

Thematic Assessment Report

under National Capacity Self Assessment Project

on

Climate Change Thematic Area

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Table of contents

Executive summary.....	5
II Albania and the UNFCCC	8
II.1 Legal framework related to climate change in Albania	9
II.2 Policy framework related to climate change in Albania.....	11
III.3 Institutional framework for dealing with climate change in Albania	12
II.4 Major commitments under the UNFCCC	12
II.4.1 Reporting to the UNFCCC through National Communications	13
II.4.1.1. National inventories of all GHGs.....	13
II.4.1.2 National policies and measures to abate GHG emissions	16
II.4.1.3 Assessment of the vulnerability and adaptation measures	18
II.4. 1.4 Public awareness and communication on climate change	21
III. Albania’s participation to the Kyoto flexible mechanisms.....	24
IV. Conclusions and recommendations	25
I. References.....	27
<i>Annex I</i>	28
<i>Annex II</i>	29
<i>Annex III</i>	31

Abbreviations

CDM	Clean Development Mechanism
CGE	Consultative Group of Experts
CoP	Conference of Parties
DNA	Designated National Authority
FNC	First National Communication
GEF	Global Environment Facility
GHG	Greenhouse Gas
INSTAT	Institute of Statistics
IPCC	Intergovernmental Panel on Climate Change
LEAP	Long-range Energy Alternatives Planning
LUCF	Land Use Change and Forestry
MDGs	Millennium Development Goals
NAP	National Action Plan
NCSP	National Communication Support Programme
NES	National Energy Strategy
NGOs	Non-governmental Organisations
SoE	State of the Environment
SNC	Second National Communication
TNA	Technology Needs Assessment
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change

Executive summary

(to be completed upon the finalization of the report)

I. Methodological approach

This report developed for the purpose of the UNDP-GEF NCSA project consist on two moments: (i) assessment of the current capacity for dealing with the UNFCCC and its Kyoto Protocol and (ii) the assessment of the capacity needs for the implementation of the UNFCCC and participation to the Kyoto Protocol Flexible mechanisms.

The *assessment of the current capacity* has been done through a stocktaking exercise which consisted in the application of the following tools: (i) in-desk review of relevant documents; (ii) discussions among relevant stakeholders; (iii) interviews with stakeholders; (v) consultative meetings and minis-workshops.

The *assessment of the capacity needs* for the purposes of this report has been done in three levels: (i) individual level, (ii) institutional level and (iii) systemic level. Capacity development at the *individual level* refers to the process of changing attitudes and behaviours, imparting knowledge and developing skills while maximizing the benefits of participation, knowledge exchange and ownership. It aims to investigate “individual” responsibilities and interests in plans and decisions including personal incentives and expertise. Capacity development at the *institutional level* focuses on the overall organizational performance and functioning capabilities of the single institution, as well as its ability to adapt to change. It also covers the specific nature of the institution, its competences and financial transparency Capacity development at the *systemic level* covers the creation of a favourable political, regulatory and financial framework, in which individuals and institutions operate.

According to the UNDP/GEF Manual (1), indicators focus on the following functions:

- general knowledge
- national policy, legal and regulatory framework
- institutional mandates, coordination and interactions,
- cooperation of stakeholders
- management of institutions
- management of information, monitoring and observation
- mobilization of scientific information to support the decision process
- financial resources and technology transfer
- incentive systems and market instruments
- negotiation skills
- capability and motivation of individuals.

The thematic assessment of capacities was on the basis of the Strategic Areas of Support organized as per the following generic indicators:

- **Capacity to conceptualize and formulate policies, legislations, strategies, and programs.** This category includes analyzing global conditions that may affect country needs and performance in a given area, developing a vision, long-term strategizing, and setting of objectives. It also includes conceptualizing broader sectoral and cross-sectoral policy, legislative and regulatory frameworks, including synergies between global environmental conventions. It further contains prioritization, planning and formulation of programs and projects.
- **Capacity to implement policies, legislations, strategies, and programs.** This category includes process management capacities that are essential in the implementation of any type of policy, legislation, strategy and program. It also includes execution aspects of program and project implementation. It includes mobilizing and managing human, material and financial resources, and selection of technologies and procurement of equipment.

- **Capacity to engage and build consensus among all stakeholders** This category includes issues such as mobilization and motivation of stakeholders, creation of partnerships, awareness-raising and developing an enabling environment for civil society and the private sector, stakeholder identification and involvement, managing of large group process and discussion, including mediation of divergent interests, as well as the establishment of collaborative mechanisms.
- **Capacity to mobilize information and knowledge.** This category pertains to the mobilization, access and use of information and knowledge. It includes issues such as effectively gathering, analyzing and synthesizing information, identifying problems and potential solutions, as well as consulting experts and peers. It further covers specific technical skills including the capacity to carry out scientific and technical assessments.
- **Capacity to monitor, evaluate, report and learn** This category pertains to the monitoring of progress, measuring of results, codification of lessons, learning and feedback, and ensuring accountability to ultimate beneficiaries and partners. It also covers aspects such as reporting to donors and global conventions.

II Albania and the UNFCCC

The United Nations Framework Convention on Climate Change (UNFCCC) sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. It recognizes that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases.

Under the UNFCCC, governments gather and share information on greenhouse gas emissions, national policies and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; cooperate in preparing for adaptation to the impacts of climate change

Albania ratified the UNFCCC in October 1994, and it entered into force on January 1, 1995. As of January 2005¹ Albania is also a Party to the Kyoto Protocol of the UNFCCC. Albania holds the status of a non-Annex I party to both these legal documents. The national focal point for UNFCCC and CDM Designated National Authority belongs to the Ministry of Environment, Forests and Water Administration of Albania.

The Government of Albania has taken considerable steps for the implementation of the UNFCCC such as preparing the First National Communication to the COP, the Technology Needs Assessment, and compiling the climate change NAP. In accordance with Article 4.3 of the UNFCCC, the Government of Albania has requested funding from the Global Environmental Facility (GEF) to assist the country in preparing its FNC. So far Albania has finalised and submitted its FNC to the CoP 8 on October 2002 and has started the preparation of the SNC after the completion of the self-assessment exercise (stocktaking). The stocktaking process spurred the generation of essential information for preparing the project proposal for the SNC, which was the main output of this exercise.

According to the FNC Albania is a relatively low net emitter of greenhouse gases, with relatively low carbon dioxide (CO₂) emissions per capita, mainly due to the fact that over 90 percent of electricity is generated by hydro-sources. The energy sector contributes more than 60 percent of total emissions. Relatively high CO₂ emissions per GDP are explained mainly due to high energy intensity. Based on the predictions for future emissions, if no GHG abatement measures are taken by 2020 total GHG emissions will be increased from 7,061.45 gig-grams (Gg) in 1994 to 37,653 Gg.

Although Albania does not have any commitments for GHG emission reduction, the NAP aims at reducing the growth rates of GHG emissions. The abatement scenario of emissions foresees the introduction and implementation of different options mainly focused on energy saving through energy efficiency measures and promotion of renewable energy sources. A tier of GHG mitigation measures for all GHG relevant sectors with a more significant focus on the energy sector has been proposed and evaluated in terms of many criteria. They consist not only of reduction potential, and cost and benefit, but also the contribution to poverty reduction and social welfare. Measures consist of thermal insulation in housing, efficient bulbs, solar thermal, LPG (cooking, heating), small hydro-power, fuel switching in industry, and others.

The future climate scenario for Albania predicts changes such as increased temperatures, decreased precipitation and reduction of water resources and arable land. The most vulnerable area is Albania's coastal zone, while the most vulnerable sectors are water

¹ Albania's Parliament adopted Law No 9334 dated Dec. 16, 2004 on "Ratification of the Kyoto Protocol

resources, agriculture energy and tourism. Future climate changes are expected to negatively impact the river flow, which in turn will affect the generation capacity of hydro-power plants. This is an issue that needs to be taken into consideration. The National Communication process has not only been considered as a tool for reporting to the UNFCCC but also for mainstreaming to national planning process and programming through the mobilization of new resources. Due to such efforts the National Energy Strategy (NES) has already integrated many findings and outputs from Albania's FNC and TNA.

II.1 Legal framework related to climate change in Albania

Albania has a strong body of laws aimed at environmental protection. According to the Constitution, every citizen in Albania is entitled to “an ecologically healthy environment for present and future generations” as well as “access to information on the state of the environment”. The Constitution also requires the “rational exploitation of forests, waters and pastures based on the principle of sustainable development”. The Law on Environmental Protection (1993, amended in 1998, 2002) forms the basis for environmental management. It addresses the prevention and reduction of pollution, sustainable management of natural resources, monitoring, how to define pollution levels. It provides binding provisions for environmental impact assessment and the implementation of the polluter pays principle.

A series of sectoral laws contain provisions for environmental protection, such as the law on water reserves, law on mining, and laws on regulatory entity of waste waters, hunting, forestry, soil, and urban planning. These are accompanied by a considerable number of normative acts.

In the context of the climate change issue, except of the laws on ratification of the UNFCCC and the Kyoto Protocol from the Albania's parliament there are no laws that address explicitly the issue of climate change. Because the energy sector emits a significant share of GHG emissions, the sector has been the focus of analysis and recommendations for climate change mitigation. In addition, the most relevant laws that relate to climate change are adopted under the energy sector. A legislative framework on energy in Albania comprises a relatively large number of different pieces of legislation at present. A more detailed analysis of the current legislation is given as follows:

- *Law on Energy Efficiency and Renewable Energy Sources* (No. 9372 of April 27, 2005)

This is the most important law for climate change in general and GHG mitigation in particular. It focuses on promoting energy efficiency and energy conservation, creation of an energy efficiency fund, energy efficiency labelling, and promoting energy audits schemes. The purpose of this law is to create the legal framework required for the promotion and improvement of the efficient use of energy throughout the energy cycle. This law establishes the economical use of energy sources, the establishment of more reliable energy supply conditions, as well as the minimisation of impact on the environment

- *Law on Power Sector* (No. 9072 of May 2003)

This law abolishes the above law. It assures the conditions of electricity supply to consumers, efficient functioning of the electricity market and adjusts the power sector to market economy condition. The overall aim of the Law on Power Sector is to enhance the economic effectiveness and the quality of services for power generation, transmission and distribution and provide a transparent and comprehensive legal framework for the mentioned activities.

- *Law on Electricity* (No. 7962 of July 1995)

This law specifies the conditions for activities in the power sector and the rights and duties of all physical and legal persons involved in one of these activities. It also regulates the relationship between consumers and suppliers in terms of their basic duties and obligations. The law provides for operational and technical management of the power network as well as for connections to the grid and measurements of electricity.

- *Law on Regulation of Power Sector* (No. 7970 of July 1995)

This law prescribes the establishment of an Energy Regulatory Body (ERE) in the power sector and defines its duties. According to this law, ERE is responsible for tariff regulation and licensing in the power sector.

- *Law on Energy Conservation in Buildings* (No. 8937 of September 2002)

This law declares that the design and construction of buildings should meet the necessary technical parameters for conservation, saving and efficient use of energy. All buildings to be constructed so as to limit thermal losses, and provides thermal insulation of buildings and central or district heating schemes.

- *Governmental Decree for Energy Building Code*

The elaboration of the Energy Building Code began in 1998 based on the NAE in collaboration with the Albania-EU EEC and the other institutions of the sector. The Governmental Decree No. 38 of January 2003 approved it as the Norms, Rules and Conditions for Design and Construction, Production and Conservation of Heat in Buildings.

- *Governmental Decree for Strategy of Energy* (No. 424 of June 2003)

This governmental decree approves the National Strategy of Energy until 2015. According to the decree, the Ministry of Industry and Energy and the NAE are appointed to update this strategy every two years.

- *Law on Electrical Police* (No. 8637 of July 2000)

Based on this law, a specialised executive body for controlling the enforcement of legislation and use of electricity —the Electrical Police — was established. The purpose of such a structure is to monitor and punish abuses in the power sector, particularly with electricity consumption

There are other Laws that are relevant to the process of the GHG abatement technology transfer to the country. They are as follows:

- *Law on Foreign Investment:*

The Law covers any kind of foreign investment in Albania and specifies basic conditions for promotion and protection of foreign investments in Albania. The Law provides for non-discriminatory treatment, full protection and dispute settlement in accordance with international standards. According to Article 2 of the Law on Foreign Investment no foreign investments are made prior to authorization. In addition the foreign investor has the rights to employ foreign citizens and to transfer all assets that are related to foreign investments out of the territory of Albania. A limitation to foreign investors is only imposed with respect to land ownership rights. Generally the Albanian Law on Foreign Investment is a tool that creates highly favorable conditions for the promotion of foreign investment.

- *Law on Concession:*

The Law defines the legal basis for domestic and private sector participation in the provision of public services and infrastructure through concessions and other arrangements (leasing, management contract, service contract, and so forth). Among other sectors of economy, the law covers also the whole energy sector.

- *Law on Free Zones:*

This Law assumes the creation of the free zones in which the investors are exempted from duties and taxes.

II.2 Policy framework related to climate change in Albania

Following the first National Environmental Strategy produced in 1993 with the assistance of World Bank and the National Environmental Action Plan finalized in 2002 and produced with the assistance of both PHARE and World Bank, the Ministry of Environment, Forestry and Water Management assisted by EU CARDS Program has very recently produced the second National Environmental Strategy (NES) which is still at the draft phase awaiting approval. It is expected to be published by early 2007. The National Environmental Strategy (once approved) will be the basic document presenting the Government's policy and specific programs in the environmental sector. The NES is part of the National Strategy for Socio-Economic Development and it is based upon National Plan for the EU Approximation of the Legislation, National Action Plan for the Implementation of the European Partnership Priorities and the existing sectoral strategies such as the ones on Transport, Agriculture, and Energy. The issue of climate change is addressed into that draft strategy through recommendations for the reduction of the growth rates of GHG emissions.

The analysis of the political framework relevant to the climate change mitigation lays also on energy sector due to its significant role towards emissions and potential for the reduction as well. A National Strategy for Energy has been drafted and approved in June 2003 by the Government of Albania according to Decision of the Council of Ministers, No. 424 dated. 26.06.2003. The National Energy Strategy *aims* at the restructuring the energy sector based on market economy principles and developing a modern energy policy. A detailed plan of action also adopted on 19 September 2003 by the Albanian Government follows this strategy.

The strategy for the development of energy sector is an essential part of the NSSD. The Energy Strategy considers the country obligations in the framework of the Regional Electricity Market in South East European countries, and international environmental conventions that Albania is a Party to, as well as the harmonization and converging of the energy sector development according to EU Directives for the association of Albania in the European family.

The strategy for the development of energy sector is a document that analyses and recommends the future changes, by the year 2015 that must be undertaken in the Republic of Albania, in order to increase the security of the energy supply and the optimization of the energy resources to meet the demand and achieve the sustainable development. It is the first national strategy, which address explicitly the environmental issues like greenhouse gas emissions and urban air emissions. Addressing the recommendations provided for the energy sector under the Albania's FNC is considered as a significant progress in mainstreaming the global environmental concerns into national sectoral planning and policy. This strategy is considered as an expression of the national demands which provides a sustainable development of the whole national economy and achieves in the meantime, the environmental protection during the whole cycle of the energy sources utilization.

The strategy is subject of the regular revision and update. In this context the process of the revision and update of the National Energy Strategy has begun.

III.3 Institutional framework for dealing with climate change in Albania

The national focal point for UNFCCC and the responsibility of the CDM Designated National Authority belongs to the Ministry of Environment, Forests and Water Administration of Albania through its Climate Change Unit.

At the start of the project in 1998, a Climate Change Unit was established in the Ministry of Environment (which has currently merged into the Ministry of Environment, Forests and Water Administration). This office serves not only for the UNDP/GEF project implementation but is responsible for the implementation process of the UNFCCC and Kyoto Protocol, specifically the operation of the DNA.

The **Climate Change Unit** at the Ministry of Environment, Forestry and Water Administration is staffed with 4 full time employees who, in addition involves 10 nationals hired in ad-hoc basis. The Unit is funded mainly by UNDP-GEF. Other contributions are mobilized every year in the form of co-financing, parallel financing or in kind. The contribution received from the Government from the state budget is getting increased every year. The Unit has three core technical teams, specifically GHG inventory; GHG mitigation and Vulnerability and Adaptation Team. The Team of GHG mitigation has started getting involved in the CDM exercise with the intention to build the appropriate capacities for identification, developing, and hosting CDM projects in Albania. A significant role on this regard has played the Ministry of Environment and Territory of Italy in the frame of the MOU signed under the Kyoto Protocol.

This Climate Change Unit collaborates with an inter-disciplinary and inter-institutional technical team with experts and representatives of other ministries and research institutions that carry out the duties stemming from the membership of the country of the Framework Convention on Climate Change².

A Programme Steering Committee has also been established which oversees all projects and activities within the framework of the UNFCCC. This informal committee includes high-level participants from all major government and non-government stakeholders. A technical level national climate change team with three thematic working groups (on GHG emission inventories, GHG abatement measures and vulnerability and adaptation) has been established.

II.4 Major commitments under the UNFCCC

The ultimate objective of the UNFCCC is to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate. By becoming a party to the UNFCCC, Albania has accepted a number of commitments which include, *inter alia*, to:

- develop, periodically update, publish and make national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol available to the COP;
- formulate, implement, publish and regularly update national and — where appropriate — regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not

² The Climate Change Unit has three groups of experts (Vulnerability, Abatement, and Inventory).

- controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change; and
- communicate information related to implementation of the UNFCCC to the COP, in accordance with Article 12.

II.4.1 Reporting to the UNFCCC through National Communications

Having the status of the non-Annex I country, Albania has accepted the commitment to produce national communications to the Conference of the Parties (COP) of the UNFCCC. Albania has lacked the financial resources to fulfil its obligation as a non-Annex 1 country of the UNFCCC and Kyoto Protocol to prepare national communications to the COP. This has prompted the government of Albania to request assistance from UNDP/GEF, which was made available in 1998 through the project Enabling Albania to prepare its FNC to the CoP of the UNFCCC, and in 2004 through the Enabling Albania to prepare its SCN to the CoP of the UNFCCC project.

The preparation of Albania's FNC was the first accomplishment of the Government of Albania towards the COP. It was officially submitted to the UNFCCC secretariat in September 2002 and launched in November 2002 at COP 8 in New Delhi, India.

After the completion of the FNC, Albania secured "add-on" support from UNDP/GEF. Through this project, the climate change team that prepared the FNC prepared the TNA which provides a self-assessment of the national needs for both types of technologies: GHG abatement technologies and adaptation technologies. The above assessment consists of the prioritising of key abatement and adaptation technologies for GHG relevant sectors and coastal zones, under a set of evaluation criteria agreed by experts and stakeholders consulted. After the selection of key technologies, a package of project proposals addressing each selected technology option has been developed.

II.4.1.1 National inventories of all GHGs

The first GHG emission inventory by sources and sinks for Albania is performed under the Albania's FNC project, Enabling Albania to prepare its FNC to the COP of the UNFCCC, which started in 1998 and was finalised in 2001.

The lead agency³ responsible for preparing the GHG inventory preparation is the Climate Change Unit/Programme, which relies on the responsibility of the Ministry of Environment of Albania. The Unit/Programme was established in 1998 when the GEF provided funds for the FNC. As the UNFCCC focal point, this unit is responsible for the implementation of the UNFCCC. To date, the unit/programme has mainly taken a project-based approach.⁴

Albania's first GHG inventory covers all sources and sinks as well as all gases as mandated by the respective Decision of the Conference of the Parties of the UNFCCC. Albania's first GHG inventory considers five main modules — energy, industrial processes, agriculture, waste and LUCF — as guided by the Intergovernmental Panel on Climate Change (IPCC), revised in 1996. Solvents are considered as well. The national inventory considers three direct GHGs such as: CO₂, CH₄ and N₂O and three indirect GHGs such as: CO, NO_x, and non-methane volatile organic compounds (NMVOC).

³ The designation "lead agency" implies that the agency has overall responsibility for the inventory and that the agency carried out most, or all, of the following duties: coordination/compilation of the national inventory; archiving of relevant national data; periodic updating of the inventory; documentation of the selection process for national activity data, emission factors and other conversion factors; documentation of methods and assumptions used; validation of conversion units and other data; verification of inventory estimates; compilation of the inventory report; and reporting to international bodies.

⁴ For more information visit the national climate change homepage: <www.ccalb.org>.

Estimates of key sources⁵ are provided as well. Also aggregated GHG emissions and removals expressed in CO₂ equivalent are provided. In addition, indicators such as CO₂/GDP and CO₂/capita are estimated mainly for comparability purposes. Estimates for Albania's first national GHG inventory are made for the base year 1994. Time series (1990-1994) are used only for the category of CO₂ emissions from fuel combustion.

The estimates of GHG emissions and sinks are performed according to the 1996 revised IPCC Guidelines. In addition, the IPCC Good Practice Guidance is used for the uncertainty assessment⁶ and key source estimates. The solvent category follows the Co-ordinated Information on the Environment in the European Community (CORINAIR). The methods elaborated for Albania's GHG inventory were labelled "Tier 1" and "Tier 2." Emissions of carbon dioxide released from energy and transport are estimated through two approaches: the top-down and bottom-up approach.

All activity data concerning each sector are national. The main activity data source/provider is the Institute of Statistics (INSTAT), although it does not provide activity data for GHG inventory purposes according to the IPCC nominations. Other Data providers/sources are the National Agency of Energy, Ministry of Environment, Ministry of Energy and Industry, Ministry of Transport, the National Directorate of Forestry, Taxation Department, Customer Offices and different databases, surveys and studies prepared by international organisations (e.g. the World Bank, UNDP, EBRD, and EIB), universities and different NGOs. As regards emission factors, in most cases they represent default factors provided by the IPCC 1996 Revised Guidelines. An exception is made in two cases only: emissions released from fuel consumption in small industrial boilers and emissions from burning of fuel wood in household stoves. Most of the emission factors used in estimates do not reflect the Albanian situation.

The major technical constraints faced by the GHG inventory process is related to the activity data gaps and use of IPCC default emission factors that do not reflect the country situation.

Activity data gaps identified for Albania's first GHG inventory are mainly related to the availability of data (disaggregated activity data or inconsistency with the IPCC format) and their variability after the 1990s. In most cases, activity data reported were in an aggregated form or inconsistent with the IPCC format, which made estimating emissions exceedingly difficult. Most of the activity data are characterised for their variability after the 1990s, when the country entered a period of rapid development. In the course of these years, sectors like transport, agriculture, industry and waste, underwent drastic change. In addition, the problem of data gaps becomes significant in those cases when the missing ones are key sources, such as mobile combustion, enteric fermentation, fuel combustion in industry, fuel wood burned for energy purposes, and solid waste treatment.

The overall uncertainty estimated for Albania's first GHG inventory was 17.03 percent,⁷ of which the CO₂ equivalent emissions from fuel wood contribute 79.23 percent. This comes especially from the large degree of uncertainty of activity data for this subcategory (especially from fuel wood self-collected from rural areas).

Attempts to improve the quality of the GHG inventory started on June 2002 through the UNDP-GEF regional project Building Capacities to Improve the Quality of the GHG inventories in East Europe and CIS. The goal of this project is to build on the inventory work undertaken for the first FNC in preparation for SNC, aimed at creating sustainable technical and institutional capacity. The progress

⁵ A key source category is one that is prioritised within the national inventory system because its estimate has a significant influence on a country's total inventory of direct GHGs, in terms of the absolute emissions level and trend.

⁶ The Monte Carlo method is used for uncertainty estimates.

⁷ The combined uncertainty reported under Albania's FNC is found to be higher (19 percent). The above value of 17.03 percent is a corrected one estimated after the peer reviews of the GHG inventory.

made so far under this project consists of strengthening national arrangements for compiling, archiving, updating and managing GHG inventories.

Albania's system of GHG inventory is under the process of documentation. A national inventory report along with the manual of procedures has been drafted. The archiving of data and estimates is under way. A national strategy aimed at improving the quality of GHG inventories has been drafted. The strategy focuses on activity data collection and identification of methods/approaches for reducing the gaps.

A plan that can be put into place for SNC has been developed. It consists of the development of a methodology for filling in gaps, and would be implemented during the SNC's preparation. Survey method stands at the heart of the methodology for filling the activity data gaps for those categories which do not exist.

The second GHG inventory will be done under the project Enabling Albania to prepare its SNC to the COP of the UNFCCC. The project started in March 2005 and is expected to last three years. The GHG inventory will be carried out according of the new UNFCCC guidelines, specifically those adopted by the 8th session of the CoP of the UNFCCC (17/CP8) on National Communication from non-Annex I countries. Albania's second national GHG inventory will cover all sources and sinks as well as all gases as mandated by 17/CP8. Therefore it will consider three direct GHGs: CO_2 , CH_4 and N_2O and other indirect GHGs such as: CO , NO_x , SO_x and $NM VOC$. In addition, estimates of $HFCs$, $PFCs$ and SF_6 will be provided, not reported under the Albania's FNC. Emissions released from *bunker fuels* will be estimated and reported separately as instructed by the guidelines. Estimates of the *key sources*, *sensitivity analysis* and *uncertainty level* will be provided. The second GHG inventory will report on estimates of aggregated GHG emissions and removals expressed in CO_2 equivalent. In addition, indicators such as CO_2/GDP and $CO_2/Capita$ would be estimated mainly for comparability purposes.

Estimates for Albania's second national GHG inventory shall be made for the *base year 2000*. Re-estimates for the year 1994 will be made as well. Given the variability of activity data after '90s the team has agreed to develop *time series for a 10-year time frame* (1994-2000) in order to provide a clear view of the emission trends. This will also create a clear background for the abatement analysis. A special attention will be given to the key source categories and a sensitivity analysis is needed to be done in order to see how / whether the key sources have changed. Therefore priority will be given to the key source categories such as *enteric fermentation* [22%]; *fuel wood burned for energy purposes* [21%]; *fuel combustion in industry* [14%]; *fuel combustion in transport* [11%], waste [4%] which totally make around 72 %.

Improved estimates of GHG emissions are expected mainly due to the majority of outputs of the GEF regional project on GHG inventories. *Soft methodology* for filling the activity data gaps that do not exist already developed under the GEF regional project on GHG inventories will be utilized under SNC phase. This will be critical for the implementation of the GHG inventory improvement strategy, already drafted under the above project. In addition, the Quality Assurance/Quality Control (QA/QC) plan drafted under the regional project will be implemented as well.

As regards *emission factors*, in most of the cases default factors provided by IPCC 1996 Revised Guidelines will be used. The team will see the possibility to use Emission factors calculated under other studies / projects/ programs like the case of industrial boilers or wood stoves. In addition, Emission Factor Database will be visited to see if appropriate factors relevant to our circumstances are provided. Also regional Emission Factors that are or will be developed under the GEF regional project on GHG inventories will be utilized if appropriate.

All the new input data utilized along with emission estimates will be *archived* using the same format as for the first inventory archive done under the GEF regional project on GHG inventories. Also the *Manual of Procedures* and *National Inventory Report* developed under the above project will be updated in the same line.

II.4.1.2 National policies and measures to abate GHG emissions

The first GHG emission abatement analysis for Albania is performed in the frame of Albania's FNC. This analysis consists of developing two GHG scenarios: a GHG baseline scenario and a GHG abatement scenario. Projections for Albania's GHG abatement are made for 1994-2020. Projections of GHG emissions performed for Albania are sector-specific. They are built up for all GHG source categories: energy and transport; LUCF; agriculture; waste; industrial processes and solvents. The development of both scenarios was made by utilizing a number of assumptions based on the macro-economic projections of the country as a whole, as well as in the development plans of the economic sectors taken in particular.

Given that the baseline GHG emissions scenario forecasts the most significant share of CO₂ emissions [83 percent] will be released from energy and transport activities, the team decided to analyse the energy and transport sectors in detail, i.e. quantitatively, and not simply qualitatively, as the other sectors.

The abatement GHG emissions scenario combines the emissions in the baseline scenario (reference scenario) with the changes (i.e. reductions) in emissions introduced by various abatement options being evaluated. The selection of measures for the energy and transport sectors was made taking into account the actual situation of the energy sector in Albania, as well as key sources of GHG emissions and reference scenarios of GHG emissions for the energy and transport sectors.

The GHG abatement measures and technology options identified under Albania's FNC have undergone a prioritisation process through Albania's TNA exercise carried out under the Top-Up phase of Climate Change Enabling Activities.

The TNA was a continuation of the work carried out or identified/recommended under Albania's FNC and through other activities to enhance technology transfer. This assessment of technology needs has been made through a sector-by-sector approach, starting with the energy sector which, according to the Albania's FNC makes the most significant contribution to the overall GHG emissions inventory. The assessment also covers other sectors such as LUCF, agriculture, waste management and industrial processes.

Using the compiled information on alternative technologies for the priority sectors and sub-sectors and based on the ranking of the alternative technologies, the top three to four technologies are considered as key ones for most of sectors under assessment. Once the key technologies are selected, the barriers will be assessed, along with the policy needs and actions. A package of project ideas for the key technologies is designed.

The software used for the development of energy and transport baseline emissions scenario was Long-range Energy Alternatives Planning (LEAP) (version 95.0). Concerning the non-energy sectors, the 1996 revised IPCC methodology is used for the development of baseline emission projections, although an exception is made for the solvent use sector. The predictions for NMVOC emissions by the year 2020 are made according to CORINAR methodology. The development of GHG abatement

analysis for energy and transport is based on LEAP and GACMO⁸ software. For the other sectors, the analysis is more qualitative (quantitative analysis was not possible).

Base year data (from 1994) for the development of the GHG baseline scenarios are identical to those of the GHG inventory. Data for other years (1994-2000) and predictions on macro-economic indicators were received from INSTAT and other relevant institutions/ministries already mentioned in GHG inventory section.

Having the GHG inventory as the starting point for the GHG abatement analysis and given the data gaps related to this inventory, gaps and uncertainties of the same nature were present to the abatement analysis exercise as well. Therefore attempts to reduce data gaps and the level of uncertainty under the GHG inventory will in turn bring more accurate abatement analysis, i.e. more realistic predictions. The team lacked the necessary data to perform quantitative analysis for some technology options, such as: central heating (CH) schemes; district heating systems (DHS); small scale combined heat and power (CHP) and DHS in new urban areas.

Another gap was related to the programming issue. In other words, in the course of the preparation of the Albania's FNC sector-specific scenarios and related national strategies, and programmes were not available for the sectors that were under the focus of the GHG abatement analysis. This is not the case for the time being. Many new strategies and actions plans have recently been adopted by the Government of Albania that will impact GHG abatement in Albania, and therefore both scenarios (baseline and abatement) need to be updated and improved. Abatement analysis is a component of the national communication that follows the GHG inventory. It could be done right after the completion of the GHG inventory, which serves as the starting point of the analysis. In Albania's case the GHG inventory developed for 1994 served as the starting point for the baseline scenario of GHG emissions. The analysis consists of the development of two scenarios: baseline and abatement. The analysis of scenarios brings the package of measures and technologies to be developed in order to reduce (abate) the GHG emissions.

Albania has addressed the mitigation and adaptation measures through the National Climate Change Strategy, which consists of a set of priorities for action in order to integrate climate change concerns into other economic development plans. This strategy is elaborated in the frame of Albania's First National Communication. The abatement scenario of emissions foresees the introduction and implementation of different options mainly focused on energy saving and energy efficiency measures. A basket of 25 GHG mitigation measures for the energy and transport sector is proposed in the frame of this study, which are then analysed in terms of cost and benefit. Even the rate of penetration is calculated. The above measures consist of the thermal insulation in housing, efficient bulbs, solar thermal, LPG (cooking, heating), small schemes SHP, fuel switching in industry, etc. More information on the GHG inventory can be found in Albania's FNC report. These measures are addressed in the National Climate Change Action Plan, which is a part of the revised National Environmental Action Plan already adopted by the Government of Albania.

In terms of resource mobilisation, the package of project ideas was developed under the TNA exercise. Two projects have been sent to GEF for funding and seem to be successful (one is a project on Market Transformation for Solar Thermal Water Heating in Albania). GEF has recently approved the Project Development Facility, Block B (PDF B) . Another project on building adaptive capacities for representative vulnerable system is under way. The rest of the project idea notes serve as a good background for the potential project to be carried out under the CDM.

⁸ GACMO is a GHG costing model developed at the UNEP Center for Energy and Environment.

The GHG abatement analysis to be carried out under the SNC will be sector – specific, i.e. it will consider the following sectors: *energy, agriculture, waste, LUCF, industrial processes and solvents*. A special attention will be put under the *energy and transport sector* as significant contributors to the GHG emissions, already considered as priority categories under this thematic area.

The Baseline Scenario developed under the Albania’s FNC will be *subject of revision, update and adjustments* in accordance with the new development conditions of the country and possibilities for future socio-economic development. The GHG inventory base year 2000 will serve as the starting point of the GHG analysis. The GHG abatement analysis will go up to 2025, i.e., 5 years beyond the analysis carried out under FNC. There is also a need to update and revise all *details and assumptions* made. Assuming to have better and more improved GHG inventory due to data improvement, better inputs from more comprehensive national economic development parameters, more accurate assumptions for economic and demographic parameters, which are based from their side on the macro-economic projections of the country as a whole, as well as in the development plans of the economic sectors, more reliable and improved GHG scenarios for all relevant sectors will be developed.

The list of abatement options proposed for the abatement scenario for each sector will be *reviewed and updated* in the light of new developments and needs. Key sources identified and updated under the GHG inventory exercise will be considered while making the selection of technology options. The impact of specific emission reduction actions / options will be measured (quantitative at the possible extend) against the baseline scenario. The cost and benefit will be analyzed.

Once the options have been identified, barriers assessed there is a need to select them for short and long term interventions. This process involves revisiting of priorities identified earlier in the light of barrier analysis. In the course of the selection process the team agreed to consider two distinct Tiers of options/measures

- *Win-win* options /measures that could be deliver / implement faster, cheaper and easier.
- In a longer term, new options will become available which need significant resources and efforts.

The scenarios for energy, including transport sector will be still based on LEAP 2000 Software (the latest version). As per other sectors the team will explore on the possibility to utilize appropriate models/ software such as STAIR or COPATH for Agriculture if will be made available. IPCC Excel Spreadsheets will be utilized in case that no specific software will be available. Selection of abatement options will be done through a multi criteria analysis. For that purpose criteria will be set and a selection process will be done based in the scores. Type and respective weight for each criterion will be decided through consultations with different stakeholders and scores for each option will be found

II.4.1.3 Assessment of the vulnerability and adaptation measures

The very first assessment of Albania’s climate vulnerability and adaptation options has been carried out under UNEP/Mediterranean Action Plan in 1995. The study has been very modest and covered the Albania’s coastal area only. This assessment performed under IPCC guidelines of 1994 consisted on study of the expected climate changes and their impact to the relevant sectors. A more completed assessment of vulnerability and adaptation has followed the first one. It was one of the main activities carried out under Albania’s FNC project. This study covered *the overall Albanian territory*. It was focused on the assessment of expected climate impacts in *hydrosphere, natural and managed ecosystems, energy, tourism, health and sanitation, population*. Official districts have been considered as base units, constrained within available data.

The overall work performed under Albania's FNC to assess the vulnerabilities has consisted on: (i) Evaluation of climate variability and trends during baseline period; (ii) Analysis of environmental and socio-economic situation in the absence of climate change; (iii) Development of climate change scenarios for Albania; (iv) Projections of environmental situation affected by climate change. (v) The factors that are directly affected by climate (such as river flows, runoff, energy needs, etc.) (vi) Projections of socio-economic situation affected by climate change.

As a climatologic baseline a 30-years '*normal period*' as defined by WMO has been accepted. The period 1961-1990 is selected as a *baseline* to study the influence of climate on the relevant sectors. Three time horizons were considered: years 2025, 2050 and 2100. Although the year 2100 was fixed as upper horizon, in some cases such as in social-economic assessments, projections were not reliable for more than a few years ahead. For these cases (energy, population, etc.) the team has considered the year 2025 as the upper level. For others (natural ecosystems, forestry, etc.) that have longer response, the vulnerability assessment has been extended up to 2050 and 2100 horizons.

A long list of sector-specific adaptation options is developed by taking into account two main objectives identified, as following: (i) promotion of sustainable development, and (ii) the reduction of vulnerability (IPCC 1994).

In the course of the Top-Up phase the adaptation team has been focused on TNA for coastal adaptation, already assessed as the most vulnerable under the Albania's FNC. The assessment process was sector – specific one and has consisted on the review the evaluation for technology for the following sectors: (i) *water resources*, (ii) *agriculture*, (iii) *forestry*, (iv) *human health*, (v) *tourism and settlements*.

Using likely the same criteria as for abatement technologies 2-3 top adaptation options / technologies have been considered as key ones. Once key technologies were selected, barriers were assessed along with actions needed. Concrete actions were proposed in the form of the project ideas.

The assessment of vulnerabilities and adaptation options is carried out in accordance with the IPCC guidelines (IPCC, 1994). The scenarios of likely climate change for Albania were prepared by using MAGICC/SCENGEN software as recommended by NCSP.

A variety of analytical methods in climate impact assessment (CIA) have been selected. Among others, worth mentioning were: experimentation, impact projections, empirical analogue studies and expert judgment. The LEAP model has been used to evaluate the likely impact of climate change in energy. A simple statistical model has been used in the runoff assessment. For the other sectors, statistical models were developed or empirical analogues have been used (regional analogies of present climate and regional analogies of future climate). The need to use socio-economic scenarios or integrated system models were highly stressed.

All climatologically data have been received from the Hydro-metrological Institute. Data regarding relevant sectors were received from other relevant institutions/ministries like National Agency of Energy, Ministry of Environment, Ministry of Energy and Industry, Ministry of Transport, the National Directorate of Forestry, and different data bases, surveys and studies prepared by International organizations, Universities and different NGOs.

In the course of the preparation of the SNC project proposal the expert team agreed to narrow the focus of the assessment to be carried out under the SNC to an area with subset of vulnerabilities, where there is both high vulnerability and a likelihood of significant impacts of climate change and vulnerability. The focused area along with the sectors under analysis will comprise a compound system that will be under the focus of analysis. Three specific areas have been analyzed under the stocktaking exercise. They are (i) Drini river Cascade; (ii) Shkumbini River Basin (8th corridor); (iii) Durrës-Kukës Highway

A set of selection criteria of equal weight was developed and agreed through the broad consultations with stakeholders. The *selected area* is wide spread, from east to west of Albania putting together an interesting topographic diversity such as mountains, gorges, fields, coast, seashore. The Drini River cascade originates from Kukës up to the coast, to its delta (Lezha). Design of an Adaptation Policy Framework (APF) for the selected area will be the main outcome of the vulnerability and adaptation exercise under the SNC. This will facilitate the process of mainstreaming the climate vulnerability and change and adaptation response to the national planning and policy.

The team has agreed the assessment of vulnerability will be sector –specific and will consider the following related sectors, such as: (i) *water resources*; (ii) *agriculture*; (iii) *energy*; (iv) *forestry*; (v) *tourism*; (vi) *population and settlement*. 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. Climate change is expected to affect seasonally the amount and flow of rivers, which in turn is expected to affect electricity supply generated annually by hydroelectric and its timing. An assessment will be done on of the impact of climate change to the electrical energy supply for the selected area. The hydropower cascade of Drini River has a total exploitable capacity of 1.7 GW and a generation potential of 6.8 TWh, accounting for the bulk of Albania’s hydroelectric potential.

The assessment will integrate also other sectors like agriculture (irrigation systems and cereals production), forests (erosion) etc, as it is known that adaptation in one sector often has consequences for others therefore, an integrated assessment will be done at the extend possible. The area has potential resources from the economic development point of view (agriculture, livestock, mining, tourism, etc.). The Shengjini beach is well known for its attractive touristy values especially during the summer time. The selected area brings together diverse *demographic processes* and *social phenomena*, such as unemployment, poverty, emigration, social conflicts, etc. In some sub-areas extreme cases of such infant mortality, poverty, rural and exodus are observed. The coastal part of the selected area Lezha field (plain) is known for inundations after heavy rains that are becoming more and more frequent. These evens that are registered as extreme ones have caused serious damages mainly in agriculture, tourism and settlement. Lack of infrastructure in this area has triggered the situation.

The emphasis will be put on the current conditions i.e. current *climate risk and vulnerability* and on this basis the future vulnerability will be predicted. This part of the assessment also includes an assessment of the scope and effectiveness of adaptation measures that may have been implemented. Three baselines will be developed for the selected area: (i) climate baseline; (ii) environmental baseline and (iii) socio-economic baseline.

Current vulnerability and climate impact to sectors will be assessed through the use of some indicators: For the climate system the indicators will be temperature (seasonal), precipitation (seasonal), wind, cloudiness and sunshine duration. The average change in mean runoff will be selected as the main indicator for water resources. For energy sector the main indicators would be of energy demand and supply. Forests area and eroded land would be the main indicators to assess the forests sector. Plant production, irrigation systems, cattle breeding poultry production and would be as indicators for agriculture/livestock. Coastal tourism under the selected will be assessed in terms of the impact of the sea level rise and the rise of temperatures. Settlements will be assessed in terms of impact of droughts and flooding into inhabitant’s wellbeing.

Designing of an Adaptation Strategy Paper based in Adaptation Policy Framework (APF) for the selected area will be the main outcome of the vulnerability and adaptation exercise under the SNC. This will facilitate the process of mainstreaming the climate vulnerability and change and adaptation response to the national planning and policy. The strategy paper will outline adaptation measures and

plans of implementation (what); the way of implementation and resources needed (how); time frame (when); responsible parties for its implementation (who). It will serve as the basic document that will create the momentum for a follow-up of this process, i.e. addressing climate variability and change to the national planning and policy.

II.4.1.4 Public awareness and communication on climate change

Public awareness, exchange of information and communication are important components that are crosscutting to the entirety of attempts undertaken by Albania to implement the UNFCCC and Kyoto Protocol. Efforts to raise awareness on climate change have contributed positively to the climate change mainstreaming process.

Despite the increasing public awareness activity regarding environmental issues in general, the issue of climate change in Albania is still relatively dormant, and even at the level of policy makers one does not find a very good understanding of the climate changes and the related issues.

The preparation of Albania's FNC is the first step in the fulfillment of the country's commitments under the UNFCCC. These comprehensive results of the conducted work under the frame of this document show that awareness raising and intensified education and training on that issue are very important, in order to expect effective implementation of the Climate Change Action Plan and meeting obligations to the convention.

Prior to the start up of the GEF project on National Communication preparation no any public awareness on climate change activities has been carried out in Albania. Although the raising of public awareness is not the immediate objective of the GEF project on National Communication preparation the FNC process has positively contributed to awareness raising among all stakeholders, enhancement of knowledge on climate change related issues, strengthening of the dialogue, information exchange and cooperation among all relevant stakeholders including governmental, non-governmental, and academic and private sectors; and building national capacities.

The project Steering Committee meetings and joint efforts of ensuring the support from the governmental institutions for the project, have served as a way of raising awareness among policy makers who represent different climate change institutions. These policy makers are expected to also provide support for the adoption and implementation of the National Climate Change Action Plan. The workshops organized under the GEF project on National Communication preparation have contributed to the same purpose of awareness rising.

While working with UNDP Albania as the implementing agency for climate change projects funded by GEF, all climate change project activities have been aligned with the UNDP country office policy and mission which consists on reaching the MDGs (Millennium Development Goals) and responding to other national priorities through the human development approach. Albania is a pioneer country in the preparation of a national MDGs monitoring report in Europe. As a consequence of a participatory process, the GHG reporting is integrated as a part of the MDG reporting system - the main GHG inventory indicators are integrated into the MDGs monitoring indicators, making the MDGs targets and indicators more country specific and measurable. Also the majority of the MDGs are used as tools /criteria for prioritization of technology needs for GHG mitigation. The Government of Albania is now for the first time including the MDGs into national planning monitoring and evaluating system. In this context, the climate change strategy and related indicators are successfully addressed in the newly adopted National Energy Strategy, which is a part of the NSSD (National Strategy for Socio-Economic Development). This progress came also as a consequence of a broad participatory process and stakeholder consultation.

The publication of the main results and findings of the Albania's FNC in the recent State of Environment Report (SoE) as well as inclusion of the Climate Change Action Plan into the revised National Environmental Action Plan are other indicators of a higher level of awareness among the environmental policy makers. The establishment of the National Climate Change Web Page has played an effective role in rising awareness about climate change.

To assess the level of public awareness and other relevant components addressed under Article 6 of the UNFCCC, a survey has been carried out under the *Article 6* Project funded by United Nations Environment Program.

The purpose of the survey was to assess: the level of knowledge regarding Climate Change issues, UNFCCC and Kyoto Protocol in Albania which will serve as basis for a national strategy formulation comprised of flexible country-driven actions addressing specific needs required for implementation of the Article 6 of UNFCCC in Albania;

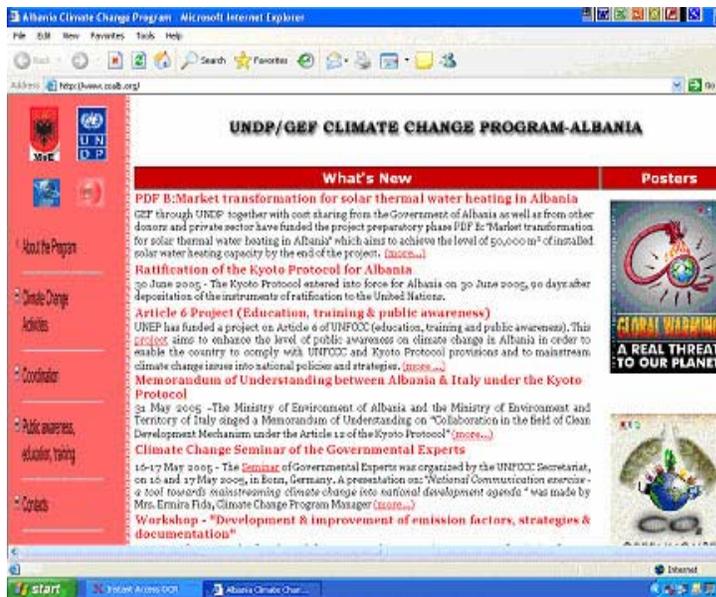
The survey was conducted to assess the needs and requirements for implementation of the Article 6 of UNFCCC. The method used in the survey comprises in-depth interviews through personalized questionnaires. A total of six hundred (600) questionnaires were administered and data collected were analyzed both quantitatively and qualitatively.

The target group of the questionnaire was different stakeholders coming from public sector, private sector and NGOs. Different categories have been targeted. These categories belong to sectors that are affected or affect the climate change such as energy, transport, industry, agriculture, land use change and forestry and waste.

Based on the survey a general conclusion derives: More than half of the public is not aware on climate change and its threats. A higher share belongs to those who do not know about Albania's position, institutions and accomplishments under the UNFCCC and Kyoto Protocol

The results of the survey show that despite of the efforts made on awareness and communication, training and education related to climate change, there is a need for additional major interventions. This will start with a communication strategy on climate change issues which after its implementation stage will bring change to our behavior and way of doing things. Climate change is a global problem; however each of us has the power to make a difference. Even small changes in our behavior can help prevent greenhouse emissions without affecting our quality of life. Because reducing our greenhouse gas emissions will require changes to the way we produce and use energy. And this can save us money.

Public awareness and outreach has been designed as a cross-cutting component during the overall climate change activities carried out by the Climate Change Unit/Programme. A national climate change web page www.ccalb.org designed in 2000 is updated on a monthly basis. In addition, seminars, trainings, posters and newspaper articles have been produced and interviews have been given in the media over the years.



A strategy of partnership with governmental institutions, international organisations, academia and NGOs has been implemented and found to be successful. The role of the Project Steering Committee has been critical to the success of this strategy. Among the partners involved under the process those to whom the collaboration has been strong and successful have been the Ministry of Energy and Industry, National Agency of Energy, Ministry of Agriculture and Food, Polytechnic University of Tirana, Institute of Hydrometeorology, Institute of Biological Research, Institute of Statistics, ECAT-Tirana, and Energy and Environment for Sustainable Development (NGO).

UNEP *has been recently* implementing a project in Albania in support of [UNFCCC Article 6](#), which includes, *inter alia*, assistance to countries to raise public awareness on climate change, to involve local stakeholders in a dialogue on a perspective national climate strategy, to approach various target groups on climate change issues, and to disseminate up-to-date materials on climate change problems. This project aimed to enhance the level of public awareness on climate change in Albania in order to enable the country to comply with UNFCCC and Kyoto Protocol provisions and to mainstream climate change issues into national policies and strategies. A country assessment on the level of the awareness on climate change issues *has been carried out through a survey which* has served as basis for a communication strategy formulation comprised of flexible country-driven actions addressing specific needs required for implementation of the Article 6 of UNFCCC in Albania. The survey consisted in-depth interviews through personalized questionnaires. Gathering of primarily data has mainly been done through interviews of representative sample of different stakeholder groups.

A total of six hundred *600 questionnaires* were administered and data collected were analyzed both quantitatively and qualitatively. 500 questionnaires, out of 600 questionnaires were distributed in Tirana city; the capitol of Albania and the rest of 100 were administered in the main prefectures of the country through the network of Regional Environmental Agencies. Different national stakeholder consultative meetings were conducted to seek comments, suggestions, identify needs, barriers and gaps for the purpose of the development and validation of a communication strategy at the end.

Given that no previous assessment on climate change has been previously made it was agreed to start with interviewing climate change related stakeholders and expanding the *target group* towards a wider group that of environmental related stakeholders. The target group of the questionnaire covers different stakeholders coming from categories of public sector, private sector and NGOs. Different

sub-categories have been also targeted which belong to sectors that are affected or affect the climate change such as energy, transport, industry, agriculture, land use change and forestry and waste. Environmental protection and others have also been included as sub-categories.

A report on the findings from the survey along with a summary of the findings from the survey has been elaborated from the EESDC and posted in the national climate change web page: <http://www.ccalb.org/>

As indicated under the [conclusions of the survey](#) carried out with the purpose to assess needs and requirements for the implementation of Article 6 of the UNFCCC, there is a clear need for an intensified public awareness in the field. The summary of survey results reveal that almost 46% of the people interviewed, when asked about when and how Albania will be affected by climate change, said that they do not believe that a temperature increase has happened due to climate change impact. On the other hand, the survey shows that 77,1% of the interviewees think that Albanian citizens are able to actively participate in climate change policy-making, which leaves room for interventions that would make the population more active in terms of climate change issues. Another interesting finding of the survey is that 80% of the respondents think that a public awareness campaign will increase public awareness among parliamentarians and the public at large.

Based upon the current situation of the Article 6 related activities which serves as the baseline and, the findings from the national survey carried out, a Communication Strategy has been drafted. This practical communication strategy explicitly focuses on the role that information and communication can play in empowering interested parties to strengthen the level of understanding and awareness on the issues of climate change and the Article 6 through the effective usage of media and public information activities. The strategy highlights the fact that the genuine involvement and participation can only occur if the information needs of all citizens (including those at the margins of societies) are met and the voices of those most affected by development decisions are heard.

This communication strategy *aims* at generating awareness on the climate change issues in Albania with a special emphasis on the Kyoto Protocol benefits and obligations. Its goal is not only to raise visibility in this direction, but also to mobilize new partnerships in order to achieve a higher degree of general awareness and encourage actions to be taken by all stakeholders. Through an aggressive communications campaign that will accompany the process, the Government of Albania through its Ministry of Environment, Forests and Water Administration aims at attracting the interest and attention of respective interest groups such as: the Albanian Government, private sector, civil society, media and Albanian general public. This strategy aims at gathering public support in order to achieve a successful implementation of the UNFCCC and a fruitful participation of Albania in the Clean Development Mechanism under the Kyoto Protocol and other climate change programs. As a deliverable under the Article 6 Project funded by UNEP the strategy is posted under the web page: <http://www.ccalb.org/>

III. Albania's participation to the Kyoto flexible mechanisms

With the ratification of the Kyoto Protocol by its Parliament, Albania become eligible for participation under the CDM. This will serve mainly to promote sustainable development through the promotion and diffusion of new and clean technologies, protection of the environment at national and global levels by accepting that the global nature of climate change requires wide cooperation between countries according to their common but differentiated responsibilities and in the line with their socio-economic circumstances.

Ratification of the Kyoto Protocol does not entail any financial implications to Albania due to the status of non-Annex I that the country enjoys , which does not bring any emissions reduction target.

However, the ratification enables Albania to attract new investments and projects in the field of energy, transport, environment, forests, etc. through the CDM mechanism by facilitating the implementation of the sectoral action plans that derive from respective strategies. This is the case for the National Energy Strategy, which in addition to the environmental concerns addressed has stressed greatly the need for ratification of the Kyoto Protocol by Albania. This ratification is also in line with the policy of the EU that has already ratified this protocol. Moreover, four years ago it started the implementation of an action plan to achieve a 7-percent reduction from 1990 levels by 2012.

After the ratification of the protocol, the next step to make it operational is the establishment of respective institutional structures (DNA) that would propose, follow up and monitor the CDM projects that would be funded under this mechanism. The DNA belongs to the Ministry of Environment through its Climate Change Unit.

The first CDM project would be a project funded by the Bio Carbon Fund of the World Bank Group on Community-based carbon sequestration. It is a large scale project whose methodology has been approved by the CDM Executive Board. An Emission Reduction Purchase Agreement has been negotiated and agreed between MoEFWA and Bio Carbon Fund of the World Bank. The above project has served somehow in paving the way towards building the institutions to deal with Kyoto Mechanisms in Albania. Although the DNA exists as an authority there is a significant need to strengthen it and to set up an active and operational body.

A Memorandum of Understanding has been recently signed with the Ministry of Environment and Territory of Italy on issues related to the Kyoto Protocol. Capacity-building activities will start soon in order to enable the environment to host CDM projects. UNDP and WB have started being more active on such issue by approaching Albania in designing and developing project that address Capacity Building for the Kyoto Flexible Mechanisms.

IV. Conclusions and recommendations

The above assessment of the climate change thematic area provides a clear message that the overall system for the implementation of the UNFCCC and its Protocol is not sufficient. There is a list of the constraints that hinder the implementation of the UNFCCC and participation into the Kyoto Protocol Flexible Mechanisms:

- Lack of awareness on climate change issues at all levels
- Lack of relevant education at all levels
- Lack of sufficient funds from the state budget
- Insufficient climate change mainstreaming efforts
- Insufficient capacities to deal with climate change issues
- Lack of reliable data to compile studies for climate change
- Lack of inter-ministerial coordination efforts
- Lack of a sustainable mechanism for the reporting to the UNFCCC.
- Lack of an favorable environment to attract investments for climate friendly technology transfer

There is a recommendation which aims at the establishment of a **sustainable and efficient mechanism for the implementation of the Convention in Albania**. In order to achieve this it would be necessary to undertake the following actions:

- Increase public awareness on climate change issues through an effective communication and outreaching strategy.
- Establish a sustainable mechanism for developing frequent GHG inventories and other components of National Communication to the UNFCCC
- Enhance national capacity to collect data and estimate GHG inventories, abatement analysis and vulnerability and adaptation studies for climate change in Albania
- Train the staff in order to ensure the sustainability of the process of National Communication
- Continuously and systematically inform all levels of society on economic, environmental, and social opportunities that cooperation under the Convention
- Create a favorable environment for absorption of the investments that promote the transfer of climate friendly technologies through incentive systems and market instruments
- Use the national communication preparation process as a tool for integration of climate change concerns into national development plans.
- Address climate change adaptation issue into sectoral development strategies and programs, especially at the community level.
- Enhance the quality of the climate systematic observation and monitoring and ensure its sustainability.
- Build capacities to monitor and observe climate variability and change and address adaptation response measures for vulnerable systems in both national and community levels.
- Enhance skills for participating and developing negotiations on behalf of the country into the international climate change fora.

I. References

- *Albania's First National Communication to the CoP of the UNFCCC.*
- *Project document: "Enabling Albania to Prepare its First National Communication to the CoP of the UNFCCC."*
- *Project document: "Building National Capacities in Priority Areas (Technology Needs Assessment)."*
- *Albania's Technology Needs Assessment Report*
- *Synthesis Report on Stocktaking of Climate Change Activities Carried Out in Albania up to 2004.*
- *Project Document: "Enabling Albania to Conduct the Self-assessment Exercise for the Purpose of Preparation of the Second National Communications the CoP of the UNFCCC."*

Annex 1

Article 6 of the UNFCCC

EDUCATION, TRAINING AND PUBLIC AWARENESS

In carrying out their commitments under Article 4, paragraph 1(i), the Parties shall:

(a) Promote and facilitate at the national and, as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:

(i) The development and implementation of educational and public awareness programmes on climate change and its effects;

(ii) Public access to information on climate change and its effects;

(iii) Public participation in addressing climate change and its effects and developing adequate responses; and

(iv) Training of scientific, technical and managerial personnel.

(b) Cooperate in and promote, at the international level, and, where appropriate, using existing bodies:

(i) The development and exchange of educational and public awareness material on climate change and its effects; and

(ii) The development and implementation of education and training programs, including the strengthening of national institutions and the exchange or secondment of personnel to train experts in this field, in particular for developing countries.

Annex II

Summary of the finding from the survey on assessment of the needs and requirements for implementation of the Article 6 of the UNFCCC.

1. 58.4% of the respondents know about United Nations Framework Convention on Climate Change and as well as the Kyoto Protocol.
2. 43.0% of the respondents know that exist an Intergovernmental Panel on Climate Change
3. 52.8% of the respondents believe that global warming is a human-induced phenomenon. 29.6% believe that it is primarily a natural phenomenon and 17.7 % are unsure or don't know.
4. 46.7% of the respondents believe that an increase of temperature on the Earth has already been detected.
5. Only 11.9% of the respondents believe that the increase in temperature is as results of global warming.
6. 50.5% of the respondents know that Albania is a Party to the UNFCCC and Kyoto Protocol.
7. 50.5% of the respondents know that a Climate Change Unit funded through the United Nations exists under the Ministry of Environment of Albania.
8. 39.8% of the respondents know that the Climate Change Unit under the Ministry of the Environment is running the process of preparation of the National Communication, has completed the first one and has stated the second one.
9. Only 38.7 % of the respondents know that the National Communication contains a GHG inventory, GHG mitigation analysis and Vulnerability and Adaptation.
10. 49.5% of respondents know that CO₂ is the main contributing gas to the GWP.
11. The majority of respondents think that thermal insulation is the most important measure to reduce green house gases.
12. 67.6% of the respondents believe that the way we travel and consume energy is very important in terms of GHG emission reduction.
13. The majority of respondents think that the major role in raising awareness on climate change related issues belongs to NGOs
14. The majority of the respondents think that the most appropriate message to be disseminated to the public is "*Climate change is a real threat to the global world*".
15. The majority of the respondents believe that best way to inform them is through the TV Documentary and Conversation Programs and leaflets and posters.

16. The majority of the respondents think that the main barrier that needs to be removed in promoting public awareness is inadequate financing.
17. The majority of respondents think that education and training on climate change are important issues to be addressed.
18. 77.1% of the respondents believe that Albanian citizens are able to actively participate in and have an impact towards national climate change policy
19. 79.6% of the respondents believe that politicians must be more actively participating in climate change policy-making
20. 90.5% of the interviewers believe that this campaign will have significant contribution for increasing public awareness regarding climate change issues.
21. Referring to correlations the biggest share of respondents who are aware of UNFCCC and Kyoto Protocol declare that they do know the IPCC.
22. Correlations show that almost half of the respondents who believe that climate change it is primarily human-induced do believe that an increase of the temperature in the atmosphere has already been detected.
23. Correlation shows that the majority of those who know about the status of Albania under the UNFCCC and Kyoto Protocol are aware on the existence of the Climate Change Unit under the Ministry of Environment.
24. Correlation shows that all of them who know about the existence of the Climate Change Unit have declared that they do know that this Unit is running the National Communication process. This is very important conclusion, which shows the full correctness of carry out this survey.
25. 98% of those Correlation who know that the Unit has carried out National Communication preparation do know that this document contains thematic components such as GHG Inventory, GHG mitigation and Vulnerability and Adaptation.

Annex III

Organizational chart of the Climate Change Unit/Program

