SNC										X		
4.4. Programs containing measures to facilitate adequate adaptation to climate change												
Output 4.4.1: Specific approaches, tools and methods to be used under APF decided. Pertinent data and information assembled, analyzed, and synthesized.												
1. Decide on the range of the assessment:, approaches, tools and methods		X										
2. Identify the type and scope of data and information needed		X										
3. Review the policy process and development context for the selected area		X										
4. Collect and synthesize the necessary data and information.		X	X	X								
Output 4.4.2: Current vulnerability and adaptation of the priority area assessed												
1. Develop respective indicators for baseline development			X									
2. Access any previous adaptation experience under priority area, if available baseline for the priority area			X									
3. Develop an environmental-socio-economic baseline			X	X								
4. Access current vulnerability of climate and sectors under the priority area			X	X								
5. Access any previous adaptation experience under priority area, if available												
Output 4.4.3: Future climate risk and adaptation measures assessed for the priority area. A policy paper for adaptation for the Drini River Cascade developed												
1. Develop climate trends and risks			X	X								
2. Develop environmental-socio-economic trends and risks			X	X								
3. Develop adaptation response measures				X	X							
4. Compile an Adaptation Policy Paper of Drini Cascade					X	X						
Output 4.4.4: Chapter of Vulnerability and Adaptation (V&A) for the priority system completed												
1. Develop the draft chapter of the V&A							X					
2. Circulate the draft chapter of V&A for internal review and comments.								X				
3. Circulate the draft chapter of V&A for external peer review and comments								X				
4. Receive comments and reflect to the document								X	X			
6. Finalize the V&A chapter to be submitted as a part of the SNC									X			
7. Archive and document all the V&A related studies and							X	X	X	X		

Outputs/Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
estimates												
4.6. Other information considered relevant to the achievement of the objective of the Convention												
Collect, synthesize and provide information on the research and systematic observation systems			X	X	X	X						
Collect, synthesize and provide information on relevant ongoing projects						X	X					

10. Terms of payment

Each team member will be paid according to the following schedule of payments upon delivery of the draft V&A reports, as specified under the TORs and in accordance of Working Plan, object of satisfactory performance certified by the Program Manager.

The V&A final report might be object of the peer review, if provided by the UNDP-GEF National Communication Support Program.

Position	First year	First Year (detailed in Quarters)				Second Year ⁶	Third year ⁷	Budget Total
		Q1	Q2	Q3	Q4			
	15/6/05-15/5/06	15/6/05 - 15/9/05	15/9/05-15/12/05	15/12/05-15/3/06	15/3/06-15/5/06	15/6/06-15/6/07	15/6/07-15/6/08	
Team Leader	2,000	0	1,000	0	1,000	4,000	3,000	9,000
Energy Expert	1,000	0	500	0	500	1,000	1,000	3,000
Climate Expert	1,000	0	500	0	500	1,000	1,500	3,500
Hydrological Expert	1,000	0	500	0	500	750	750	2,500
Population Expert	1,000	0	500	0	500	750	750	2,500
Forestry Expert	1,000	0	500	0	500	1,000	500	2,500
Agriculture Expert	1,000	0	500	0	500	750	750	2,500
Total V&A	8,000	0	4,000	0	4,000	8,750		25,500

⁶ The budget breakdown for the second year is object of disagration of figures in the course of Quarters (the same as First year of the project)

⁷ The budget breakdown for the third year is object of disagration of figures in the course of Quarters (the same as First year of the project)

11. List of deliverables for the first year of project

At the end of the Q2 of the First year (Q4/2005) of the project the team will deliver the following items:

1. Draft report on climate trends and risks
2. Draft report on Environmental socio-economic trends and risks

At the end of the Q4 of the First year (Q2/2006) of the project will deliver the following item:

1. Draft report of the adaptation response measures for the Drini River Cascade.