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Albanian Policy Paper for Carbon Finance

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Executive Summary

With the approval of the Kyoto Protocol in 1998, the Clean Development Mechanism (CDM) was established as the first flexibility mechanism that included countries with no greenhouse emission reduction obligations under the United Nations Framework Climate Change Convention (UNFCCC), or Non-Annex I countries. Since then CDM has become one of the most powerful instruments in the , international carbon market (and maybe the first element of it). From that time on, new mechanisms and emission-trading schemes were developed or are in the way of implementation either under the international agreements umbrella or through voluntary schemes. The tendency of these developments appears to move to the establishment of a consolidated global carbon market in the next 15 years. In economical terms, this tendency seems to maximize the potential benefits and the efficiency of flexible carbon mechanisms, or carbon offset mechanisms, as they are otherwise known, as well as constituting one of the main strategies in international climate change policy.

The continuity of carbon markets appears to be certain even against any temporary delay in negotiations at the UNFCCC or the global economic recession. New agreements will take form and new systems will emerge in the next 10 years. Until the unveiling of the financial crisis in September 2008 and the onset of the first phase of the global economic recession, the carbon market had been growing exponentially for five straight years, if we take 2003 as the formal year of establishment of this market. Global recession established new conditions for the development of carbon markets, an arrest in the growth of project-based mechanism transactions in the short term, and a new set of expectations from the regulatory and market point of view for the medium term.

The global economic recession had noticeable effects in carbon markets. A report notes that projects continued year-on-year carbon market growth, but their predictions imply that trade volume is levelling off in 2009, *compared to the last months of 2008*¹. Another report about expectations highlights that the principal market actors believe that “a pronounced decline will be seen in the CDM and JI project markets in 2009, *as both are projected to fall by almost half in volume terms*”². This apparent gap in the CDM potential for Certified Emissions Reductions (CER) delivery offers a new opportunity for new players like Albania to mark presence in the CDM market with high-quality projects.

Albania is highly vulnerable to climate change. Although being a low emitter, national GHG emissions are projected to grow considerably in the next years. Additionally Albania’s greenhouse emission reduction potential is relevant especially in the energy and forestry/agriculture sectors. Despite its potential, Albania has lacked behind in carbon markets positioning. No project has yet been registered internationally as CDM project in Albania. Only recently procedural rules have completed the institutional setting for the development of CDM projects. In Albania, the responsibility of the Designated National Authority (DNA) falls upon the Ministry of Environment, Forestry and Water Administration (MoEFWA) which is the national body responsible for the national environmental management and policy.

¹ Stuerk, Mehling and Tuerk, 2009

² Capoor and Ambrosi, 2009, page 2

The MoEFWA nominated UNDP Climate Change Programme to support the DNA taking into account the experience of UNDP in serving as a National Focal Point to the UNFCCC and Kyoto Protocol and the assistance UNDP provided to the MoEFWA in implementation of the UNFCCC and Kyoto Protocol. Under this cooperation, procedures for the review and approval of proposed CDM project activities in Albania were recently designed and approved.

These procedures contemplate a two-tier approach, by which the system evaluates first the idea of the project explained in a PIN document and, in a second stage, evaluate a more elaborate project proposal as presented in a formal PDD. According to the Albanian DNA, there is also the possibility to present directly a fully developed PDD, and therefore shortening the approval process by nearly half the time.

Despite an adequate institutional framework for CDM approval, CDM project development is very much absent in Albania. However, the Albanian Government must still confront diverse barriers for an effective and substantial participation of Albanian actors in the CDM and other carbon markets. The barriers that prevent a full development of CDM and other carbon markets in Albania can be described as follows:

- a. Low attention by foreign investors. The exposure of Albania for foreign investors has not still reached a level in which the country can be identified as a significant partner in the development of CDM projects. Shortage of financing concerns both the base project and the carbon component of that same project, since many interested compliance buyers will only pay for credits on delivery (and will not provide start-up finance);
- b. Lack of national financing capacities. Shortage of financial resources make the Albanian government unable to support CDM projects. Private financial entities in Albania are not sensibilized towards CDM and other carbon markets. Financial crisis might lead to further delays in credit support to planned CDM projects;
- c. Absence of perception of a transparent legal framework. Although DNA approval procedures have been established other elements that affect confidence in CDM investors have not been clarified. Clarity about fiscal regime applicable to CERS is fundamental. Going beyond this, actions by the government to make the CDM legal framework be perceived as transparent and be internalized by the private sector as a non-disruptive procedure are in need;
- d. Absence of capacity building to targeted national private sector, including financing entities.
- e. The country still has a good way to go in the development of technical capacities for project formulation, from the base project to the more specific elements of carbon finance; however, in the present market conditions, conventionally defined capacity-building (information workshops and so on) tends to be ineffective, and there is a necessity to formulate the guidelines for an effectual creation of technical expertise;
- f. Besides the technical capacities, there is also a need for what is called managerial *know-how* in carbon finance;

- g. Among managerial capacities, it is essential to acquire the knowledge and capacities to identify market trends such as potential clients, demand, competition and prices, as well as innovative deal structures and financial packages for carbon finance;
- h. Absence of institutional capacities to follow-up of international negotiations and perceive the evolution of carbon markets.
- i. Relatively low coordination between Ministerial bodies in defining economy sectors that will be target of emissions reduction projects. Limited human capabilities and limited potential of carbon projects in Albania require a governmental plan to focus on the projects/areas with a large degree of implementation potential and higher side effects impacts;
- j. Another natural barrier is the relative rigidity of the government structures to change rapidly in front of a quickly changing business environment, even in the case of the CDM alone; reaching the required institutional and procedural flexibility is not an easy task but can be constructed over time.

Today, the most important players in the CDM, on the supply side such as China, India and Brazil dominate the market based on the sheer scale of their economies and their CDM operations. Albania cannot compete in this sphere but has to base its competitiveness, be it in the CDM or in future carbon markets, on different grounds than those of volume and massive market presence, namely, *on the quality and reliability* of its projects and carbon assets.

Consequently, the Vision of the present Policy Paper is that Albania *will be placed competitively in the CDM and future carbon markets based on the high quality of Albanian project activities and in the high standard of the emissions reductions obtained in these activities.*

Based on the analysis of the present context in carbon markets and the Vision mentioned above, the primary objective of the present Policy Paper can be formulated as follows: *to competitively maximize the effective development of the potentials of Albania in the CDM and in carbon finance, while minimizing transaction costs and contributing to the sustainable development of the country.*

To attain the primary objective of this Policy Paper, Albania will have to address effectively the barriers. Achieving the primary objective requires the following measures:

- a. Streamline the institutional and procedural design for CDM project activities, including the fiscal treatment applicable to carbon assets in the country;
- b. Establish the guidelines to develop the technical capacities for the implementation of CDM project activities in the field;
- c. Define the tactical approaches for undertaking initiatives and actions to raise public awareness and information on the modalities and procedures of the CDM and the benefits and costs of carbon finance;
- d. Characterize the best courses of action in increase the visibility of Albania to carbon finance investors and project implementers;

- e. Lay the foundations to the design of effective agreements between Albania and institutional multilateral, bi-lateral and private lenders and financiers, to provide a consistent flow of finance for the carbon market initiatives in Albania;
- f. Determine actions and processes to involve the business sector in Albania in the CDM, and to build managerial competence for participation in carbon finance;
- g. Link the European Union accession process and its related environmental and energy legislative requirements to the formulation of carbon projects. Guarantee a consistent presence in climate change international negotiations in order to guarantee Albania's interests
- h. Support for a continuous presence of Albania in climate change negotiations in order to guarantee Albania's interests.

Based on the analysis of the present carbon market conditions above, we could establish a series of competitiveness conditions that Albania will have to meet in the short term to reach an expectant position in the CDM market and other offset markets.

These conditions are presented below as a sequence of "competitiveness guidelines", as follows:

- A. Efficiency and "invisibility" of the approval process and the fiscal treatment for carbon finance investments, which means to present them with transparency, so that the private investors and internalize and factor them in their economic expectations for their project activities in Albania;
- B. "Branding" or differentiation of the Albanian project activities, on the base of quality of the initiatives and reliability of the emission reductions and the carbon finance operators;
- C. Flexibility in the predisposition of participation in different carbon finance markets and in the inclination to streamline processes and requirements as needed;
- D. Visibility and exposure to international investors, based in the previous three conditions and in the systematic promotion work of the Albanian DNA in international fairs and forums;
- E. In-country managerial proficiency for proposing, implementing and marketing project activities for the CDM and other offset schemes, attained through managerial capacity building.

In succeeding with the implementation of the means and instruments defined in the present Policy Paper, and with the support of a stable economic and social environment, Albania will be able to position itself as a noteworthy player in carbon finance and the carbon markets in the next 5 to 10 years.

In this context, the United Nations Development Programme is supporting the development of the present Policy Paper, which aims to position Albania in a competitive manner in the global carbon markets, in general, and the CDM, in particular.

I

Introduction

1. Introduction

The increasing concern for the effects of pollution on Earth's ecosystems, and on social and economic development, led to an early identification of climate change risks, which were first analyzed at the *United Nations Conference on the Human Environment* (also known as the Stockholm Conference), convened under UN auspices in Stockholm, Sweden from 5th to 16th June 1972. This was the UN's first major conference on international environmental issues, and marked a turning point in the development of international environmental politics.

The conference led to major international results, like an increasing awareness of environmental problems, the characterization of environmental policies as part of the governmental structure, the creation of the UN Environment Programme, and the report of the Brundtland Commission, in 1987³, from where negotiations started to produce a global treaty to address climate change, finished at the Earth Summit. UN Agencies, especially UNDP and UNEP, played a major role in support of these negotiations, and in the implementation of the UNFCCC structure afterwards.

It is important to place the development of international carbon markets in the context of the construction of the legal framework for international climate policy, in a strategic view. The international political response to climate change, in the form of a legal framework for action, began with the adoption of the UNFCCC in 1992.

The United Nations Framework Convention on Climate Change is one of the key international environmental treaties produced at the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit, held in Rio de Janeiro from 3rd to 14th June 1992. The UNFCCC is aimed at "*stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*".

The UNFCCC set no mandatory but only aspirational limits on greenhouse gas emissions for individual nations or groups of nations, and contained no enforcement provisions. Rather, the UNFCCC included provisions for updates (called "protocols") that would set mandatory emission limits. The first important "update" of the UNFCCC is the Kyoto Protocol (KP). The UNFCCC entered into force on March 21, 1994.

In December 1997, delegates at the UNFCCC COP 3 in Kyoto agreed to a protocol to the UNFCCC that commits industrialized countries and countries in transition to a market economy to achieve emission reduction targets. These countries, known under the UNFCCC as Annex I parties, agreed to reduce their overall emissions of six greenhouse gases by an average of 5.2% below 1990 levels between 2008 and 2012 (the first commitment period). National limitations range from 8% reductions for the European Union and some others to 7% for the United States, 6% for Japan, and 0% for Russia. The KP permitted GHG emission increases of 8% for Australia and 10% for Iceland. The countries that are Parties to the Kyoto Protocol but are not included in Annex I of the UNFCCC are known as "Non-Annex I Parties", and have general roles of supporting compliance and implementation of the flexibility mechanisms of the Protocol.

The Kyoto Protocol (KP) establishes legally binding commitments for the reduction of four greenhouse gases (carbon dioxide, methane, nitrous oxide, sulphur hexafluoride), and two groups of gases (hydrofluorocarbons and perfluorocarbons) produced by "Annex I" countries, as well as general commitments for all signatory countries.

³ The report of the World Commission on Environment and Development (WCED), also known as Brundtland Commission, deals with sustainable development and the change of politics needed for achieving this type of development, as well as with the early-identified effects of climate change in sustainable development. The reference material for this Introduction, especially in the first two sub-sections of this first section, comes from three sources: IISD Reporting Services, 2009; Capoor and Ambrosi, 2009, and the Wikipedia articles on the UNFCCC and the Kyoto Protocol, 2009.

Albania ratified the United Nations Framework Convention on Climate Change (UNFCCC) on October, 1994, and it entered into force on 1 January 1995. As of January 2005 Albania is also a Party to the Kyoto Protocol of the UNFCCC. Albania holds the status of the Non Annex I Party to both these legal documents. The Ministry of Environment, Forestry and Water Administration of Albania is the key governmental agency responsible for the implementation of UNFCCC and Kyoto Protocol. In June 2005 the Government of Albania formally notified the Executive Secretary of the UNFCCC Secretariat and the CDM Executive Board on the nomination of the Designated National Authority in Albania and tasked the UNDP Climate Change Programme established in 1998 through UNDP/GEF - funded project to support the DNA functions in Albania. As part of its international action in carbon markets Albania has signed few bilateral and multilateral Memorandum of Understanding or Agreements on CDM project implementation with Italy, Denmark, Bio-Carbon Fund of the World Bank, KfW (German Development Bank) and for capacity building with Austrian Development Assistance. So far no Albania project has been registered internationally as CDM project.

1.1. The current framework of the CDM and the carbon markets

The Kyoto Protocol includes three defined “flexible mechanisms” such as Emissions Trading (IET), the Clean Development Mechanism and Joint Implementation (JI) to allow Annex I economies to meet their greenhouse gas (GHG) quantified emission reduction and limitation commitment (QELROs) by purchasing GHG emission reductions credits from elsewhere, through financial exchanges, projects that reduce emissions in non-Annex I economies (CDM), from other Annex I countries (JI), or from Annex I countries with excess allowances (EIT). Flexible mechanisms allow then Annex I nations to purchase carbon credits on the world market instead of reducing greenhouse gas emissions domestically.

In practice this means that while Non-Annex I economies have no GHG emission restrictions, they do have financial incentives to develop GHG emission reduction project activities that generate the so-called “carbon credits” or “carbon offsets” (when they come from projects or sectors which are not under reduction or limitation commitment). The generated carbon credits can then be sold to Annex I buyers, encouraging sustainable development and providing interesting sources of revenues to Non-Annex I countries. Annex I entities typically will want to acquire carbon credits as cheaply as possible, while Non-Annex I entities want to maximize the value of carbon credits or offsets generated from their domestic climate change mitigation projects.

Among the Annex I signatories, all nations have established Designated National Authorities to manage their greenhouse gas portfolios; countries including Japan, Canada, Italy, the Netherlands, Germany, France, Spain and others are actively promoting government carbon funds, supporting multilateral carbon funds intent on purchasing CER from Non-Annex I countries, and are working closely with their major utility, energy, oil & gas and chemicals conglomerates to acquire CER as cheaply as possible. Virtually all of the non-Annex I countries have also established Designated National Authorities to manage the Kyoto process, specifically the “CDM process” that determines which GHG Projects they wish to propose for accreditation by the CDM Executive Board.

The carbon market is however not only limited to the mechanisms under the Kyoto Protocol framework. In the last years, other emission trading schemes have been emerging, among them, the Regional Greenhouse Gas Initiative (RGGI), the Australian Emissions Trading program, the New Zealand Emissions Trading program and, most importantly, the European Union Emissions Trading Program (EU ETS). Special relevance deserves the proposed legislation for a US Federal cap and trade system, contained in the current Waxman-Markey proposal which has, at the time of conclusion of the present document, passed the House of Representatives and has been presented to the Senate floor. Carbon markets created and regulated by mandatory, international, national or regional schemes are called compliance markets.

In parallel to the institutionalised carbon market, there is a strong and growing voluntary market. The voluntary market works outside of the compliance markets and private entities and individual citizens participate in the business of acquisition of carbon credits in a voluntary basis.

The tendency of these developments appears to head to the establishment and consolidation of global carbon market in the next 15 years, of which the CDM will have been the first pioneer building block. In economical terms, this tendency seems to maximize the potential benefits and the efficiency of emissions trading, as well as constituting one of the main strategies in international climate change policy ⁴.

The trend appears also confirmed by the current development of the negotiations at the UNFCCC, which signal a clear intention to continue with the framework initiated with the Kyoto Protocol and even go beyond. Under current international negotiations that could lead in December 2009 to an agreement in Copenhagen, or maybe some time later, the post 2012 carbon market is being framed. There is a two-way negotiation, one for extending the validity of the Kyoto Protocol beyond 2012 (the Ad-Hoc Working Group on future commitments under the Kyoto Protocol, or AWG-KP) and the second one on commitments beyond the Protocol, probably involving the US and some of the bigger emitter amongst developing countries (the Ad-Hoc Working Group on Long-Term Cooperative Action or AWG-LCA). New proposals have emerged in both processes, which involve sectoral approaches, REDD and JI-graduation (See the following Sections of this Policy Paper)

⁴ Cf. Stuerk, Mehling and Tuerk, 2009, page 1, which also note that "So far, however, the market is far from being globally harmonised or systematically linked". Using evidence from other researchers, the authors highlight that "economic theory suggests that overall efficiency will increase if domestic trading systems are linked to each other" and that "as an additional benefit, linked trading schemes with harmonized prices eliminate any competitive distortions that might arise from different pre-link carbon prices between linking partners. Linking the emerging domestic systems could also be politically significant since they would serve to underpin the top-down approach of the international climate regime by a bottom-up process which might further strengthen the international regime via bi- and plurilateral agreements" (page 2).

In this context, the United Nations Development Programme is supporting the development of the present Policy Paper, which aims to position Albania in a competitive manner in the global carbon markets, in general, and the CDM, in particular.

1.2. Vision of the Policy Paper

Today, the most important players in the CDM⁵, on the supply side, dominate the market based on the sheer scale of their economies and their CDM operations. Albania cannot compete as CDM projects opportunities in Albania are limited both in number and in credit generation scale. However Albania has favourable conditions to attract carbon market investors in generating projects based on the quality and reliability of its projects and carbon assets.

Consequently, the Vision of this Policy Paper is that Albania *will be placed competitively in the CDM and future carbon markets based on the high quality of Albanian project activities and in the high standard of the emissions reductions obtained in these activities.*

1.3. Primary Objective of the Policy Paper

Based on the analysis of the present context in carbon markets and the Vision mentioned above, the primary objective of the present Policy Paper can be formulated as follows: *to competitively maximize the effective development of the potentials of Albania in the CDM and in carbon finance, while minimizing transaction costs and contributing to the sustainable development of the country.*

1.4. Secondary objectives of the Policy Paper

To attain the primary objective of this Policy Paper, Albania and its DNA will have to address effectively the barriers that hinder the operation of the CDM in the country, among them, the lack of institutional capacity and technical expertise, insufficient exposure of the country to international investors, and the involvement of the principal stakeholders in the public and private sector in the implementation of the CDM. Secondary objectives of the present Policy Paper will address these barriers as follows:

- a. Streamline the institutional and procedural design for CDM project activities, including the fiscal treatment applicable to carbon assets in the country, aiming to attain a flexibility that allows the DNA to effect adjustments to these areas as needed, according to the identified necessities of improvement.
- b. Establish the guidelines to develop the technical capacities for the implementation of CDM project activities in the field, including the methodological expertise and the necessary knowledge to negotiate favourable deals for the host country partners.
- c. Define the tactical approaches for undertaking initiatives and actions to raise public awareness and information on the modalities and procedures of the CDM and the benefits and costs of carbon finance.
- d. Characterize the best courses of action to increase the visibility of Albania to carbon finance investors and project implementers, as well as the exposure of Albanian projects as quality activities.
- e. Lay the foundations to the design of effective agreements between Albania and institutional multilateral, bi-lateral and private lenders and financiers, to provide a consistent flow of finance for the carbon market initiatives in Albania.
- f. Determine actions and processes to involve the business sector in Albania in the CDM, and to build managerial competence for participation in carbon finance in present and future offset schemes.

⁵ China, with 84% of the total volume traded in 2008, India, with 4% of the volume and Brazil, with 3%. Other aggregated Asian economies reach an equivalent volume to India alone.

II

Brief analysis of the international carbon market

2. Brief analysis of the international carbon market

Until the unveiling of the financial crisis in September 2008 and the onset of the first phase of the global economic recession, the carbon market had been growing exponentially for five straight years, if we take 2003 as the formal year of establishment of this market⁶. Global recession established new conditions for the development of carbon markets, an arrest in the growth of project-based mechanism transactions in the short term, and a new set of expectations from the regulatory and market point of view for the medium term

2.1. Effects of the current economic recession on carbon markets

As expected, the global economic recession had noticeable effects in carbon markets. According to Capoor and Ambrosi, “prices in the European carbon markets started to decline late last summer from their highs of July 2008, on the back of lower oil and energy prices and a deteriorating economic outlook. Demand for carbon allowances fell sharply in late 2008 and early 2009 as the recession reduced economic output, resulting in much lower emissions than had been expected”⁷.

As an immediate effect, according to these authors, the global recession has led to lower overall emissions and an easier path to Kyoto compliance for Annex B Parties. It has also resulted in a smaller expected shortfall within the EU ETS, and has reduced the need of EU installations to contract carbon credits for 2008-12 compliance at a time of insufficient clarity for them to start buying and banking large volumes of post-2012 credits⁸. As a result of the financial credit contraction, not only is financing more difficult to find for CDM and JI projects, but also the banks and financial players are less likely to engage in meaningful levels of project origination.

According to Point Carbon, “The carbon market in 2009 will be marked by the question of how the global economic slowdown will affect trading”⁹. The report notes that Point Carbon projects continued year-on-year carbon market growth, but that their predictions imply that trade volume is levelling off compared to the last months of 2008. At the same time, it is estimated that the carbon market is headed toward its first year of contraction in total market value. This indicates specifically that the expectations of major players in carbon markets are also low for the next year or two for a number of reasons, which include adjustments to the downside in economic output globally, regulatory incertitude with pending UNFCCC negotiations and the outcome of the US cap-and-trade proposal and the development of other markets.

⁶ For the following two subsections, the analysis was based on Capoor and Ambrosi, 2008 and 2009, and Tvinnerein and Kand, 2009. The former report a growth in value of total carbon credits from US\$ 31 billion in 2006 to US\$ 63 billion in 2007 and approximately US \$ 126 billion in 2008. The value of these transactions was, respectively, 1,745 Mio. tCO₂e, 2,984 Mio.tCO₂e and 4,811 Mio tCO₂e.

⁷ Capoor and Ambrosi, 2009, page 2. Other market analyses, like those of Point Carbon and the Thompson Reuters Review, generally agree with this vision, but have not been made public in their final versions yet.

⁸ Ibidem, page 57.

⁹ Tvinnerein and Kand, 2009, page 18.

Table 1: Annual Value and Volume Variation in Carbon Assets

Years	Primary CERs				Allowances Markets			
	Value Mio. US\$	%D	Volume Mio. tCO ₂ e	%D	Value Mio. US\$	%D	Volume Mio. tCO ₂ e	%D
2006	5,804		537		24,699		1,134	
2007	7,433	28.07	552	2.79	49,361	99.85	2,984	163.14
2008	6,519	-12.30	389	-29.53	92,859	88.12	3,276	9.79

a. Source: Analysis performed based on data contained in Capoor and Ambrosi in its 2008 and 2009 editions

2.2. The CDM market under the current recession

At this moment, it is also evident that the offset markets have experienced the effects of global recession more than the allowance markets. In particular, the primary CDM market has seen a market downturn in 2008 as compared with 2007, as seen in Table 1¹⁰. While the primary CER experienced an increase of 28.07% in value and 2.78% in volume, from 2006 to 2007, the decrease from 2007 to 2008 was of 12.39% in value and 29.53 in volume from 2007 to 2008.

On the contrary, the allowances markets went from an increase of 99.85% in value the period 2006-2007 to 88.12% in 2007-2008, and an increase in volume of 163.14% and 9.78% for the same periods, respectively. The figures for the volumes transacted suggest a deceleration of market growth, which updated data for 2009 might confirm.

The report of Point Carbon about expectations highlights that the principal market actors believe that “a pronounced decline will be seen in the CDM and JI project markets in 2009, as both are projected to fall by almost half in volume terms”¹¹. Market participants estimate that the primary CDM market is set to fall from 549 Mt in 2008 to 300 Mt in 2009, whereas JI is expected to decline from 72 Mt to 40 Mt over the same time span. Current economic conditions and uncertainty about the project-based mechanisms in the post-2012 period depress volumes in these markets.

However, most analysts agree that, despite the economic slowdown, each of the Kyoto Mechanisms (and, in particular, Assigned Amount Unites trading and CDM) will likely be needed to bridge the Kyoto Gap between the QELROs and the existing emissions reduction effort

The question then is how much the current CDM actors will deliver to bridge this gap. According to Capoor and Ambrosi¹², as of March 2009, there are more than 4,500 projects in the CDM pipeline, which have the theoretical potential of delivering about 2.9 billion CERs by 2012. However, the continued growth and viability of the CDM pipeline has slowed down in an environment where securing project financing becomes more difficult and clarity is still lacking on the post-2012 front. Analysts have been revising downward their projections of expected CER deliveries by 2012 to reflect both the lower inflow of new projects into the pipeline as well as the bottlenecks along the project cycle. These include the regulatory delays caused by the greater scrutiny of the CDM EB, which has led to a higher rate of project rejection.

This apparent gap in the CDM potential for CER delivery offers a new opportunity for new players like Albania to mark presence in the CDM market with high-quality projects.

¹⁰ Primary CERs are those certified emissions reduction credits acquired directly by a buyer from the developer of the project in a primary transaction.

¹¹ Ibidem, page 19.

¹² Op. Cit, page 57.

2.3. Other prospective offset and greening scheme markets for Albania

At present, there are a number of other offset and greening schemes and markets, where Albania could find good opportunities of participation and marketing of its generated carbon credits, in the presence of a downturn of the CDM or, in the near future, as an alternative in prices or deal structure, should the CDM become too restrictive on unilateral projects.

Voluntary carbon market is increasing in size and volume. A variety of voluntary carbon standards have emerged. The advantage of voluntary markets is that they are not object to the same level of scrutiny, management, and regulation as the projects under CDM. In this way project developers have more probabilities to implement projects that might otherwise not be viable under CDM. A variety of voluntary carbon standards have emerged. Most of these standards require that the emissions offsets are real, (have happened), additional (beyond business-as-usual activities), measurable, permanent (not temporarily displace emissions), independently verified and unique (not used more than once to offset emissions). The most well known standards are the Voluntary Carbon Standards (VCS), Gold Standard, VER+, Chicago Climate Exchange (CCE), Voluntary Offset Standard (VOS), Climate Community and Biodiversity Standard (CCBS), Plan Vivo.

Maybe the most important prospective carbon market is the proposed US cap-and-trade system, also known as Waxman-Markey for its proponents. The strategic importance for this initiative is high, because, in time it could double and triple the CDM market and include initiatives in forest conservation (REDD). On May 15, 2009, U.S. Representatives Henry Waxman and Ed Markey formally introduced the Clean Energy and Security Act (HR 2454), a legislative proposal to establish a national renewable energy standard and an economy-wide cap and trade program. This proposed bill, as of 30th June 2009, has passed in the House of Representatives and been sent to the Senate of the US for final approval.

The draft Bill requires U.S. national emissions to be 3% below 2005 levels by 2012 and 17% below 2005 levels by 2020. It also creates an emissions trading scheme covering about 85% of 2005 U.S. emissions, with the same GHG emission reduction targets as the national emission targets.

The Waxman-Markey Bill (W-M Bill) allows emissions trading “with comparable international programs and offsets, both domestic and international”. The W-M bill, which does not automatically accept all CDM-certified credits, however provides generous allowable limits of two billion tons annually from domestic and international offsets, and international allowance trading.

The US EPA analysis of the W-M Bill assumes that relatively inexpensive domestic and international offsets (as well as international allowance trading and internal abatement) will supply significant volumes of required emission reductions under the W-M policy. The W-M bill allows compliance to be met from offsets up to approximately two billion tons annually, split equally between international and domestic offsets, significantly more than the projected annualized reductions. In comparison, the current European 20-20-20 proposal allows for 1.6-1.7 billion tons for the entire period 2008-2020¹⁴. The World Bank report analyzes that “even with HFC and other industrial gas offsets, the CDM has never contracted much more than 600 MtCO₂e in a single year or brought forward more than 80 MtCO₂e in annual emission reductions expected from projects registered in any year... this higher level of demand will require a serious analysis of how to scale up the possibility of offsets and credits from developing countries”¹⁵.

¹³ Information collected in the VCS Program website at <http://www.v-c-s.org/about.html>.

Maybe the principal of these schemes is the Voluntary Carbon Standard (VCS). The VCS is a Program founded to standardize and provide transparency and credibility to the voluntary offset market, with strong additionality and baseline requirements, similar to those of the CDM Executive Board. Other voluntary schemes have common characteristics with this one¹³.

Work to develop the Voluntary Carbon Standard was initiated by The Climate Group, the International Emissions Trading Association and the World Economic Forum in late 2005. Version 1 of the VCS was released on 28 March 2006 as both a consultation document and a pilot standard for use in the market. VCS version 2 was released in October 2006 as a consultation document and did not yet replace Version 1 as the market standard but is expected to do so in the near future. Nevertheless, it is important to note also that the pure voluntary market is limited in its size and that much of the current volume in this market is pre-compliance.

¹⁴ Capoor and Ambrosi, 2009, page 19

¹⁵ Ibidem.

In respect of how the W-M bill could affect the demand of international carbon credits, the bill authorizes the Environmental Protection Agency administrator, in consultation with the Secretary of State, to issue offset credits for reductions from projects in nations that have not capped emissions, if the reductions are recognized by a body established pursuant to the UN Framework Convention on Climate Change (UNFCCC) that provides assurances of integrity equal to or greater than the U.S. domestic offset program. From this it can be interpreted that the US government will install a procedural filter to disregard carbon credits projects of low quality. This is in turn an incentive for carbon credits generating countries like Albania to increase the environmental excellence of its projects.

In addition, activities aimed at the reduction of deforestation, or RED(D) are included in the system. Private sector purchases of RED(D) credits will be subject to overall limits on offsets and quality rules, including discounting. To participate, developing countries will need to implement and monitor national deforestation reduction activities, and sub-national RED(D) activities are to be credited only from countries that have adopted a national deforestation baseline.

Other cap-and-trade schemes in the US, with a greater or lesser operative degree of offset mechanisms, are the Regional Greenhouse Gas Initiative (RGGI), the Chicago Climate Exchange (CCX), the California Climate Action Reserve and the Western Climate Initiative (WCI). The latter covers a group of seven U.S. states (Arizona, California, Montana, New Mexico, Oregon, Utah and Washington) and four Canadian provinces (British Columbia, Manitoba, Ontario and Quebec). Each of these schemes has developed their offset schemes differently. In the case of the passing of the W-M Bill, most of these schemes will have to fuse with the federal cap-and-trade system.

In any other scenario, a more in-depth analysis of its characteristics, advantages and restrictions will need to be performed on a case-by-case basis, as well as with the national systems in Canada, Japan, Australia and New Zealand.

In any case, it is necessary to acknowledge that the Albanian DNA must realistically consider also alternatives and courses of action for the participation in offset schemes besides the CDM, given the fast developments of international carbon markets.

2.4. Competitiveness conditions for an efficient participation of Albania in carbon markets on the short term

Based on the analysis of the present carbon market conditions above, we could establish a series of competitiveness conditions that Albania will have to meet in the short term to reach an expectant position in the CDM market and other offset markets.

These conditions can also be presented as a sequence of “*competitiveness guidelines*”, as follows:

- a. Efficiency and “invisibility” of the approval process and the fiscal treatment for carbon finance investments, which means, rather than making these procedures over-easy, to present them with transparency, so that the private investors and internalize and factor them in their economic expectations for their project activities in Albania; this also entails a predisposition to adjust and streamline these procedures according to market requirements, as identified in the guideline under c) below
- b. “*Branding*” or differentiation of the Albanian project activities, on the base of quality of the initiatives and reliability of the emission reductions and the carbon finance operators, so that any CERs or offsets coming from Albania are easily identified as easily marketable assets;
- c. Flexibility in the predisposition of participation in different carbon finance markets and in the inclination to streamline processes and requirements as needed, aiming to obtain the maximum financial and sustainable development benefits from participation in these markets;
- d. Visibility and exposure to international investors, based in the previous three conditions and in the systematic promotion work of the Albanian DNA in international fairs and forums;
- e. In-country managerial proficiency for proposing, implementing and marketing project activities for the CDM and other offset schemes, attained through the construction of all the previous competitiveness conditions and through managerial capacity building.

III

The National Framework for the CDM in Albania

3. The National Framework for the CDM in Albania

This section will schematically present the present framework for the CDM in Albania, in the institutional, legal and policy fields, which form the basis for the strategic formulation in Section 6 below.

3.1. Institutional arrangements

Since the 1990s, Albania has undertaken its institutional modernization including the Government structures that address the policy fields of finance, energy and the environment. Part of this effort deals with the formulation of environmental management and climate change policies.

Albeit only lately, Albania has been taken decisive steps in establishing an institutional framework for the promotion and approval of CDM project activities in the country, that can also serve as a foundation for the participation in alternative carbon markets and offset schemes.

In Albania, the responsibility of the Designated National Authority (DNA) to approve CDM projects falls upon the Ministry of Environment, Forestry and Water Administration (MoEFWA) which is the National Body responsible for the national environmental management and policy. The MoEFWA nominated the UNDP Climate Change Programme to support the DNA taking into account Programme's experience in serving as a National Focal Point to the UNFCCC and Kyoto Protocol treaties and the assistance the Programme provided to the MoEFWA in implementation of the UNFCCC and Kyoto Protocol. In addition, the Government will ensure effective cooperation with other relevant Ministries¹⁶.

Albania has also defined the institutional roles and institutional structure of a steering and approval committee and a technical secretariat, as described in sub-section 4.2 below.

3.2. Legal arrangements

The Climate Change Convention was ratified on 3rd October 1994 and the instrument of ratification was deposited on 1st January 1995, while the Kyoto Protocol was ratified by Albania on 1st April 2005. Legal arrangements for the establishment of a DNA structure were initiated by the introduction of the proper legal documents at various levels to formalize the legal framework for DNA operation in the country. The designation of the official DNA was initially formalized through a letter dated of July 2005 of the Minister of Environment of Albania to the UNFCCC and followed latter by a specific article of the amendment of July 2007 of the *"Law on forests and forest services"* (Law No. 9791).

The general framework of environmental management and pollution control in the country is based on the main law on *"Environmental protection"* No. 8364, amended on 2nd July 1998, which was lastly amended by Law No. 9890 dated 20th March 2008. The Law addresses all components of the environment. Other laws and secondary legislation were adopted to assist the implementation of the environmental policy.

¹⁶ See **Government of Albania – Government of Austria – UNDP. Programme for Building Capacity to Access Carbon Finance in Albania. Electronic Copy, Tirana, n/d and Stoycheva, Daniela: On proposal on DNA institutional set-up, National CDM review and approval procedures and proposal for outreach activities of the DNA in Albania, Tirana, Albania, UNDP, June 2008, for these and other definitions, as well as the Albanian Government Decrees and Decisions** quoted below.

To finalize the structure of the DNA, three legal instruments were approved. The first one is Decision Nr. 1553, dated 26th November 2008, on the establishment of the DNA, designing its structure, the respective roles and the service fees for LoA. The second one is Internal Order Nr. 24 of the Minister of Environment, Forestry and Water Administration, dated 10th February 2009 defining the structure of the DNA Committee and Secretariat and designating its members. The third one is the Regulation of the Ministry of Environment, forestry and water Administration No.1, dated 25th March 2009 “On CDM Projects review and approval procedures”.

Decision Nr. 1553 establishes the Minister of Environment, Forests and Water Administration (MoEFWA), “as a specialized body at the Ministry to examine and approve Clean Development Mechanism projects”. The Decision also outlines the structure of the DNA with a committee with seven members and a technical secretariat with four members. Internal Order No. 24 designates by name the participants in the DNA Committee and the Technical Secretariat, and states that the “Committee and the Technical Secretariat have the responsibility of implementing the decision of the Council of Ministers No. 1553”.

Regulation Nr. 1 of the MOEFWA details the following elements: The roles of the DNA Committee, of the technical secretariat, a projects unit and an IT and communications unit; the CDM review and approval procedures, the application of national sustainable development criteria, the structure of the official forms for review and evaluation and the payment of the tariff to this end. The complete version of this Regulation is attached as Annex 2 in Section 8 of this document. A more minute description of the process can be found in Section 4 below.

The legal framework for the energy sector comprises of a relatively large number of different legal instruments, of which the fundamental are the following:

- Law on Energy Efficiency (No 9372 of April 27, 2005)
- Law on Power Sector (No 9072 of May 2003);
- Law on Electricity (No 7962 of July 1995);
- Law on Regulation of Power Sector (No. 7970 of July 1995);
- Law on Energy Conservation in Buildings (No. 8937 of September 2002);
- Law “On creating soothing conditions to build up new sources for electricity generation” (No.8987 of October 2002);
- Governmental Decree for Energy Building Code (No. 38 of January 2003);
- Governmental Decree for Strategy of Energy (No. 424 of June 2003);
- Law on Electrical Police (No. 8637 of July 2000)¹⁷.

As mentioned above, this legal framework is complemented by the Law on Environmental Protection. Law on forests and the forest service (No. 9385, date 04.05.2005, amended in 2006, 2007, 2008); Law on city planning (1993, amended in 1998, 2008); Law on hunting and wildlife protection (1994, amended in 2004 & 2008); Law on fishing and aquaculture (No. 7908, date 05.04.1995, amended in 2002, 2008); Law on pastures fund (1997, amended in 2007, 2008); Law on water resources (1996, amended in 1998, 2000, 2001); Law on water supply and sanitation regulation (1996); Law on urban planning (1998, amended in 1999 & 2003); Law on civil emergencies (2001); Law on protected areas (No. 8897, date 16.05.2002, amended in 2008); Law on air

¹⁷ See the preceding footnote and especially the proposal of the institutional set-up for the Albanian DNA from Stoicheva, 2008.

¹⁸ The objective of the draft law on the percentage tax on CERs is not clear, though, in respect of the tax object. On the one hand Art. 3 of the draft law imposes on the project developer the obligation to transfer to the account of Albania in the CDM Registry a percentage of CERs issued internationally. On the other hand, art. 7 of the draft law establishes that the project developer is obliged to submit to the DNA within 10 days after signing the agreement for selling CERs from the CDM project an original version or a notarized copy of the agreement. This would suggest instead that what the Albanian legislator seeks is not to retain a percentage of CERs, but rather a percentage of the proceedings obtained from the sale of these CERs. If we attend though to the title of the draft law "DEFINING THE CREDITS OF CERTIFIED EMISSION REDUCTION FORWARDED TO THE DESIGNED NATIONAL AUTHORITY ACCOUNT IN CLEAN DEVELOPMENT PROJECTS UNDER KYOTO PROTOCOL" it would seem as if the final aim is the withholding of a percentage of CERs.

Whereas it is legitimate for Albania to require administrative charges derived from its administrative work in favour of the approved CDM projects, retain a percentage of CERs in favour of the Government of Albania might not be the optimum because certain critical factors should be analyzed beforehand:

1. If the objective of Albania is to provide project developers with favourable conditions to start developing CDM projects in the country, retaining a percentage of CERs generated by the project might be, in the majority of cases, a burden for project developers as it might cancel some of the financial viability of the project. Certain countries such as China or Panama are indeed taxing CDM projects. However, in contrast to Albania both countries have a consolidated portfolio and a generous pipeline of projects and governmental taxes will not discourage project developers of continuing its CDM activities in these countries. Albania has not yet registered a single CDM project, and the Albanian Government should analyze if increasing at this stage the perception of unnecessary burdens on project developers might not hamper the

protection from pollution (No. 8897, date 16.05.2002); Law on protection of marine environment from pollution and damage (No. 8905, date 06.06.2002); Law on the protection of Transboundary Lakes (No. 9103, date 10.07.2003); Law on Environmental Impact Assessment (No. 9010, date 13.02.2003, amended in 2008); Law on chemical substances and preparations (No. 9108, date 17.07.2003); Law on environmental treatment of solid waste (No. 9010, date 13.02.2003); Law on environmental treatment of polluted waters (No. 9115, date 24.07.2003); Law on protection of biodiversity (No. 9587, date 20.07.2006) Law on administration of hazards waste (No. 9537, date 18.05.2006); Law on environmental noise assessment and administration (No. 9774, date 12.07.2007); Law on environmental protection from transboundary impacts (No. 9700, date 26.03.2007).

Alternatively, two other legal instruments are being proposed at time of drafting of the present Policy Paper. One is a draft Decree defining the treatment of CER in the country and establishing a percentage tax on CER proceeds from project activities in the country, with a level to be defined yet. The second one is a draft amendment to the Law on Value Added Tax Nr.7928, dated 27th April 1995, adding CDM project activities to this fiscal treatment¹⁸.

Albania has also signed bilateral agreements for the implementation of the Kyoto Protocol, most notably with Italy and Denmark, and these agreements are in full implementation.

3.3. Policy and promotional measures

The Ministry of Environment, Forestry and Water Management, created in 2005 from the Ministry of Environment, is the highest governmental body responsible for environmental protection and formulation of environmental policy and legislation in the Republic of Albania. This Ministry is responsible for the formulation of environmental policy in the country.

The MoEFWA is also the National Focal Point for the UNFCCC and the KP. In 2007, the Ministry formulated the Environment Sector and Cross-Cutting Policy Paper (NSDI), which aimed, among other goals, to the *“reduction of greenhouse gas emission and ozone-depleting substances with the aim to contributing to prevention of climate changes”*²⁰.

The NSDI also foresees that the most powerful instrument for reducing emissions is mainstreaming the objective of reducing greenhouse gas effects in the decision-making process at various levels, especially in Government and Industry. Such measures need to be accompanied by amendments to the legal framework and an introduction of economic instruments in order to encourage reduction of greenhouse gas emissions and use of renewable energy resources²¹.

There are other governmental organisations, which have significant role in the implementation of the environmental policy, including climate change policy and CDM project activity implementation: the Ministry of Economy, Trade and Energy, the Ministry of Agriculture, Food and Consumer Protection, and the Ministry of Public Works, Transport and Telecommunications.

The long-term energy policy of Albania is presented in the National Energy Strategy (NES), which aims at increasing the security of energy supply through optimisation of supply and efficient consumption, while ensuring environmental protection. According to the NES national targets have been set for energy savings and increase of renewable energy sources by 2015, which are expected to bring a GHG reduction of 4 million tCO₂e.

Albania has also developed an *Environmental Sector and Cross-Cutting Strategy 2007 - 2013 (NSDI)*, in which there are policy guidelines and goals for the sectors of forestry, waste management and industry and transport, but no specific emission reduction or carbon uptake targets were defined for each of these sectors. The Terra Carbon study identifies ca. 90,000 ha. of land in Albania that is suitable for afforestation / reforestation, while the assessment of carbon finance potential included in the PRODOC of the present project gives a potential of 700 Mio, tCO₂e for the LULUCF sector and 270 Mio, tCO₂e for the waste management sector (See Sub-section 5.1 below).

2. Retaining a portion of carbon credits might imply extra burdens for Albania in order to sell the retained CERs. In order to obtain optimum proceeds from the retained CERs, Albania needs to offer them to potential buyers in carbon markets. In order to obtain the maximum benefit from the CER sale, this task would most probably require from operators of this sale in the Albanian government a deep knowledge of carbon market situation and a total dedication to the trading business. Additionally, given that these retained CERs would be treated as governmental assets, its sale might require the establishment of some kind of public tender, which might be an internal encumbrance exercise for the Albanian Government. Finally, considering that the CER percentage retained from the CDM projects would most likely be low, without economies of scale, the sale exercise might not be of benefit for Albania. Alternatively to the retention of carbon credits, Albania could opt for:

1. Requiring to the project developer a small percentage of the revenues obtained from the sale of CER. This solution would only be appropriate if the percentage is perceived by project developers as being adequate and not diminishing its potential profit.
2. Imposing administrative charges for the concession of the letter of approval. Administrative charges could be tailored to the size of the project and its CER generating capacity. Small projects would thus be taxed less than big CDM projects.

Either way, Albania should clarify as soon as possible the taxing of CDM and carbon credits in its territory and also clarify the VAT situation of these assets. The text of the draft decree and its lack of consistency might have the undesired effect of creating reserves and insecurities for potential CDM project developers.

²⁰ Albanian Ministry of Environment, Forestry and Water Administration, 2007, page 22.

²¹ Ibidem, page 24.

3.4. Sustainable development aspirations and tools

As in many other Non-Annex I countries, the common aspiration in Albania is that CDM project activities could contribute to the sustainable development of the country in a sizeable manner. This ambition is not always easy to operationalize, because the concept of sustainable, although it is well defined in theory, is more difficult to grasp in current practice and sometimes has different meanings for different actors. If there is to be a proposed use of a quantified criterion of sustainable development, this should be reached by consensus.

In the case of Albania, the proposed evaluation method is based on the Multi-Attribute Utility Theory. This evaluation tool uses a scoring system with assigned weights to the criteria according to their assumed contribution to sustainable development. This evaluation method is considered to minimize the subjectivity of the assessment of any eventual intervention. However, it still involves subjectivity in regard to the definition of the specific weight of different criteria according to the preferences of actors and host countries²².

The proposed method for Albania consists of the following steps:

1. Definition of the criteria and relevant sub-criteria for sustainable development;
2. Definition of the indicators for each sub-criterion and their types;
3. Determination of the weight for each criterion and relevant sub-criteria; and
4. Determination of the scores for each sub-criterion and the overall score.

Regarding the definition of the criteria and sub/criteria, the following elements were already selected:

Environmental Criteria

- Contribution to mitigation of climate change
- Other environmental benefits e.g. improvement of air, water, and soil quality, biodiversity protection, forest management, etc.
- Manner of utilization of natural resources and conservation of local resources

Economic Criteria

- Financial returns to project entity(ies)
- Transfer of new technology, including renewable and energy-saving technology
- Attraction of foreign investment

Social Criteria

- Poverty alleviation
- Capacity development for stakeholders
- Compliance with the procedure defined for public consultation
- Employment generation

National policy criteria

- Contribution to and compatibility with Governmental policies and priorities at national/regional/sectoral levels

Two of the above criteria are excluding criteria, which mean that a negative answer to any of them excludes the project from further evaluation. These are the contribution to mitigation of climate change and the contribution to and compatibility with Governmental policies

²² The description of this method is included in Regulation No. 1, dated 25th March 2009, on the CDM project review and approval procedures, Chapter VI, Articles 14 to 16..

Taking into account the preferences in Albania, each of the SD criteria was assigned a weight in accordance with its contribution to achieving sustainable development, as follows:

- Environmental – 40%;
- Economic – 30%;
- Social – 15%; and
- National policy – 15%.

In a similar way, weights are assigned to the sub-criteria up to the overall weight of the respective criterion. Each of the SD sub-criteria will have a score from -2 to +2 depending on the significance of the assumed impact of each project activity in each one of the sub-criteria. The maximum score that a single project can achieve is 2, and the minimum is -0.38. A project activity with a score below 0.8 should not be recommended for approval.

3.5. CDM opportunities under the EU accession process

Albania is currently a potential candidate for European Union membership. Albania and the European Union signed the Stabilisation and Association Agreement (SAA) in 12 June 2006. The SAA establishes a framework of mutual commitments on a wide range of political, trade and economic issues. On 18 February 2008 the Council adopted a new European Partnership with Albania²³.

Once Albania reaches the status of a candidate country and during the accession process, Albania will negotiate with the EU Commission the different areas of EU legislation that need to be transposed and implemented nationally (*“the acquis communautaire” or the “acquis”*). EU climate change policies are integrated mainly both under the EU environmental policy and EU energy policy. EU environmental law and EU environmental energy make thus part of the *acquis communautaire* that Albania need to integrate in its domestic legal framework by the time of the full accession.

Under the existing pre-accession legal instruments, no direct reference is made to climate change. In its Article 108, the SAA includes a mere reference to environmental considerations²⁴. The European Partnership by which the EU provides guidance to the Albanian authorities on reform priorities provides some details on the environmental area. However it does not mention directly climate change policy measures but it rather addresses priority key areas of environmental concern in Albania²⁵. The last progress report for Albania corresponding to 2008 in which the Commission assesses the progress of Albania in adopting and implementing EU legislation contains a direct reference to climate change policies. In this sense, the Commission notes that Albania has made some progress in respect of Clean Development Mechanism²⁶. The progress report mentions though in respect of energy policies, the absence of implementation of the energy efficiency law of 2005, the relative low progress in the hydroelectric sector and the lack of development of other renewable energy sources remains.

The integration of EU environmental and energy policy into the Albanian²⁵ legislative

²³ 2008/210/EC, Council Decision of 18 February 2008 on the principles, priorities and conditions contained in the European Partnership with Albania and repealing Decision 2006/54/EC; Official Journal L 080, 19/03/2008 P. 0001 - 0017

²⁴ SAA, Article. 108:

Environment

1. The Parties shall develop and strengthen their cooperation in the vital task of combating environmental degradation, with the aim of promoting environmental sustainability.
2. Cooperation shall mainly focus on priority areas related to the Community acquis in the field of environment.

²⁵ European Partnership with Albania, Annex Art. 3.1:

- Strengthen administrative capacity and coordination at national and local level.
- Fully implement legislation on environmental impact assessment.
- Adopt a strategy further to approximate environmental legislation with the acquis and implement existing legislation properly, especially as regards enforcement.
- Continue to address the environmental hot spots at the Sharra solid waste landfill and the Patos-Marinez oil extraction area.
- Further develop and implement the national water and sanitation strategy and the rural strategy for water supply and sewerage and develop and start implementing a strategy for progressive approximation to the acquis in the area of water supply and sanitation.
- Implement international conventions to which Albania is party in the field of nature protection.
- Establish a full inventory of hot spots and continue efforts to address hot spots already identified.
- Reduce pollution produced by the Balsh refinery, including discharges into the River Gjanica, and take measures to tackle water pollution in general.
- Strengthen environmental monitoring and ensure sufficiently dissuasive sanctions against polluters.
- Continue to implement regional and international environmental commitments.

²⁶ Final Commission Staff Working Document Albania 2008, Progress Report SEC(2008) 2692

framework should be seen as an opportunity to implement CDM projects. Indeed, most of the main areas of the environmental and energy acquis are also natural areas for the development of CDM projects. Albania might decide that in the implementation of the environmental and energy acquis the CDM component will be integrated. It is also relevant to note that the fact that Albania would implement CDM projects on areas on which it adapts EU legislation into its national framework will not jeopardize the additionality requirements of the CDM.

In the following we provide examples of EU legislation pieces that need to be integrated into the Albanian legal order and the corresponding eventual types of CDM projects applicable in that area.

EU acquis legislation	Type of CDM project
Renewable energy targets	-CDM project on wind energy, solar heating, hydro power, biomass
Waste management	-CDM projects on landfill methane extraction, manure treatment
Energy efficiency targets	-CDM energy efficiency projects in public and private buildings, infrastructure
Reduction of green house gases in agriculture and forestry	-CDM forestry projects

Albania should consequently seek to join the incorporation of EU law with the implementation of CDM projects. In the negotiation with the EU on the different legislation pieces Albania should request that the EU financial aid under the instrument for pre-accession assistance (IPA) targets also the implementation of CDM projects.

3.6. Albanian participation in the EU and the prospective for “graduation”

As it is well known, Albania is getting ready for accession as a European Union member and the country is presently getting assistance for the harmonization of legislation with the EU legislation. This can raise the following questions:

- A. Does the EU require candidate countries to change its status from non Annex I country to Annex I country as a pre-condition for EU accession; and
- B. Does EU integration imply that Albanian projects would no longer be eligible as CDM project, but rather as JI projects?
- C. Can Albania comply with the requirements of the EU emissions trading directive keeping the status of Non-Annex I country?

The answers to these questions are given below:

A. Is Annex I status a condition for acceding in the EU?

The European Union as party to the Kyoto Protocol made use of Article 4 of the Kyoto Protocol that allows groups of countries to accept a common emission target and to redistribute that target internally (“EU bubble”). The EU committed itself to

reducing greenhouse gas (GHG) emissions by an overall target of 8% below 1990 levels by 2008-2012, in the first commitment period. This target only covered though the fifteen Member States that comprised the EU at the time the Kyoto Protocol was agreed. From 2012 on, the EU 27 will have international commitments and also a new internal burden sharing agreement.

Countries that acceded the EU after the EU burden share agreement was signed in 2002, are not part of the EU bubble. Most of the new EU countries are Annex I countries with emission reduction targets under the Kyoto Protocol. However, both Malta and Cyprus acceded to the EU in 2004 keeping its status of Non Annex I countries under the UNFCCC and therefore, without no specific reduction targets for 2008-2012 inscribed in Annex B of the Kyoto Protocol. All the current EU member states will assume international commitments from 2012 on, and will negotiate an internal burden sharing agreement. Although there is no concrete time for the effective incorporation of Albania into the EU, this one is not supposed to happen before 2017.

Consequently there is no necessity for Albania to modify its non Annex I status as a condition to be part of the EU, according to current EU law. From this perspective Albania shares the same position of other countries seeking EU accession and having a Non-Annex I status, such as Macedonia, Serbia and Bosnia and Herzegovina. It is clear though that the EU will press to all its member states to modify its non Annex I status at certain point. This is the case with Cyprus and Malta that from 2012 they will be included under the new EU bubble and will be obliged to review its current UNFCCC status.

B. Does the EU law prevent the implementation of CDM projects during the pre-accession or once Albania accedes fully the EU?

EU integration process does not prevent Albania to implement CDM projects. CDM projects, whose commissioning is initiated under the pre-accession phase and extend their crediting period to a phase in which Albania will be under the EU, can continue to generate carbon credits, provided the country keeps to Non-Annex I status. Cyprus offers a good example of a CDM country, member of the EU, with registered CDM projects.

Following EU accession and assumption of EU bubble emission reduction commitments and international obligations, credits of CDM projects registered under a Non Annex I status, will not be considered CER credits. From this perspective, Albania should pay particular attention to current international negotiations as how to deal with CDM projects when they are no longer considered as coming from Non-Annex I countries. This is one of the aspects that will most likely be regulated under a new international agreement.

C- ETS and CDM status

A question related with the implementation of EU climate change acquis by Albania is the implementation of the so-called Emissions Trading System directive²⁷. Under the ETS, European installations falling within the list of sectors indicated in the text of the directive (in general, large plants in sectors such as power generation and heating industries, oil refineries, coke ovens, ore smelters, steel, cement, glass, tile, ceramics, pulp and paper) will receive, yearly, a certain amount of emissions allowances, one allowance being a permit to emit 1 tonne of CO₂ equivalent. Each installation needs to surrender, every year, a number of allowances corresponding to its generated emissions. Those installations with emissions below their assigned

²⁷ Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community.

pollution amounts may sell emission rights to entities with excess of emissions. Operators of installations that are not able to surrender sufficient allowances need to pay financial penalties.

The ETS is a European mechanism, that intends to support the instrument the EU and its member states have implemented, to meet the Kyoto targets. Even if Albania does not have Annex I status and it is not Annex B of the Kyoto Protocol at the moment of acceding the EU, the implementation of the ETS will be an obligation as part of the integration of the *acquis communautaire*. There is no specific clause under the ETS dealing with the requirement of being Annex I country to fulfil the obligations of the ETS directive. It might be helpful in this context to check the experience of Cyprus and Malta. Both countries are an example of member states that, despite being non Annex I countries and not being included in the Annex B of the Kyoto Protocol, have fully implement the ETS directive and applied its provisions to its national installations.

In this case, we could be faced with a more or less long period in which the CDM could still contribute, in terms of emission reductions and climate-friendly technology transfer, to the development of Albania. Nevertheless, by the end and after this levelling period, we imagine that Albania would be under some pressure to change its status in the face of the KP and of any successor treaty in climate change that might derive from the negotiations to be conducted this year in Copenhagen (or afterwards).

At some point in time in the future, and maybe earlier than some other Non-Annex I countries, hopefully for the fact of having achieved an expectable stage of development, Albania will have to commit to national emission reduction or limitation commitments, and maybe leave the CDM, for JI and the direct trade of emissions. The present Policy Paper, in considering this foreseen development, will also lay the necessary guidelines in case Albania needs to “graduate” from CDM into JI and direct emissions trading.

Furthermore, Albania will have to conform to the new EU directives and programmes, like the EU Climate & Energy Package, which entered into force on 25th June 2009, as well as the EU Copenhagen Communication. In this topic, Albania would also need to address several key issues, like the status of “*Acquis Communautaire*” of the EU Climate & Energy Package, which would lead to an early implementation of the directive in Albania, and this fact might as well modify the general background of business-as-usual in Albania, and thus the possibilities of CDM/JI projects.

Another key issue to address would be the timing and handling of the legal aspects of an accession to the status of an Annex I country for Albania at the UNFCCC. Since every member of the EU must acquire this status, it is important to note that this is not automatic, and involves a more or less lengthy process of notification at the Conference of the Parties for the UNFCCC and the MoP for the Kyoto Protocol. Most surely, this depends also on the timing negotiated between Albania and the relevant European Commission bodies.

Anyway, this whole background situation imposes an approach in which close cooperation and solidarity from the Albanian side will form the basis for EU efforts sharing in terms of COP 15 and afterwards. In this environment, and in view of the competitive disadvantage of Albania as regards to the bigger developing country players in the carbon markets, the possibility of building a strategic relationship between Albania and the EU (strengthened

by the potential EU membership) is a competitive asset that should be leveraged when developing the Albanian competitive position, since it would help make the case for a stable and reliable setting for carbon finance.

In any event, a substantive and meaningful participation in the CDM will have laid the ground for a meaningful participation in other carbon markets, be they alternative offset markets in the near future or “graduation” at any time after that. This makes the present Policy Paper and participation in the CDM totally relevant to build the capacities and expertise of Albania in this field.

3.7. Indications for streamlining the national framework for participation in the CDM and other carbon markets.

In view of the future possibilities of “graduation” and in line with the permanent requirements for flexibility that derive from a very dynamic market development, in this sub/section we will further elaborate on the conditions or “competitive guidelines” presented under paragraphs a) and c) in sub-section 2.4 above, that is, the conditions of efficiency and flexibility of the Albanian DNA structure and procedures.

The capacity of streamlining procedures and structure of the DNA in relation to the development of dynamic carbon markets will depend essentially from two types of capacities of the DNA, which are (i) market intelligence and (ii) operative adjustment capacities.

Broadly, market intelligence refers to the capacity of the public policy operators, in this case the Albanian DNA, to read and anticipate the market developments and trends, and the ability to accept, discern and interpret different kinds of information and signs coming from this developments and trends, most fundamentally the following:

- a. Signals coming from regulatory developments like the negotiations process at the UNFCCC and the KP, as well as the development of national ETS such as the W-M Bill, etc.
- b. New conditions and preferences in emerging carbon markets, like trends and sectors preferred in the CDM by various actors, etc.
- c. Expectations and perceptions from potential investors in-country and foreign investors, which include perceptions as to how conducive of business is the national approval process, availability of credit not only for the carbon component but also for the base project, etc.
- d. Market trend information expressed in specialized studies and reports, etc. such as the information on prices and market forecasts sold by certain private associations and analysis companies, for example, Point Carbon or Reuters.

Market intelligence is not only obtained through training but also through the expertise formation of the experts staffing the DNA. For that reason, it is convenient to ensure that the DNA staff works for the long-term and has a relative stability even through political changes in the country. Other two useful instruments for the building of market intelligence are the purchase of specialized information, like subscriptions to some analysis services, and the constant feedback with the business sector. For the latter purposes, in the case of Albania, the DNA could implement joint tasks with investment-related institutions, like Albinvest, which have a broad expertise with the private sector.

Operative adjustment capacities, the other type of capacities, derive essentially from the necessity to adjust rapidly the operative conditions of the CDM and other offset schemes with respect to the Albanian DNA, that is, regarding the review and approval procedures, first, but also the promotion of the Albanian opportunities for foreign investors. As a word of caution, it is useful to remind that carbon markets are only in their initial stage of implementation, and will hopefully attain their maturity some 20 years from now, with modalities that we might not be able to see clearly at present.

Therefore, it does not serve the competitiveness of the DNA to consider that the present structures and procedures can remain untouched for a long time, but rather to consider, from the start, the necessity to introduce constant adjustments and alternatives for action in relation to structure, approval process and promotional roles. The operative adjustment capacities relate mainly to three areas of necessities:

- e. Requirements for adjustment required from regulatory developments, like, e.g., reform of the CDM or new offset regimes developed at the international level (REDD in the UNFCCC could be one example, depending on how it is defined) or at national level (offsets in the US EPA is one of such possibilities);
- f. Needs for adjustment due to increased expectations of private investors or by pessimistic perceptions of certain procedures (some countries have adjusted their review and approval process after an initial testing phase, e.g., Malaysia, to ease the perceptions of investors, etc.)
- g. Adjustments introduced by the necessity of operating in simultaneous alternative schemes (e.g. if Albania decides to participate in the CDM at the same time that in VCS, the US ETS and the Canadian systems, with different standards).

In any case, the formal Policy Paper formulation will include guidelines on how to enhance both types of capacities in sub-section 6.8. below.

IV

Establishment of the DNA in Albania

4. Establishment of the DNA in Albania

Albania has so long completed the first important steps in establishing its Designated National Authority, by defining its roles and structure and by determining the national procedures for the approval of CDM project activities. Although this does not per se assure a competitive position of the country in the CDM market (and other prospective offset markets), it is in itself a part of the competitiveness of a country, especially if it is defined and (maybe most importantly) presented in a transparent manner to the prospective investors. In the following sub-sections, these elements will be summarized for an objective consideration.

4.1. Structure of Albania's DNA

According to the ruling recently passed on the matter, the DNA structure for approval of CDM projects consists of two units: the DNA committee and a technical secretariat. The DNA committee is composed of seven members, whereas four members staff the technical secretariat. The members of the committee and technical secretariat are required to be experts in various environment fields, and are civil servants by definition. The appointment of the members of committee and technical secretariat as well as more detailed rules on the functioning modalities of these units, has been defined by the Minister of Environment, Forests and Water Administration²⁸.

The general composition of the Designated National Authority Committee and its Technical Secretariat has been initially defined as follows²⁹:

DNA Committee:

- The Minister of Environment, Forests and Water Administration (MoEFWA);
- DNA Coordinator – Secretary General of the MoEFWA;
- Chief of the Water Sector, Directorate of Nature Protection Policy (MoEFWA);
- One specialist of the Directorate of Forests and Pastures Policy (MoEFWA);
- One specialist of the Environmental Impact Assessment Directorate (MoEFWA);
- The Chief of the Financial Sector, Support Services Directorate of the MoEFWA;
- The Chief of the Legal Sector of the MoEFWA.

DNA Secretariat:

- The Chief of the Project Sector (MoEFWA);
- One specialist of the Project Sector (MoEFWA);
- One specialist of the Directorate of Nature Protection Policy (MoEFWA);
- A Lawyer of the Legal Sector (MoEFWA).

²⁸ Taken from Government of Albania, Ministry of Environment, Forests and Water Administration. Decision Nr. 1553, dated 26. 11. 2008: On the Appointment of the Designated National Authority of the Clean Development Mechanism, in the Framework of the Kyoto Protocol Commitments. Copy, Tirana, February 2009.

²⁹ Taken from Government of Albania, Ministry of Environment, Forests and Water Administration, Directory of Support Services. Internal Order Nr. 24, dated 10.02.2009. Copy, Tirana, February 2009.

4.2. Role of the DNA

Under the structure defined in the previous sub-section, each one of the bodies of the DNA should have the roles described below.

1. The DNA committee performs the following functions:

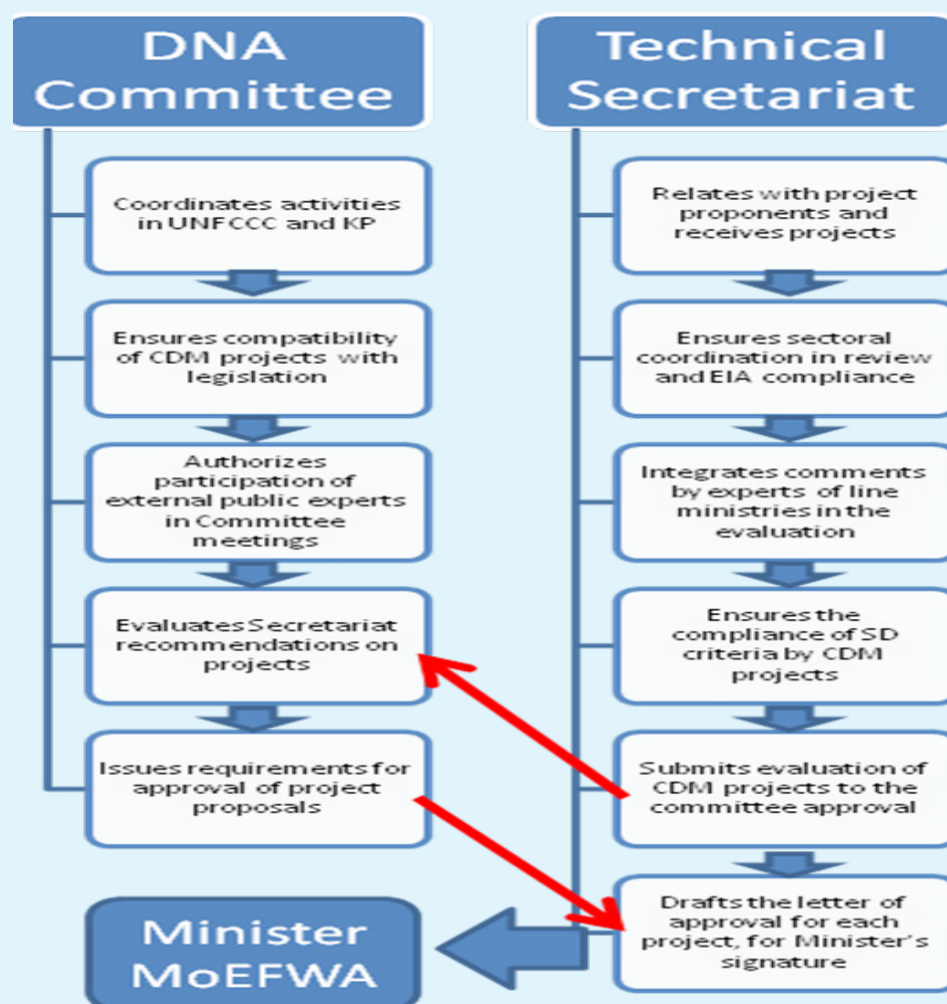
- b. Coordinates at the national and international level the activities for the implementation of the commitments of Albania as a party to the UNFCCC and the Kyoto Protocol;
- c. Ensures that projects started within the framework of CDM are developed in compliance with Albanian legislation and within the relevant international cooperation framework;
- d. Authorizes, where appropriate, the participation of the experts of line ministries in the meetings of the DNA, in accordance with the content and nature of the projects;
- e. Issues requirements for the approval of project proposals, where appropriate;
- f. Evaluates the practice designed by DNA technical secretariat

2. The DNA technical secretariat is designed to service the DNA Committee and shall perform the following duties:

- a. Takes charge of the normal relations between project proponents and the DNA, by observing the requirements and deadlines established by the defined approval procedure;
- b. Receives the requests from project proponents and performs the preliminary examination of the proposed project activities;
- c. Ensures work coordination among sectors in the examination process of the proposed project activities and its respective documentation;
- d. Ensures application of the environmental impact assessment requirements in the proposed project activities, in accordance with the provisions of Law Nr. 8990, dated 23rd January 2003 "On environmental Impacts Assessment" and the by-the legal acts issued for its implementation;
- e. Integrates relevant comments by experts of line ministries in the evaluation procedure of proposed project activities;
- f. Ensures the fulfilment of sustainable development requirement for all project;
- g. Submits the evaluation of the proposed project activities, elaborated according to the steps described above, to the DNA committee for examination and approval;
- h. Drafts the letter of approval for each project.

The process and the relationship between the Committee and the Secretariat are presented graphically in Figure 1 below. The blue arrows loosely schematize the flow inside each body, while the red arrows represent the feedback between them, with a final submission from the Secretariat to the Minister for signature of the Letters of Non-Objection or Approval.

Figure 1: Roles of the Committee and the Secretariat in the CDM approval process



4.3. National CDM projects review and approval procedures

The procedures for review and approval of proposed CDM project activities in Albania contemplate a two-tier approach, by which the system evaluates first the idea of the project explained in a PIN document and, in a second stage, evaluate a more elaborate project proposal as presented in a formal PDD. According to the Albanian DNA, there is also the possibility to present directly a fully developed PDD, and therefore shortening the approval process by nearly half the time³⁰. Art. 10.5 of the Regulation establishes that “in cases where CDM related Memoranda of Understanding and/or Agreements are in place, implemented through respective Joint Committees with the participation of the Ministry of Environment, Forestry and Water Administration, and as a consequence, specific CDM projects are identified and/or included under the respective CDM portfolios, the issuance of Letter of no Objection is not necessary”. The following paragraphs attempt a summary description of the process (see the full text of the process in the Annexes).

In the first stage, project proponents submit the request for a Letter of Non-Objection and a PIN to the DNA. The PIN contains preliminary data on the proposed project and including a brief description of the project, the estimate of potential reduction of greenhouse gas emissions as compared to the usual business scenario and an estimate of project investment costs and its duration.

³⁰ E-mail questionnaire presented to the DNA and received on 17th June 2009, namely, the reply was as follows: “as per the Governmental decree, if the project proponents would like to avoid the PIN and the Letter of No-Objection, they can do so and directly apply for the Letter of approval based on the PDD”.

On receipt of this request, the technical secretariat completes the analysis of the documents submitted by the project proponents within 25 days from the date of submission. The technical secretariat performs the following analysis:

- Evaluates completeness of the application documents and if these have also been revised by relevant directorates and sectors at the MoEFWA;
- Submits the documents to sectoral line ministries for evaluation, where appropriate;
- Requests the applicant to submit any necessary supplementary data;
- Requests the project proponents to provide communication points and procedures with stakeholders in the proposed project activity;
- After receiving of feedback and opinions by experts of the MoEFWA or sectoral line ministries, the technical secretariat submits it to the DNA Committee. The DNA Committee makes a preliminary decision within 5 working days of the submission.
- In case of a positive decision, the secretariat drafts a Non-Objection letter that contains detailed explanations on the final evaluation result. This letter is then signed by the Minister and sent to the project proponents.

Once the Non-Objection letter has been received³¹, the project proponents may submit a hard copy of the PDD to the DNA committee, in Albanian and English versions. The application, apart from the PDD, contains the following documents:

- A formal application letter addressed to the DNA Committee;
- A general description of the project activity;
- The EIA analysis or approval documents for the proposed project activity;
- A signed declaration on the financial and legal status of the company or legal entity that is submitting the proposed project activity;
- Complementary documentation that supports the proper application of a baseline and monitoring methodology;
- The specification of the project lifetime and the crediting period requested;
- Any documents or data requested by the technical secretariat in the Non-Objection letter as a response to the submission of the PIN of the project;
- Any relevant letters of approval of the development of the project by the pertinent institutions.

The analysis and approval process of the PDD takes up to 30 days from the day the application is received. Within such term, the technical secretariat checks the completeness of the application and, as needed, submits the documentation for comments to the environmental experts of the MoEFWA or of sectoral line ministries. These experts have 10 days counting from receipt of the documents to assess if the proposal meets the following criteria:

- Compliance with the sustainable development criteria applied by Albania to proposed CDM project activities;
- Observance of the requirements and procedures of EIA, in accordance with Law Nr. 8990, *"On environmental impact assessment"*, dated 23rd January 2003;
- Verification of the participation of each institution reported as part of the proposed project implementation;
- Legal and financial sustainability of project participants.

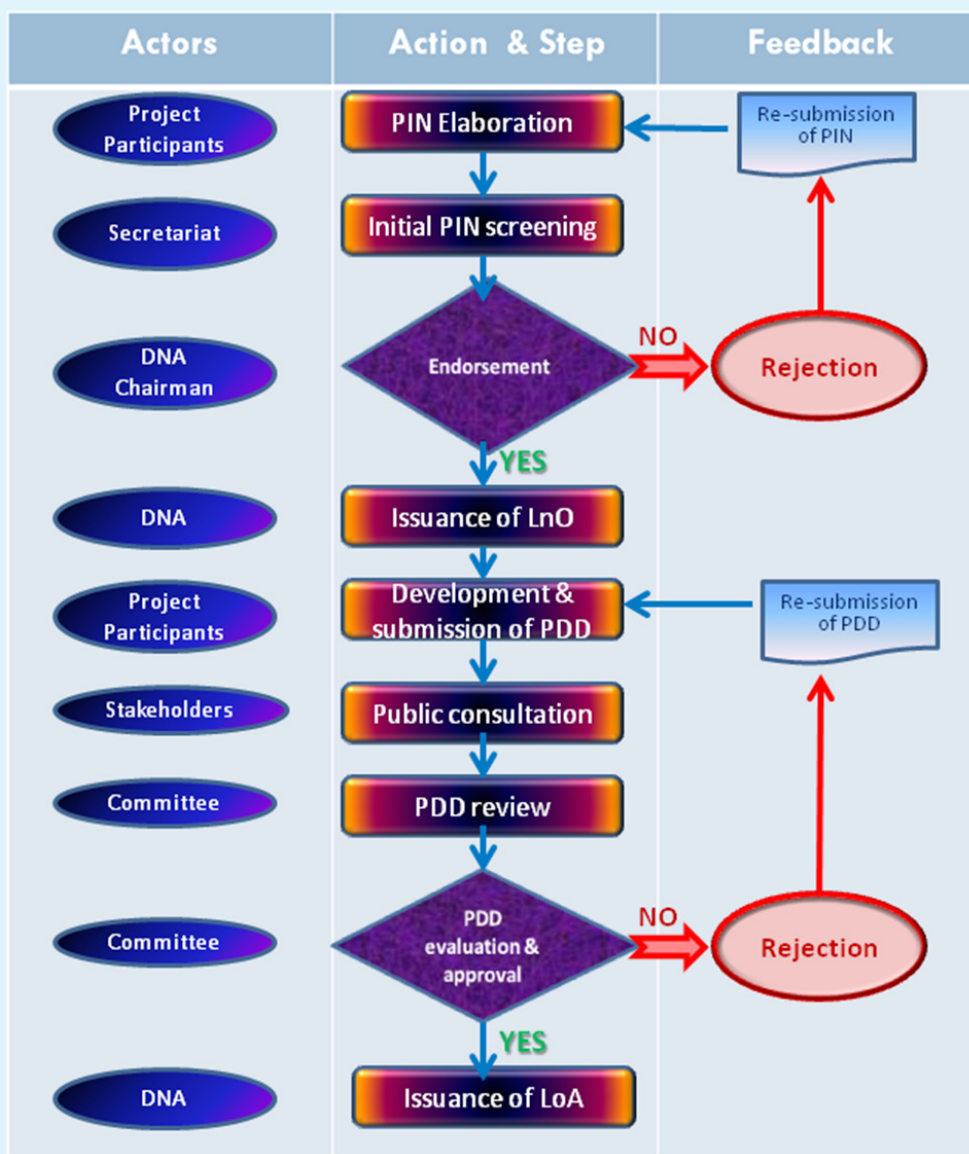
The technical secretariat, after receiving this expert feedback, compiles the final file within 4 days of the receipt of the feedback and submits the application and its report to the DNA committee, for a final decision on the project.

³¹ As already mentioned in the previous footnote, an already developed PDD can also be presented at this stage without necessarily having to pass through the process of obtaining a Non-Objection letter. Usually, the Non-Objection letter is a useful instrument to obtain endorsement, financing or co-financing for a project activity, and even to use it as documentation to obtain a credit line from some banks that work with carbon finance.

The DNA committee completes its preliminary evaluation within 5 working days and takes a final decision 10 days after receiving the application from the technical secretariat. The Minister signs the decision report and the Letter of Approval or Rejection within 5 days from the time the final decision has been taken by the committee.

Figure 2 below gives a graphical description on how this process works in practice.

Figure 2: CDM Approval process in Albania



V

Priority areas for CDM in Albania

5. Priority areas for CDM in Albania

As natural, a lesser developing economy as that of Albania cannot expect to have significant potentials in every one of the scopes and sectors covered by present CDM methodologies, at least until the Albanian economy reaches an expectant degree of development sometime in the future. Until then, it would be possible to characterize and highlight some sectors in which Albania has evident potential that could be developed first and which include initially:

- Renewable energy
- Energy efficiency in industries and commercial buildings
- Energy efficiency in district heating
- Energy efficiency in households through biomass utilization
- Solid waste management
- Wastewater management
- Afforestation and Reforestation
- REDD for offsetting schemes³²

5.1. Overview of Albania's GHG reduction potential

A mission of the Italian Ministry the Environment and Territory initially assessed the potential of Albania in reduction of GHG emissions in 2007³³. This study produced an aggregate table for GHG emission reductions potentials for the energy, waste management and forest sectors, and was updated in the following months for the UNDP PRODOC³⁴, as follows:

Table 2: *GHG Emission Reduction Potentials for Albania*

Sector	Sub-sector	Carbon potential per year, ktCO ₂ eq
Energy Sector	Industry	180
	Agriculture	6
	Residential	75
	Others	135
	SUB-TOTAL	396
Renewable Energy	Hydro	1.200
	Biomass	50
	Solar	15
	Wind	42-62
	Geothermal	NA
	SUB-TOTAL	1.307-1.327
Waste Sector (MSW + Manure treatment)		127
LULUCF		700 ³⁵
TOTAL		2.530 - 2.550

These estimates give a potential of approximately 2 and a half million tons of emission reductions per year, at an expected average price of € 12 per CER in 2010, could render more that 27 million Euros per year. A synthesized analysis of these potentials for some sectors will be presented in the following sub-sectors.

³² The potentials of REDD for Albania depend on how the framework for REDD will be defined in the UNFCCC milieu and in the US-ETS context, whether national or sub-national baselines will be considered (Albania has a net uptake of carbon at the national level, but could qualify if sub-national schemes with the consideration of forest degradation, or protection of stocks of carbon in forests are included).

³³ See Italian Ministry for the Environment and Territory: **Assessment of Projects' Potential in the Fields of Renewable Energy Source, Energy Efficiency and Forest Management, in the Framework of the Clean Development Mechanism foreseen by the Kyoto Protocol in the Republic Of Albania**, Electronic Copy, Tirana, October 2007.

³⁴ See the PRODOC contained in See Government of Albania – Government of Austria – UNDP. **Programme for Building Capacity to Access Carbon Finance in Albania**. Electronic Copy, Tirana, n/d.

³⁵ The only date update between the PRODOC and the assessment of the Italian Ministry is in this area of LULUCF. The Italian assessment gives an estimate for this sector of 620,000 tCO₂e per year.

5.2. Energy sector: energy efficiency and renewable energies

The energy sector accounts for about 3% of GDP. The total installed power generation capacity is 1,659 MW, including 1446 MW hydro and 213 MW thermal. In 2006, total final consumption (TFC) was recorded at 2.2 Mtoe, still below the 1990 level of 2.7 Mtoe but well above the levels of 1992 (1.2 Mtoe) and 1998 (0.9 Mtoe). This period witnessed a dramatic change in the country's energy mix, sectoral breakdown and uses.

The share of oil products in TFC increased to over 75% in 2005 from only 10% in 1992 while electricity (15%) and fuelwood (10%) account for the rest. Consumption of coal and natural gas is practically negligible. Since 1990, the fuels most consumed (coal, natural gas and heavy fuel oil) have been replaced by electricity, diesel and fuelwood.

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The total hydropower reserves are estimated around 3,000 MW and the potential of annual generation may reach 10 TWh. As regards small hydro power plants, there is potential to install total capacity of 140 MW in 100 locations and for 20 of these 100 the concession has been already granted although no SSHPP has been constructed in these locations yet³⁷.

Figure 3 below shows the final electricity demand forecast, according to the study of Laubach and Islami of 2008, "CDM Baseline Study for Grid-Connected Electricity Generation from Renewable Sources in the Republic of Albania". The Figure shows an equivalent growth of demand across sectors in the economy, with household consumption growing relatively less and transmission losses reducing over time, until the year 2027.

Regarding the CDM, it would be useful to mention specific barriers that prevent the development of this type of projects in Albania. In the first place, there is no real framework incentive to consider renewable energy as a competitive resource per se. In-country expertise with renewable energy might be incipient in the present time, and needs to be developed.

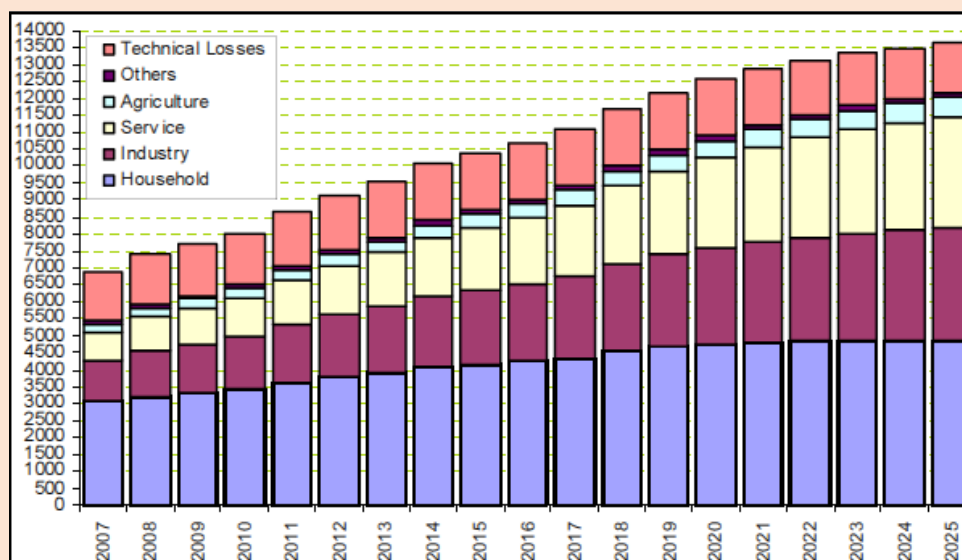
On the other hand, although the Albanian government pursues to develop renewable energies, it still has to develop a legal framework supporting wind energy, solar energy and other renewable energies. The existing off a legal framework to guarantee a stable price and connection procedures to the national grid are still to be developed. Only hydroelectric projects have, until now, a guaranteed purchase price for delivery of power to the grid.

There is also a great potential to link these kind of projects, and those of energy efficiency, with future carbon market instruments. For instance, energy efficiency is a typical area best suitable for a Programme of Activities (PoA) in the CDM.

³⁶ See Laubach and Islami, 2008. The study of the Albanian power sector baseline indicates that the sectoral participation in TFC was characterized while "industry's share dropped from below 25% to below 10% over the same period whereas transport increased from 10% to over 40%. In 2005, households, services and agriculture account for 24%, 7% and 4% of TFC, respectively". In addition, it reports that electricity has been extensively used for space and water heating, LPG for heating and diesel is used for small electricity self-generation (switched on during electricity cuts/power shedding or rationing).

³⁷ Ibidem, page 2-2.

Figure 3: Final Electricity Demand Forecast for 2007-2025 (GWh)



For biomass, in Albania, in the year 1980, the total amount of agriculture crop residues was around 800 toe, while in 2001, it was around 130 toe. Energy potential of agricultural residues has been calculated to be approx. 43.004 GJ in the year 1995, while forestry biomass resources accounted for approx 460 millions of GJ in the same year. It has been estimated that total forest biomass resources reach some 125 million m³.

According to Schlamadinger, Settlemyer and Schmidtke, 2008 (Pre-feasibility study for carbon project development in the forestry sector of Albania **UNDP-ADA Project on Carbon Financing in Albania**), on the Albanian national level, based on rural firewood consumption of 2 million m³ per year, the opportunity to reduce emissions from improved stoves in Albania is approximately 700,000-900,000 tCO₂ per year. This figure is based on 100% implementation rate. Also, assuming total consumption of 2 million m³ per year, and assuming that consumption of 10-12 m³ per year per family is typical, the total number of high-efficiency stoves that could be implemented in Albania is approximately 160,000-200,000³⁸.

With respect to solar energy, if Albania develops solar collectors systems on scale similar to Greece in per capita terms, the production of hot water would be equivalent to about 360 GWh (or 75 MW installed capacity). These figures corresponds to a total collector surface of about 400 thousand m² (0.5 m² per family) and may be taken as indicative for Albanian market potential over the next 20 years.

Wind energy resources might also be available for development. The estimated installed capacity presently is 50 MW and there is no wind atlas available at currently. According to the official energy strategy, feasibility studies should be done for selection of the best sites of installation of wind power farms with a total capacity of 100 to 150 MW. In the Albanian conditions, it is estimated that by 2020, around 4% of the generated power, or some 400 GWh/year can come from wind energy.

³⁸ The credit potential for cooking stoves should also be further qualified, because it is based on the assumption that 100% of the biomass is non-renewable. Further studies would be needed to determine the fraction of biomass that comes from renewable resources, that is, the amount of biomass which can be harvested sustainably.

5.2.1. Baseline study of the Albanian Power Sector

In November 2007, UNDP commissioned Fichtner GmbH & Co. KG as a consultant for the project “Capacity building to access carbon finance in Albania³⁹”. The objective of this assignment was to prepare a baseline study of the Albanian power sector for its involvement in the Clean Development Mechanism. The study used existing CDM baseline and monitoring methodologies to identify and justify the selection of business-as-usual conditions and scenarios in the Albanian power sector during the Kyoto Protocol commitment period. Additionally, it estimated carbon emission factors of the Albanian power grid based on varying scenarios, to be applied later on a project-to-project basis for CER calculations across all ranges of potential CDM projects in Albania. The study aims to reduce transaction costs and investment uncertainties associated with individual project development and benefit all potential developers of grid-connected CDM projects in Albania.

Results from the analysis of the Albanian power sector showed that the “ex post” approach was more appropriate due to the current operating generation capacities within the Albanian power system, already having a long technical lifetime, and new capacities currently just under construction. The “ex-post” approach was chosen because it more realistically reflects the electrical energy displaced by potential CDM projects in Albania⁴⁰.

The study used Version 01 of the Methodological Tool “to calculate the emission factor for an electricity system”, issued by the Executive Board at its 35th Meeting, to estimate the Operative Margin and the Build Margin of the Albanian grid, taking the whole country as the default electric power system for potential CDM grid-connect project activities in Albania.

Figure 1 below shows the table produced by the mentioned study for the Operating Margin, Build Margin and Combined Margin, annually for the period 2008 to 2015⁴¹. The consultant also advised that “A big help for project owners in reducing the transaction cost for the monitoring, and also a fair solution could be a ‘centralized’ determination, validation and publication of OM, BM and CM each year by the Albanian DNA or another appropriate body/agency⁴²”.

The DNA could enter into an agreement with the National Dispatching Centre or KESH to provide the required data each year for the previous year and publish it in the website of the DNA, like in the case for Brazil, El Salvador and Colombia.

Figure 4 *Estimated ex-post OM, BM and CM for the Albanian Power Grid*

	Year	2008	2009	2010	2011	2012	2013	2014	2015
Parameter	t CO ₂ / MWh								
1. Projected ex-post Operating Margin		0.00	0.21	0.57	0.57	0.57	0.56	0.56	0.56
2. Projected ex-post Operating Margin including stand-by generators		0.12	0.22	0.60	0.60	0.60	0.57	0.56	0.56
3. Projected rolling ex-ante Operating Margin		0.43	0.30	0.22	0.26	0.45	0.57	0.56	0.56
4. Projected ex-post Build Margin including new HPPs (because not registered as CDM)		0.00	0.35	0.35	0.47	0.31	0.40	0.40	0.40
5. Projected ex-post Build Margin excluding new HPPs (because registered as CDM)		0.00	0.35	0.35	0.35	0.35	0.54	0.54	0.54
6. Projected ex-post Combined Margin including new HPPs in BM (because not registered as CDM)		0.00	0.28	0.46	0.52	0.44	0.48	0.48	0.48
7. Projected ex-post Combined Margin excluding new HPPs in BM (because registered as CDM)		0.00	0.28	0.46	0.46	0.46	0.55	0.55	0.55

³⁹ See Laubach, 2008, page 1.

⁴⁰ Ibidem, page 2.

⁴¹ Laubach and Islami, 2008, page 3-8.

⁴² Ibidem, page 4-1.

5.3. Forestry Sector

There appears to be a moderate potential in Albania to implement LULUCF projects, especially in Afforestation in Reforestation, until the Executive Board makes new methodologies for agricultural activities available. In May 2008, UNDP commissioned TerraCarbon LLC as a consultant for the project *“Capacity building to access carbon finance in Albania”*. The objective of this assignment was to prepare a prefeasibility study for the forest sector in Albania with the aim of enhancing possibilities to participate in the Clean Development Mechanism. Schlamadinger, Settelmyer and Schmidtke, 2008⁴³, mention that the MoEFWA estimates the potential additional areas available for afforestation at approximately 90,000 hectares. While there is significant interest in the communes for additional projects, the Ministry is hesitating to identify specific areas for new projects until Albania's first project (the Natural Regeneration Project implemented with the BCF of the World Bank) is registered with the CDM.

The MoEFWA today estimates the potential for further afforestation areas of abandoned land (former with fruit trees) at approximately 40'000 ha. Additionally, the Ministry estimates that around 50'000 ha of shrub (macchia) and pasture may also be available. Therefore, in total, approximately 90,000 ha of land may be available for further AR projects.

There is also some potential to develop REDD project activities in other offset schemes or in future mechanisms approved by the UNFCCC. The same study highlights that *“the overall standing stock of carbon in biomass in Albania is estimated as 28 Mio t C” and that “the overall net removal in biomass from*

Albanian forests is almost 600 000 t C/year⁴⁴”. Some of these areas might qualify for REDD activities, depending on the way these activities are defined in the UNFCCC context (see footnote 24 above). In this area, if Improved Forest Management (IFM) is included as a credit-generating mechanism. It was reported that 99% of forested areas were owned by the state in 2004, and since then a process of transfer of large areas from the state to the communes has taken place. Today the communes are the main forest owner and they are organised in the Forest User Association (FUA).

These potential could be better realized if the barriers that affect the investment in the forestry sector are addressed effectively. One of the main barriers of the forestry sector, for example, is the lack of expertise and finance by the communes or municipalities, which are the entities that have the main direct forestry competencies.

⁴³ Pages 3 to 9.

⁴⁴ Schlamadinger, Settelmyer and Schmidtke, 2008, page 8

VI

Fundamentals for a competitive participation of Albania in the CDM

6. Fundamentals for a competitive participation of Albania in the CDM

The preceding sections have provided the general context in which to define the strategic actions to achieve a competitive position of Albania in the CDM in particular, and in carbon finance in particular. This information allows identifying the main challenges and barriers confronted by prospective CDM project proponents in Albania, and then the policy guidelines to address these barriers, as well as the strategic components derived from the latter. These will form the core of the Carbon Finance Policy Paper for Albania presented in the following sub-sections.

6.1. Main challenges and barriers to confront for an effective participation of Albania in carbon markets

As mentioned before, Albania has been making a substantive effort since the 1990s to modernize its institutional framework for public policies and for the promotion of private investment, including its framework for public policy in the area of environment. As of lately, the Albanian Government has also set up the DNA structure and the procedures for review and approval for proposed CDM project activities, as already described.

These efforts and achievements are commendable. Still, it is important to remark that it does not suffice to have the institutions and procedures in place to achieve an expectable market position. Countries like China can rely on the sheer scale of its economy to attract CDM investments, but an expedient process and favourable infrastructure conditions also support this⁴⁵.

Another area in which Albania has initiated its effort is that of capacity building. Still, Albania confronts some barriers for the full realization of its potential in the CDM market. We enumerate below the main barriers and challenges for the participation of Albania in the CDM and carbon finance, with the goal of achieving a distinctive and expectant market position.

⁴⁵ An illustration of the case of disparity between the scale of the economy and the level of CDM investments could be that of India, which, despite expectations of a much larger participation, is barely above Brazil, in part for regulatory uncertainties and in part of the long delay in project approval.

⁴⁶ Several studies suggest that a fiscal levy applied on CER generated in a country is not automatically perceived by the private sector as a hindrance, within certain limits. China applies different CDM levies according to the sector/scope, from 2% for renewable energy projects to 60% for HFC projects. This is also to use the levy to promote certain sectors and scopes considered more important for sustainable development over others. The ideal level seems to be between 2 and 8%. Panama, with a 30% proposed tax has lost a substantive amount of proposed investments.

a. The exposure of Albania for foreign investors has not still reached a level in which the country can be identified as a significant partner in the development of CDM projects; it's obvious that Albania cannot gain competitiveness based on the scale of its economy, against bigger economies; the present Policy Paper will define the differentiating features of the carbon finance potential to gain a sufficient level of exposure; this same lack of exposure expresses itself in a shortage of real financing for projects, be it for the base project or for the carbon component of that same project, since many interested compliance buyers will only pay for credits on delivery (and will not provide start-up finance);

b. The review and approval procedure and all related legal and fiscal provisions⁴⁶ should be presented with the maximum of transparency, but also, going beyond this, they should be perceived as transparent and be internalized by the private sector as a non-disruptive procedure; this is not automatic on the definition of the design, but the information must be widely disseminated among the private sector through sufficient capacity-building (with a natural relation to the needs of managerial abilities presented below);

c. The country still has a good way to go in the development of technical capacities for project formulation, from the base project to the more specific elements of carbon finance: PDD formulation, negotiation of deals and ERPAs, among other contracts, and the marketing of CER and other carbon credits; however, in the present market conditions, conventional capacity/building tends to be ineffective, and this Policy Paper will formulate the guidelines for an effectual creation of technical expertise.

d. Besides the technical capacities, there is also a need for what is called managerial know-how in carbon finance, which not only include the abilities for negotiations in the contracting and marketing process, but also, among others, the capacities to identify and assess preliminarily the opportunities in carbon finance and the market intelligence referred to below.

e. Among managerial capacities, it is essential to acquire the knowledge and capacities to identify market trends such as potential clients, demand, competition and prices, as well as innovative deal structures and financial packages for carbon finance. The Policy Paper identifies below guidelines and components for the Plan of Action.

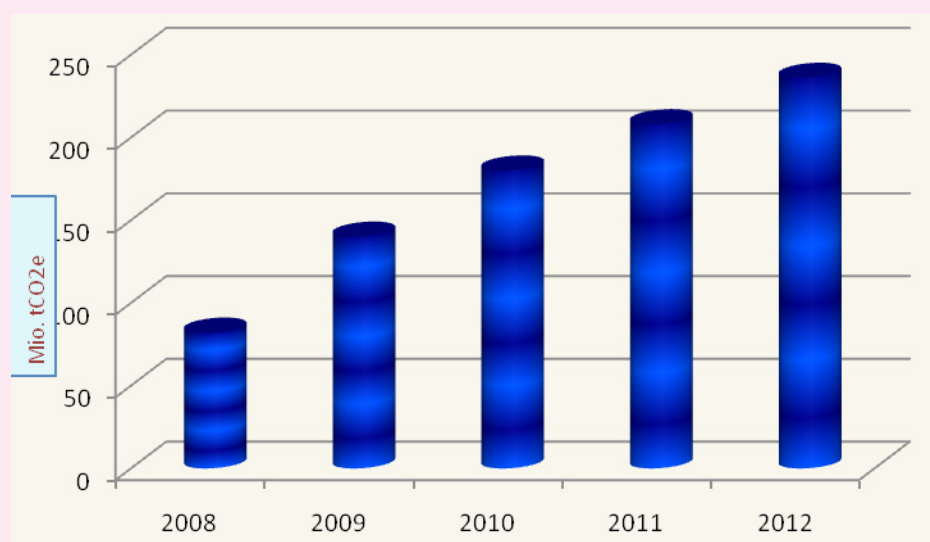
f. Another natural barrier is the relative rigidity of the government structures to change rapidly in front of a rapidly changing business environment; this is quite natural in countries like Albania that are striving for a rapid modernization and its inclusion in the global economy; reaching the required institutional and procedural flexibility is not an easy task but can be constructed over time, and this will be one of the focus of the Policy Paper.

There are some other minor barriers, but it is highly probable that, if the above described are addressed in the proper way, the Albanian DNA and its private sector will have achieved the expertise and capacities to tackle any other obstacle presented to the development of carbon finance in the country.

6.2. Policy guidelines for competitiveness in the CDM (and other carbon finance opportunities)

The carbon market will be developing rapidly in the next years, and will probably reach its maturity only by 2020 – 2025. Figure 5 gives an example of this by detailing the net CER/ERU inflow to the EU-ETS until 2012.

Figure 5: Projected Actual Inflow of CER/ERU to the EU-ETS



Source: Data taken from Orbeo, SG Commodities Research, NCF

However, it is predicted that the market will have a high volatility in prices, for which, a country like Albania, looking for an expectable presence, will have to base its competitiveness in definite policy guidelines.

The formulation of the Carbon Finance Policy Paper in Albania will be composed of the formulation of policy guidelines, strategic components or lines of actions and elements for an Action Plan, which will correspond closely with the policy guidelines and lines of action. The purpose of establishing these guidelines and strategic lines of action is consistent with the Main Objective of this Policy Paper, that is, they aim not only to participation in the CDM and other offset mechanisms, but to a competitive participation based on the quality of the projects and the reliability of the carbon credits produced. That is to say, that Albanian carbon credits will come from projects with a quality over the industry standard.

The policy guidelines must be internalized not only by the MoEFWA and by the DNA, but by the whole of the Albanian Government, in special the sectoral line ministries connected with the operation of the CDM in the country and the organisms for promotion of investment. From the barrier analysis in the previous section and the formulation of the Policy Paper objectives in sub-section 1.4 above, the following policy guidelines are suggested:

- a. Effective promotion of carbon finance opportunities in Albania, including promotion of real financing for projects;
- b. Setup of the framework for technical capacity-building for carbon finance project practitioners;
- c. Managerial ability for carbon finance;
- d. Establishment of Market Intelligence⁴⁷ at the DNA and at the investment promotion level;
- e. Organization of the operative adjustment capacities of the DNA.

These policy guidelines are substantiated and acquire depth in significance in the strategic lines of action described in sub-section 4 below, and they are essentially intended to address one-on-one the barriers listed above, with the first guideline taken into account the first two barriers.

6.3. The particular importance of the program and sectoral approaches

The significance of programmatic and sectoral approaches for carbon finance cannot be overlooked. These approaches have already been approved or are in the table of negotiation in the present framework of the Ad-Hoc Working Group on Long-Term Cooperative Action (AW-LCA) in the current negotiations up to the COP/MoP in Copenhagen, By the end of the present year.

⁴⁷ "Market intelligence" refers to the acquisition and systematization of information about, prices, demand, supply and trends in the carbon market, as well as on the development of new areas and markets for carbon finance, and in the transformation of this information in market knowledge for the public and private operators of carbon finance in Albania (the DNA, sectoral ministries and private sector).

The programme of Activities in the CDM (PoA) was approved by the 32nd Meeting of the CDM EB, following the request in to paragraph 20 of decision 7/CMP.1. Project activities (CpA) under a PoA can be registered as a single clean development mechanism project activity provided that approved baseline and monitoring methodologies are used in each CpA and that these methodologies define the appropriate boundary, avoid double counting and account for leakage, and ensure

that the emission reductions or net anthropogenic removals by sinks are real, measurable and verifiable and additional to any that would occur in the absence of the project activity.

The PoA is defined as “a voluntary coordinated action by a private or public entity which coordinates and implements any policy/measure or stated goal (i.e. incentive schemes and voluntary programmes), and that leads to anthropogenic GHG emission reductions or net anthropogenic greenhouse gas removals by sinks that are additional to any that would occur in the absence of the PoA, via an unlimited number of CPAs”.

The PoA idea was received initially with great expectations by private investors, but once the first guidelines were issued by the EB, investors were not very enthusiastic in presenting proposals, essentially because of perceived flaws in the design of the PoA, among which the most important were: (i) a high perceived risk in organizing these types of activities with many actors and stakeholders, and for the transaction associated with this risk; (ii) the constraint to the use of only one approved methodology for all the PoA and the constant need for updating every registered CpA with these; (iii) the reluctance of the DOE to validate any PoA since they were obligated by design to pay for any erroneous inclusion of a CpA; and (iv) the provision that the whole PoA would be put on hold for the erroneous inclusion of only one CpA⁴⁸.

To address these and other perceived risks of implementation of the PoA, the EB initiated a public input process that served as the base for a new improved version of the PoA guidelines⁴⁹ release at its 47th session. All of the above-mentioned problems appear to have been solved by these new EB guidelines, except the first one, which is inherent to the operation of the PoA. In the following months, private investors will have to come up with new solutions to manage these risks, and, in time, the whole idea of the PoA will be tested, but it still remains the procedure with the best potential to aggregate several small-scale project activities with many stakeholders.

On the other hand, in international negotiations on the future climate regime, sectoral approaches are proposed as a way to scale-up emission reductions in developing countries⁵⁰. Many proposals focus on the introduction of new sectoral market mechanisms. These include 1) a sectoral CDM which is a project-based crediting mechanism with the crediting baseline set at the sector level (sectoral baseline), usually set at the business-as-usual (BAU) emissions or emissions intensity level and 2) a sectoral crediting mechanism (SCM) based on sectoral no-lose target, that applies the crediting baseline at the sector level, set below the BAU level (i.e. below the sectoral baseline).

These two are new approaches that could be of a great advantage to propose innovative programs in countries like Albania, especially in the field of energy efficiency or AR project activities, and the DNA will have to prepare its structures and procedures to handle these.

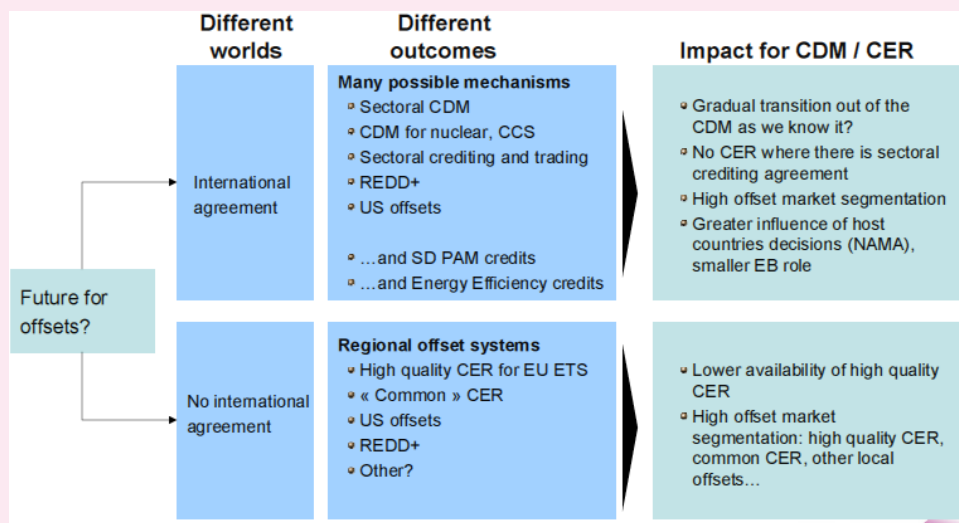
In this respect, Figure 6 gives an approximate idea of how carbon markets could look after 2012.

⁴⁸ CDM Executive Board; Report from its 47th Meeting, 26th to 28th May 2009, Annex 29, page 1.

⁴⁹ See the previous footnote.

⁵⁰ See Amatayakul and Fenhann, 2009, page 2.

Figure 6: Possible offset mechanisms after 2012



Source: Orbeo, SG Commodities Research, NCF

6.4. The strategic action lines of the Albanian DNA

In correspondence with the policy guidelines proposed above, and to address the identified barriers and challenges to the competitive implementation of carbon finance in Albania, 4 strategic action lines are proposed as the backbone of the Albanian National Policy Paper for Carbon Finance:

6.4.1. Promotion of Carbon Finance in Albania

This strategic line of action has three components. The first one is the increase of the international exposure of Albania and its potential for carbon finance to investors in the markets, including markets derived from multilateral treaties or from national-level emissions trade schemes. This exposure will not be based, as mentioned before, by presenting Albania as a field for massive investments, but rather on two attributes that will be the “brand” of Albanian projects:

Figure 7: Distinctive attributes for the branding of Albanian offsets



- a. The quality of the projects and the trustworthiness and efficiency of the prospective Albanian partners and stakeholders in implementing any activities for carbon finance;
- b. The reliability of the carbon credits (CER, VER or others) produced by Albanian project activities, PoA or sectoral mechanisms, which will be issued with high quality standards of implementation of the projects.

The second component of this line of action is closely related with the subsequent line of action (of construction of capacities and abilities), and will address the issue of transparency and internalization of the rules for review and approval of carbon finance project in Albania, be it for the CDM or other schemes. It is also related with the fourth line of action (the flexibility module), in that any changes and adjustments to foster a bigger involvement of private investors will be rapidly communicated and divulged.

The third component of this line of action is the promotion of a more consistent and sustained flow of real finance for carbon projects, be it for the base activities of these projects or for the carbon components of the same, in the case in which these are differentiated (e.g. an industrial component and its energy efficiency installation, whenever the latter is not mandated by law). The main aim of this component would be to develop relationships with international and domestic lending agencies that could support and provide financing to project developers.

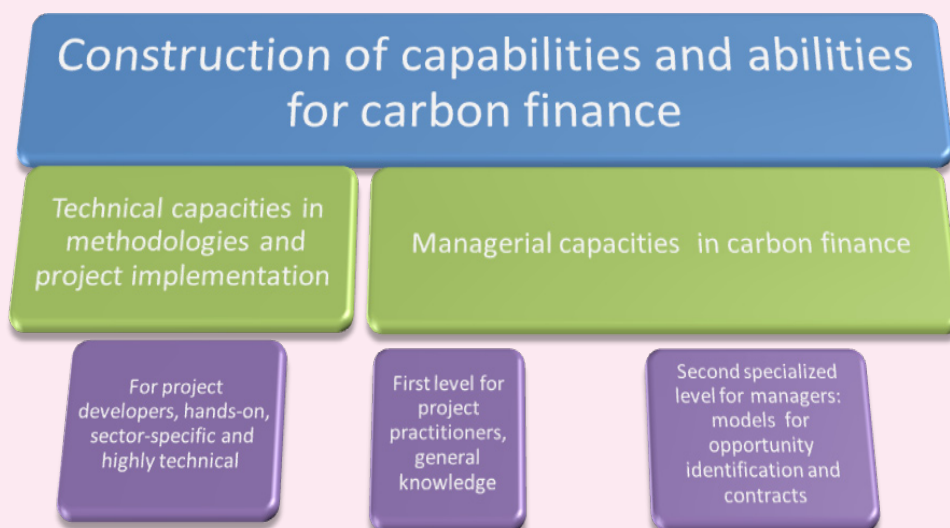
The instruments by which this line of action can be implemented in a Plan of Action for carbon finance are, apart from the customary information via printed material and the MoEFWA website, the systematic participation of the DNA staff in charge of promotion in international conferences for carbon markets and similar events. The third component would need very specific instruments of relationship with multilateral funds and development banks interested in financing carbon-clean projects, but maybe also an element introduced in the negotiation related to EU accession, in which a fund could be established to promote cleaner energies and other forms of climate-friendly investment.

6.4.2. Construction of Capacities and Abilities

This line of action is of extreme importance for a competitive participation of the country in carbon finance, because in the last analysis this is the catalyser for the attraction of foreign investment to the carbon initiatives in the country. Private investors very often rely on good in-country technical expertise, and this is no minor factor when considering the venture of new investments in any developing country. A graphical concept of this line of action is presented in Figure 8 below.

Components of this line of action are the formation of technical capacities for project practitioners, which include a close knowledge of approved methodologies for baseline determination and monitoring, but also main differences between version and methodology trends. This component should avoid the usual approach of very general theoretical training via workshops and focus on a more hands-on, sector specific, highly technical training, as described in sub-section 6.7 below.

Figure 8: *Graphic concept of the construction of capacities and abilities*



The second component here is the training on carbon finance, in the first level, for project practitioners to be aware of the marketing side of the carbon business. The second level is aimed at businessmen in the prioritized sectors and the financial sector, and should allow them to **(i)** identify potential opportunities in carbon finance during the performance of their everyday duties, and **(ii)** to manage information about contracts, project finance structure, ERPAs, etc., in carbon finance activities in which they are involved. These elements are described in more detail in sub-section 6.7 below.

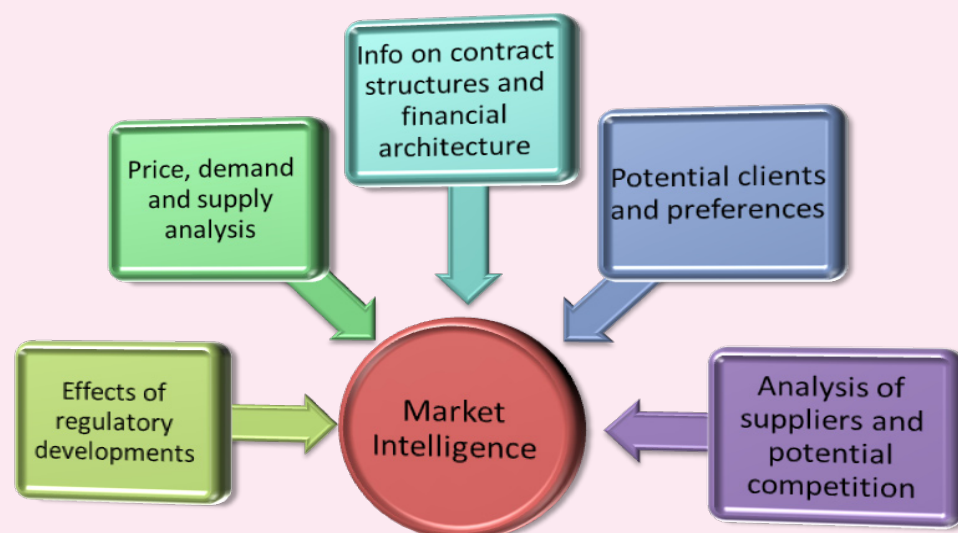
6.4.3. Market Intelligence

As mentioned before, this line of action has various technical components that apply more specifically to the managerial capacities and the capacities of the DNA technical staff in Albania, and thus are closely connected to the lines of action of promotion of Albanian potentials and to the capacity/building component of the Policy Paper. This line of action has the following components:

- Potential effects of regulatory developments at the multilateral and national level, including analysis of potential demand and supply;
- Deal and contract structures and financial packages and lines for carbon finance activities;
- Potential clients stratified by preferences and sectors;
- Price trends and volume trends.
- Analysis of suppliers and potential competition in the market

The graphic representation of these components is shown in Figure 9 below.

Figure 9 : Components of Market Intelligence



The tools for the construction of market intelligence are fundamentally two: (i) capacity of analysis of public accessible information (COP reports, national legislation, publicly released market reports, specialized bodies reports, etc.) from the market point of view; (ii) expert or limited access market reports from specialized organisms or companies like Reuters, Point Carbon, IFC, etc. The ideal situation would be to provide a budget line for the subscription and purchase of specialized reports for the Albanian DNA.

6.4.4. Flexibility module

The line of action that addresses the barrier of developing the necessary flexibility in the regulatory instruments at the national level (i.e. the DNA) derives from the fact that, in the next 10 years or so, the regulatory framework for carbon finance will be rapidly changing and constantly adding new components and actors. Creating a module for flexibility that is always one step ahead of changes will require some effort but also a mindset that might not be common for many DNAs, but that will be an ideal feature for the Albanian DNA.

Perhaps the most difficult part of this line of action is creating the instruments for constant adjustment, but once created, the capacities for these adjustments are rapidly developed. The present Policy Paper proposes the design of three of these instruments, as described in the next sub-section, which can ensure a constant fine-tuning of the Albanian DNA to the dynamic carbon market conditions: (i) a regulatory development analysis tool; (ii) a mechanism for detection of perceived risks from the approval procedure; and (iii) a systematized procedure for adjustments.

6.5. The necessities for institutional and legal streamlining

As already analyzed in previous sections of this Policy Paper, in the next few years there will be a constant evolution in carbon markets, with new mechanisms and schemes for participation, of which the CDM would only be the pioneering one, and even the same CDM could be a subject of change during the negotiations up to COP15/MoP5. There is a possibility that the majority of these changes will not be materialized by the end of this year, but rather that the COP this year (or the one after that) will be the starting point of a process of new developments for carbon finance.

The sources of innovation and development in carbon markets can be the following: (i) reform or evolution of the CDM, as it is known or operated today; (ii) inclusion of new areas and sectors in existing mechanisms or inclusion of new mechanisms (like Aviation and Maritime Transport in the CDM or REDD under the Convention or KP, for example); (iii) Establishment of new mechanisms deriving from existing or new multilateral agreements (KP or a new agreement as an outcome of the AWG-LCA, for example); (iv) the development of standards in voluntary markets (VCS and others); (vi) Offset opportunities in regional or national Emission Trading Schemes (US, Canada, Japan and others).

In whichever scenario, it is almost certain to say that, within 10 years, the structures and procedures for participation in all these mechanisms and schemes will need to have several distinctive characteristics that the CDM of today, and in this context, procedures and requirements will have to be regularly updated.

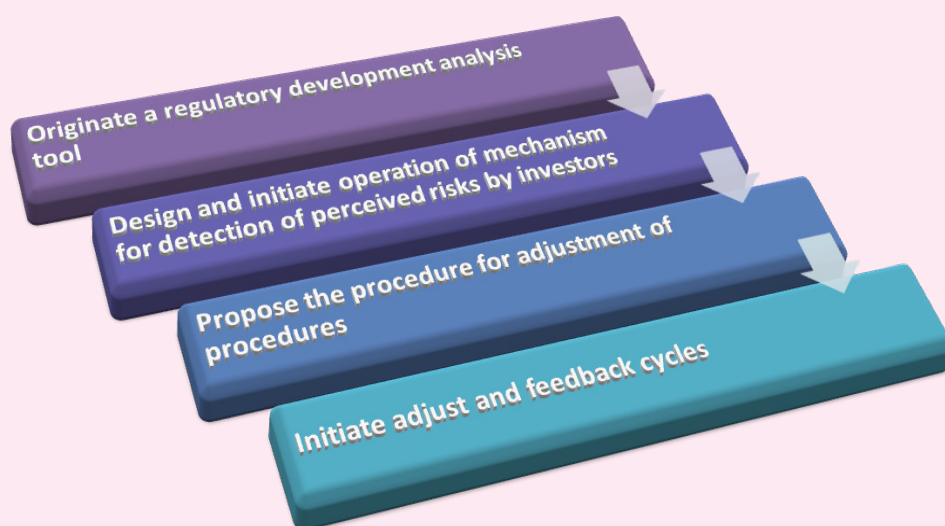
To address this necessity, the present Policy Paper proposes the design and establishment of the following operational instruments:

- a. **Originate a regulatory development analysis tool:** Based on the systematization of the information about the sources of development of new regulatory regimes or reform of the existing ones, a tool for the analysis of these regulatory developments can quickly be designed and put into operation, including components for identifying sources for publicly accessible and inside information, context analysis, trend analysis and probable outcomes, plus an alert system for the launch of any new development or regime launch, and the requirements for participation.
- b. **Design and initiate operation of a mechanism to detect any perceived risks from the national regulatory side by private investors:** This instrument could be based on surveys and questionnaires, as well as regular interviews, workshops and a press-scanning tool to see if there are any perceived risks in the private sector, as well as the means to address these perceptions, which consist on focalized information to defined actors, or the adjustment of procedures, by which this mechanisms feeds into the process described in the next paragraph.
- c. **Propose the procedure for adjustment of procedures:** This instrument consists in the design and proposal of an internal regulation process that allows the DNA Committee, following a report of the technical secretariat, to review any changes proposed and the justification for these, and the approval of such modifications and adjustment; this rule has to be formalized and inserted into the regular functions of the DNA, and should be very operative to facilitate its internalization and, most important of all, the consideration that, in the coming years, regulatory developments will be natural and unavoidable. Given the fact

that the procedures for CDM approval in Albania are defined by a decree, the legal instrument for this review process could also be proposed as such, which is much more easier than if this process were defined by a national law.

Figure 10 below gives an idea on how this streamlining process works in the practice.

Figure 10: *The institutional and legal streamlining process*



6.6. The promotional activities

Promoting Albania as a carbon finance country should be a main policy goal considered by the Albanian government.

Albania started promoting CDM through international bilateral agreements. Until now Albania has signed two Memorandums of Understanding on CDM with Italy and Denmark, plus other development agreements with the Austrian Development Assistance, KfW and World Bank Biocarbon Fund. Despite the relevance of such accords, its effectiveness has been limited in terms of CDM developed by the mentioned entities. Only the World Bank is in the phase of validation of a CDM forestry project. Most of the activities engaged under the signed memorandums refer to the capacity building actions.

Within the line of action of promotion of carbon finance in Albania, it will be useful to define the entities and roles that will undertake promotional tasks both domestically and internationally. Given the special situation of Albania, and its starting point as a relatively unknown player in the market, it seems to be pretty accurate to say that this specific objective is to make the Albanian presence in the carbon, first of all, noticeable, and secondly, systematic. The Albanian DNA has a natural role in the internal promotion of CDM. However, the Albanian government should think as well of tapping the knowledge and expertise of other Albanian institutions such as the Albanian Business and Investment Agency (Albinvest) that has large experience and capacities in promoting Albania to investors. Furthermore Albinvest mains agenda is the promotion of sector such as renewables and energy infrastructure and efficiency that are most promising areas for CDM projects. Although Albinvest is knowledgeable and active in the promotion of the mentioned areas, the carbon

component has not been integrated under its promotional strategy due to lack of knowledge. Both the Albanian DNA and Albinvest should joint synergies to coordinate the promotion of carbon projects.

Concrete promotional activities to undertake by the Albanian DNA and Albinvest might include:

These roles involve:

- Promotion of the carbon finance potentials of the country;
- Promotion of the investment climate in the country;
- Redesigning the web page of the DNA. Although a DNA web page including legal CDM procedures exists under the UNDP climate change program, it would be useful to compact and improve its design and establish direct links from the Ministry of Environment and Albinvest.
- Include under the DNA web page CDM a project pipeline information sheet with updated information on the CDM projects.
- Include the carbon component in the tool kits of Albinvest relative to renewable energy and energy efficiency and infrastructure.
- Fostering of specific project ideas and undertakings and grandfathering through a project incubator (described in the next sub-section);
- Providing of support (information, contacts and tools) for new project ideas in Albania;
- Organize by Albinvest a forum inviting investor countries in Albania extending it to countries that have not signed Memorandums of Understanding with Albania.
- When possible participation in regional and global initiatives and fora, preferably with an own booth or if this would not be possible due to financial constraints through a regional stand that could include South Eastern European countries. Particular attention has to be given to those commercial conferences and events supported by private associations (like IETA or Point Carbon, namely the Carbon Fair and regional fairs), World Bank conferences, regional meetings and so on.

Promoting CDM should also target the amendment of the legislative framework to foster CDM projects. Within this context, investment laws have particular relevance. The Albanian law on foreign investments⁵¹ creates favourable conditions for the promotion and protection of foreign investments. This law has not been object of analysis but it is quite probable that CDM projects are not included, as categories that might benefit of the law's promotion mechanisms and favourable provisions. It would be advisable, in a foreign investment law review, to specifically include CDM projects, as a category of projects that would profit from the advantages the law offers. Additionally, laws aiming at the general promotion of investments in the country either by national or foreign entities could include CDM as a new category of promotional activities.

6.7. Capacity/building for the public and private sector and project incubation

One key line of action of the present Policy Paper is the one related with building technical, marketing and managerial capacities for in-country project practitioners (professionals at the technical level) and businesspersons, including the managerial level in the finance sector. As mentioned before, this line of action has the following components:

⁵¹ Law N. 7664, dated 02-1993

- Project formulation for carbon finance: This component seems obvious and has conventionally included in all capacity building proposals; but unlike conventional proposals that aim to general knowledge about the modalities and procedures of the CDM and barely submerge into the real application of methodologies, this component will have the following characteristics:
 - o The training will be focalized not on M&P but on technical issues of project formulation, including PDD and other formats;
 - o It will be sector and methodology-specific, not general, with one methodology or two similar methodologies at the time, and with application to real case studies;
 - o It will be practical and hands-on and will have fees, even if they are minimal (e.g. between 100 and 150 Lek) to increase the perception of the training;
 - o The training will use technical tools already developed on real-life situations, like RET Screen and others;
 - o It will be intensive, short-term (maximum 2 days) and regularly updated, according to the evolution of methodologies and tools.
- **Carbon finance for project practitioners:** As already mentioned, this component will include basic knowledge of project finance for carbon project practitioners, like the ways and means of presentation of cash flows, indicators, documentation, the analysis of finance packages, contracts and deal structures, and the potential clients for each type and sector of the projects, etc.
- **Carbon finance for managers:** This component will include businessmen, bankers and decision-makers in the finance sector in Albania, and will be even more intensive (maximum half a day), and will include, besides the elements contained in the previous component, training in two tools for the managerial level:
 - o A tool for identification of the best deal structure on a case-by-case basis.
 - o A tool for rapid assessment of the viability of a carbon finance proposal.

An important element in the formation of technical and managerial capacities in the country can be the establishment of a project incubator, working in or in collaboration with the DNA (maybe in association with Albinvest and with multilateral cooperation for the formulation of the PDD and the due diligence of the projects). This incubator could start with 5 high-quality activities in different sectors/sectors, that could serve as showcases for the country and also help to establish confidence in the Albania environment for carbon investment. The incubator could start with the project formulation, due diligence and fund-raising for 5 initiatives in the country, 1 in small-scale renewable energy, 2 in energy efficiency, including biomass, 1 in solid waste management and energy generation and 1 in wastewater management. This project incubator could be linked with possible sources of funding, and specific support from existing agreements or through other international or European financing programs.

6.8. Main elements for an Albanian Plan of Action for the CDM and the carbon markets

Based on the lines of action detailed above, and on the background analysis of barriers and potentials in Albania, the present Policy Paper will propose the main elements for a Plan of Action (PA) for the CDM and other schemes of carbon finance. This enumeration of elements and a very general timeline for its implementation is the first step in the formulation of a Plan of Action. This Plan, however, needs to be updated periodically, e.g., at the end of each year of its implementation, taking into account new developments in carbon markets or possible delays in some actions during the year, etc. At this stage, we will also attach to the plan a tentative budget without identification of the sources of funding for the time being (because this has to be implemented as part of the plan itself), which is also object of dynamic adjustment over time.

The main elements for the PA, corresponding to the lines of action of this Policy Paper, plus one additional component for the implementation of the operational platform of the DNA, are given in the following Table:

Table 3: Main elements and activities for a Plan of Action for Carbon Finance in Albania

Lines of Action	Activities
1. Promotion of Carbon Finance in Albania	1.1. Establishment of priorities in promotion (locations, regions and potential clients)
	1.2. Determination of the cost-benefit analysis for the Line of Action (including non-tangible benefits)
	1.3. Determination of the contents for the different levels of promotion (commercial fairs, regional conferences, official website, Internet marketing strategy and social websites, etc).
	1.4. Definition of the promotion programme (staff in charge, calendar of events, dates for implementation of the different instruments)
	1.5. Implementation of the official website, Internet marketing strategies and social website tools.
3. Construction of Capacities and Abilities	2.1. Consolidation of the DNA structure and procedures
	2.2. Design of the capacity building programme for carbon finance in Albania
	2.3. Implementation of the technical-level activities of the capacity-building program
	2.4. Design of the managerial tools for carbon finance
	2.5. Implementation of the managerial-level activities of the capacity-building program
	2.6. Implementation of the project incubator in Albania with 5 initial activities
	2.7. Start-up of the design and implementation of a programme to commit finance resources for climate-friendly investments in Albania
1. Market Intelligence	3.1. Definition of the contents and scope of the market intelligence component of the DNA
	3.2. Definition of the staff and responsibilities at the DNA level
	3.3. Establishment of alliances, accords and collaboration agreements for market intelligence
	3.4. Definition and formalization of public channels of information and conclusion of related agreements
	3.5. Definition of priorities in private sources of information and contracting of the services or subscriptions.

	3.5. Definition of priorities in private sources of information and contracting of the services or subscriptions.
4. Flexibility module	4.1. Definition of the feedback methods for private sector perceptions on the consolidation of present procedures
	Flexibility module
	4.3. Outline of the tool for the identification of perceived risks by private sector as a feedback instrument.
	4.4. Design and implementation of the procedure for adjustment of procedures
	4.5. Design and application of the tool for identification of regulatory developments
5. Operational Platform	5.1. Definition of the operational platform templates (e.g. reporting formats, reporting and feedback lines, correspondence flow and archiving, information receipt and custody, operational roles of the staff, etc.)
	Operational Platform
	5.3. Financial programming and determination of necessities of external funding
	5.4. Development of the fund-raising policy and course of action
	5.5. Development of the annual operational plans and the detailed timelines for the lines of action of this Plan.

6.8.1. General Timeline per activity

Activities	Year 1												Year 2												
	Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1.1. Establishment of priorities in promotion																									
1.2. Determination of the cost-benefit analysis for the Line of Action																									
1.3. Determination of the contents for the different levels of promotion																									
1.4. Definition of the promotion programme																									
1.5. Implementation Internet marketing strategies and social website tools.																									
2.1. Consolidation of the DNA structure and procedures																									
2.2. Design of the capacity building programme																									
2.3. Implementation of technical-level activities of capacity-building program																									
2.4. Design of the managerial tools for carbon finance																									
2.5. Implementation of the managerial-level activities																									
2.6. Implementation of the project incubator																									
2.7. Implementation of the programme for financing climate-friendly investments																									
3.1. Definition of the contents and scope of market intelligence component																									
3.2. Definition of the staff and responsibilities at the DNA level																									
3.3. Establishment of alliances, accords and collaboration agreements																									
3.4. Definition and formalization of public channels of information																									
3.5. Definition of priorities in private sources of information.																									
4.1. Definition of the feedback methods for private sector perceptions on the consolidation of present procedures																									
4.2. Implementation of the initial survey via questionnaires or workshops																									
4.3. Outline of the tool for the identification of perceived risks.																									
4.4. Design and implementation of the procedure for adjustment of procedures																									
4.5. Design of the tool for identification of regulatory developments																									
5.1. Definition of the operational platform templates																									
5.2. Review and consolidation of the Plan of Action																									
5.3. Financial programming and defining necessities of external funding																									
5.4. Development of the fund-raising policy and course of action																									
5.5. Development of the annual operational plans																									
5.6. Feedback and adjustment																									

NOTE: The timelines outlined in light red are continuous and cyclical activities, mainly of implementation

6.8.2. Responsible entities and preliminary cost per activity

Activities	Responsible entity / staff	Incremental cost (US\$)*
1.1. Establishment of priorities in promotion	Secretariat (proposal) Minister & Committee (decision)	5,000
1.2. Determination of the cost-benefit analysis for the Line of Action	DNA Secretariat	3,000
1.3. Determination of the contents for the different levels of promotion	DNA Secretariat	0
1.4. Definition of the promotion programme	Secretariat (proposal) Minister & Committee (decision)	0
1.5. Implementation Internet marketing strategies and social website tools.	DNA Secretariat, line Ministries	5,000
2.1. Consolidation of the DNA structure and procedures	MoEFWA authorities, Secretariat, Secretariat	0
2.2. Design of the capacity building programme	Secretariat, line Ministries	10,000
2.3. Implementation of technical-level activities of capacity-building program	Secretariat	50,000
2.4. Design of the managerial tools for carbon finance	Secretariat, line Ministries	20,000
2.5. Implementation of the managerial-level activities	Secretariat, line Ministries	60,000
2.6. Implementation of the project incubator	Secretariat	170,000
3.1. Definition of the contents and scope of market intelligence component	Secretariat	10,000
3.2. Definition of the staff and responsibilities at the DNA level	Minister, Secretariat	0
3.3. Establishment of alliances, accords and collaboration agreements	MoEFWA authorities	2,000
3.4. Definition and formalization of public channels of information	Secretariat	0
3.5. Definition of priorities in private sources of information.	MoEFWA, Secretariat	0
4.1. Definition of the feedback methods for private sector perceptions on the consolidation of present procedures	Secretariat	4,000
4.2. Implementation of the initial survey via questionnaires or workshops	MoEFWA, Secretariat, line Ministries	3,000
4.3. Outline of the tool for the identification of perceived risks.	Secretariat	2,000
4.4. Design and implementation of the procedure for adjustment of procedures	Secretariat	1,000
4.5. Design of the tool for identification of regulatory developments	MoEFWA	5,000
5.1. Definition of the operational platform templates	Secretariat	0
5.2. Review and consolidation of the Plan of Action	Secretariat, MoEFWA authorities	0
5.3. Financial programming and defining necessities of external funding	Secretariat, MoEFWA	0
5.4. Development of the fund-raising policy and course of action	Secretariat	20,000
5.5. Development of the annual operational plans	Secretariat	0
5.6. Feedback and adjustment	Minister, Committee, Secretariat	0
TOTAL INCREMENTAL COST		370,000

- = This costing is additional to the regular budget of the DNA Secretariat and Committee. Might entail consultancy costs. The costing is indicative and has been calculated as an informed estimate based on overall costs of DNA offices in Northern Africa, Southeast Asia and Eastern Europe, taking international consulting and bidding prices as a reference

VII

Conclusion: Proposal of Albania for the carbon markets

7. Conclusion: Proposal of Albania for the carbon markets

In conclusion, we will summarize the essential points of the Albanian proposal for its participation in carbon finance and the carbon markets.

It is essential to underscore first that Albania expects carbon finance and the carbon market, as well as any offset mechanism, to have high standards and aims, and be based on sound science, and in particular, to have the following sustainable characteristics:

- A. To be climate-effective**, in the sense of not undermining any actual or prospective commitment of emission reduction or limitation in any binding legal instrument at the international level, and to provide a means for effective contribution to the stabilization of GHG concentrations in the atmosphere;
- B. To contribute effectively** to the sustainable development and the quality of life of the country acting as host of any offset project activities or programmes;
- C. To actually promote** the transfer and acclimatization of climate-friendly technology for its sustainable implementation in host countries;
- D. To be socially and regionally equitable**, minimizing the possibilities of marginalization of countries or regions and promoting an effective participation of all peoples in the effort of mitigation of climate change;
- E. To mobilize finance efficiently resources** for a climate-friendly development
- F. To provide a balanced reference** between methodological accuracy, business-conductive environment and the development of managerial capabilities for carbon finance;

On the basis of the conditions enumerated above, the proposal of the present Policy Paper aims to a meaningful participation of Albania in carbon markets overall, taking advantage of the advantages and specific conditions of existing and prospective carbon finance regimes, presenting the following characteristics:

1. **A noticeable and competitive participation**, based on two main characteristics: the quality of Albanian projects and initiatives, and the reliability of its operators, in terms of timing, delivery, etc.
2. **Predictability and efficacy in the mobilization of financial resources for carbon finance implementation**, building alliances and development agreements to overcome one of the main barriers for an actual engagement of Albania in these markets;
3. **An enhanced technical capacity for carbon finance among Albanian project practitioners**, which should be initially established in the next 3 years and consolidated in the next 10 years;
4. **The establishment of a long-standing managerial ability for carbon finance**, which would allow Albania to continue its “differentiation by product” in the carbon market, and the support of this in-country managerial abilities by instruments of market intelligence with public access at the level of the DNA and investment promotion agencies;

5. **Flexibility at the operative and regulatory level**, to allow for the constant development, adjustment and fine-tuning of approval procedures and promotion tools that will be necessary to cope with the rapid expansion of carbon finance mechanisms in the short- and medium-term.

In succeeding with the implementation of the means and instruments defined in the present Policy Paper, and with the support of a stable economic and social environment, Albania will be able to position it self as a noteworthy player in carbon finance and the carbon markets in the next 5 to 10 years.

VIII

Annexes

8. Annexes

8.1. Annex 1: References

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8.2. Annex 2: Selected Project Idea Notes

Title of the Project Activity: CDM Energy Efficiency Project in the Albanian Electrical Distribution Network

Project Location: The objective of the project activity to introduce energy efficiency measures in the the **Vau i Dejes Distribution Area**.

The project is located in the district of Shkodër:

- one of the thirty-six districts of Albania
- one of the largest districts in Albania, stretching from the Northern Alps to the coastal lowlands.
- Has a population of 253,225 inhabitants,
- An area of 1,631 km²
- Its capital is Shkodër

Project Description: The project will focus on upgrading and expanding the electrical distribution system in the Vau i Dejes distribution area; middle tension and low tension (110kV, 35kV, 20kV, 10kV, 6kV and 0.4kV).

- The following measures will be involved:
- Substitution of 35/10-6 kV system with 110/20 kV
- Construction of 300 transformers in rural zones (20/0.4 kV, 100 kVA) and placed in pillars
- Modify transformers in urban zones from 10-6 kV to 20 kV and new 20/0.4 kV ones, having 400 kVA capacity
- Installation of electric meters for all consumer categories



Technology Description: The equipment required for system upgrading and expansion includes:

Measure	Unit	Installation
Low voltage lines	km	235
Medium voltage lines	km	19
Transformers (MV/LV)	unit	7

CDM Methodology: AMS Type II.A. "Supply side energy efficiency improvements – transmission and distribution"

Under Type II.A. requirements, the technologies or measures may be applied to existing transmission or distribution systems or be part of an expansion of a

transmission or distribution system. Maximal savings for a small-scale CDM Type II.A. are up to the equivalent of 60 GWh per year. Under the proposed project, 55 GWh/yr over 21 crediting years will be saved through efficiency measures.

Crediting Period = 3 X 7 (21) years

Baseline definition: (Assumed)

- GHG emissions caused by electric energy losses from the Albanian grid in the absence of the CDM project activity.
- Ex-post baseline factors are chosen. These ex-post baseline factors are preliminary projected in the report "CDM Baseline Study", and will have to be exactly determined ex-post by monitoring.

Calculation of estimated emissions reductions:

	Unit	2010	2011	2012	2013	2014	2015	2016	Post- 2017
BASELINE SCENARIO									
Elect. Losses	%	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
Elect. Losses	GWh	132	136	140	146	149	153	157	157
BE	MtCO ₂	64	65	68	84	86	88	91	91
CDM PROJECT SCENARIO									
Elect. Losses	%	14	14	14	14	14	14	14	14
Elect. Losses	GWh	84	87	90	93	96	98	101	101
PE	MtCO ₂	41	42	43	54	55	57	58	58
EMISSION REDUCTIONS									
Electricity Savings	GWh	47.31	48.69	50.42	52.33	53.62	54.94	56.29	56.40
RE	tCO₂	22,907	23,574	24,413	30,299	31,044	31,808	32,590	32,607

Expected Annual Emissions Reductions:

Year	Annual estimation of emission reductions tCO ₂ e
2010	22,907
2011	23,574
2012	24,413
2013	30,299
2014	31,044
2015	31,808
2016	32,590
Total Estimated reductions (tCO₂e)	654,613
Total number of crediting years	21 (3 X 7)
Annual average over the crediting period (tCO₂e)	31,172

Financial Additionality:

	Unit	2010	2011	2012	2013	2014	2015	2016	Post-2017
CAPEX	T€	16,580							
OPEX	T€	332	332	332	332	332	332	332	332
Total Expenditures	T€	16,912	332	332	332	332	332	332	332
Revenues									
Electricity Savings	T€	2,129	2,191	2,269	2,355	2,413	2,472	2,533	2,538
CERs	T€	0	344	354	366	454	466	477	490
Cash Flows									
Without CER	Mln€	-14.7	1.8	1.9	2.0	2.0	2.1	2.2	2.2
With CER	Mln€	-14.7	2.2	2.2	2.3	2.5	2.6	2.6	2.7

Assuming the following:**CER = 15€/tCO₂****OPEX = 2%****Electricity Tariff (generation) = 0.045€/kWh**

	IRR
Without CER	13.1%
With CER	16.3%

Monitoring: Ex-ante measurements are required before project implementation to determine baseline emissions. A well established Ex-post metering system is suggested to distinguish between improvements/declines in the system performance that originates from the project activity, i.e. technical improvements, from those improvements/decline in system performance that originates from non-project activities, i.e. non-technical improvements. The data type will be the electricity entering and existing the distribution system within the project boundary

NOTE: Having a clear procedure and metering system will ease measurements of electricity savings from the project thereby facilitating the verification process.

Title of the Project Activity: CDM Efficient Lighting Project in Albania

Project Location: This project can be performed in both urban and rural Areas. Based on the the attached financial Analysis (see below), a greater investment return is in Urban Areas of Albania rather than Rural areas due to higher emission reduction potential (based on lighting use and customer preference).

Project Description: With an investment of 4.38 Million€, 763,000 compact florescent lamps (CFL) can be distributed to approximately 190,250 Albanian Households (HH).

- This CDM project involves:
- The distribution of 763,000 CFLs
- Approximately 190,750 households (HH) can participate
- CFLs distributed free or at a minimum fee
- HH can substitute no more than 4 incandescent bulbs (GLS) by 4 CFLs

Target Bulbs and their Replacement Wattage:

GLS	CFL
40W	7W
60W	11W
75W	15W
100W	20W



This CDM project will lead to a reduced consumption of electricity in the Albanian National grid and thus reduce GHG emissions

Technology Description: The CFLs used in the project are Osram DULUX EL LL/ Longlife

- E27 socket type for direct replacement of incandescent lamps
- 7,11,15 and 20W for replacement of incandescent bulbs up to 100W
- Average Lifetime of 15,000 hours (avg. 2.7 hrs/day) or 15 years
- Appropriate for 220-240v and 50-60Hz

These CFL should last throughout the entire crediting period (10yrs)

CDM Methodology: AMS-II.C. "Demand-side energy efficiency activities for specific Technologies":

Conditions:

- Project participants must be connected to the National Electrical Grid
- Project scale cannot exceed 60GWh/yr savings
- Only light bulbs with wattages equal or higher than 40W will be replaced

NOTE: AMS-II.C. Methodology was chosen over AM0046 "Distribution of efficient light bulbs to households" due to high costs associated with the monitoring requirements of the latter. Large-scale development would be financially unattractive, even when CERs revenues are included.

Baseline definition:

Assumed:

- Continued use of inefficient light bulbs in the absence of the project activity
- Higher energy demand for household lighting, producing higher emissions from energy use

In Practice:

Some households may switch to efficient lighting on their own over time. Sampling lighting use from non-participating households under the monitoring plan is suggested for accurate emissions reductions.

NOTE: the baseline is measured by monitoring ex-post the operation hours of the distributed CFLs in a representative sample of households that have exchanged their GLS bulbs.

Calculation of estimated emissions reductions:

The baseline is measured by:

$$EB = Si(ni \cdot pi \cdot oi)$$

$$EPJ = Si(ni \cdot pk \cdot oi)$$

$$ERy = (EB - EPJ) \cdot EFCO2, ELEC$$

Where

ni = the number of devices replaced

pi = the power of the devices replaced (for replaced bulbs, the weighted average is used)

pk = the power of the devices distributed to households

oi = the average annual operating hours of the devices replaced

EFCO2,ELEC = the CO2 grid emission factor

Expected Annual Emissions Reductions:

YEAR	Annual Estimation of Emission Reductions tCO2e
2009	16,793
2010	27,313
2011	30,564
2012	25,598
2013	27,637
2014	27,349
2015	27,061
2016	26,773
2017	26,486
2018	26,198
Total Estimated reductions (tCO2e)	261,772
Total number of crediting years	10
Annual average over the crediting period (tCO2e)	26,177

Financial Additionality:

Table: Cash Flow Model for Lighting Project in Urban Albania

	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Capital Costs	T€	4,387	0	0	0	0	0	0	0	0	0
Distribution Costs	T€	114	0	0	0	0	0	0	0	0	0
Revenue from Bulb Sales	T€	1,908	0	0	0	0	0	0	0	0	0
CER Revenue	T€	0	252	410	458	384	415	410	406	402	397
Cash Flow without CERs	T€	-2,594	0	0	0	0	0	0	0	0	0
Cash Flow with CERs	T€	-2,594	252	410	458	384	415	410	406	402	397

Assuming the following:

763,000 CFLs distributed
CER Price = 15€/CER
CFL Cost = 5.75€/CFL
Distribution Costs = 0.15€/CFL

Table: IRR using different CFL asking prices

	Without CER	With CER
Urban		
2.50€/CFL	-	6.45%
2.00€/CFL	-	3.48%
1.00€/CFL	-	-1.09%
Rural		
2.50€/CFL	-	1.27%
2.00€/CFL	-	-1.40%
1.00€/CFL	-	-5.51%

NOTE: two factors cause a difference btw Urban and Rural areas; more inefficient lighting is used in urban areas and average operating hours of light are longer compared to rural areas. Urban areas therefore have a greater emission reduction potential.

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Monitoring: The following is required for the Monitoring Plan:

- A project database; for calculations per the Methodology
- All data will be stored 3 years until the end of the crediting period
- A Project Coordinator is appointed for organizing and supervising
- The number and power of the replaced lamps are recorded and monitored

Each Monitoring Interval shall consist of monitoring either

(1) The “power” (done at distribution) AND “operating” hours using meters

OR

(2) Metering the “energy use” of an appropriate sample of the devices installed. In either case, monitoring shall include annual checks of a sample of non metered systems to ensure that they are still operating.

Title of the Project Activity: Small Hydropower Plants Project under a CDM Programme of Activities (PoA)

PoA Criteria:

- SHPP < 5MW (or 3MW) Capacity
- Follow that same baseline methodology
- Each SHPP shall be uniquely identified, defined and localized

Project Location: This project incorporates SHPPs all over Albania, under the PoA Guidance and Provisions: Physical boundary may extend to more than one country provided that each participating Non-Annex I Host Party provides confirmation that the PoA, and thereby all CPAs, assists it in achieving their sustainable development

Project Description: Country-wide programme in Albania to install SHPPs through the CDM Programme of Activities (PoA). The Programme of activities is the generation of electricity through hydropower within a distinct geographical area.

CDM Methodology: All CPAs of a PoA shall:

- Apply the same approved baseline and monitoring methodology and involve one type of technology,

OR

- involve one set of interrelated measures in the same type of facility/ installation/land.

In this case, they share the same implemented technology (Hydropower). Baseline Methodologies fall under the following two methods:

- ACM0002: for grid connected electricity generation from renewable energies
- AMS-I.D: for grid connected renewable energy generation (under 15MW installed capacity)

Baseline definition: Regarding to small scale methodology AMS I.D, the baseline of the Project activity is

BE = kWh generated by the Project activity X the emission factor

Example CPA: BENCE SHPP

Capacity	kW	2,500
Op. Hours	hrs/yr	3,000
Power Generation	GWh/yr	7.50
BE	tCO ₂	4,053

Expected Annual Emissions Reductions:

BENCE SHPP	
YEARS	Annual estimation of emission reductions in tones of CO ₂ e
Year 1_2010	3,450
Year 2_2011	3,450
Year 3_2012	3,450
Year 4_2013	4,125
Year 5_2014	4,125
Year 6_2015	4,125
Year 7_2016	4,125
Post-2017	4,125
Total estimated reductions	113,475
Total number of crediting years	4 X 7 (28)
Annual average over the crediting period of estimated reductions	4,053

Financial Additionality:

Table: Cash Flow Model for BENCE SHPP- 2,500kW

	Unit	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Post 2020
CAPEX	€Mln	5.00	0	0	0	0	0	0	0	0	0	0
OPEX	€Mln	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Electricity Generation	€Mln	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
CER Revenues	€Mln	0	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Cash Flow Without CER	€Mln	-4.60	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Cash Flow With CER	€Mln	-4.60	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46

Table: IRR and Parameters

	Units	Price
CER	€/CER	15.00
Electricity Tariff	€/kWh	0.08
OPEX	%	4%
CAPEX	€/kW	2,000
IRR Without CER	%	7.44
IRR With CER	%	9.03

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Monitoring: Emissions reductions from each CPA shall be monitored according to the methodology applied under the registered PoA.

Monitoring Plan: consists of metering the energy produced by the SHPP where the simplified baseline is based on the energy produced multiplied by the emission coefficient.

The Baseline Factor for electricity will be determined ex-post according to the baseline Study for Albania. Additionally, avoided electricity distribution losses are also considered.

Title of the Project Activity: Thermal Solar CDM PoA for coastal Hotels in Albania

Project Location: Hotels in the coastal area of Albania. Prevailing conditions:

- Typical Mediterranean climate global annual radiation in Albania is 1460 kWh/m²a
- 70 % of the hotels in Albania use electric boilers for domestic water heating Investment of 19.000 € for an average solar water heating plant for one hotel
- Average hotel capacity: 28 beds (new hotel); 36 beds (existing hotel)

Programme of Activities	Unit	
Accumulative Capacity	kW	905,184
Minimum Capacity	kW	160
Maximum Capacity	kW	111,200
Power Generation	GWh/yr	3,573
Average Annual Emission Reductions	tCO ₂ /yr	2,001,115
Number of CPA under:		
PoA #1 using AMS.I.D. (up to 5MW)		93
PoA #2 using ACM0002		34

Project Description:

- Goal of the project: installing solar water heating systems in hotels in Albania and substitute primarily electric DHW preparation
- Lower consumption of electrical energy and a reduction of GHG Investment of 19.000 € for an average solar water heating plant for one hotel
- Estimated number of participating hotels 200 new hotels and 800 existing hotels (share of 50% of the total number of coastal hotels in Albania)
- Hot water consumption of 7.500Wh per person and day

Technology Description: Systems for solar water heating are designed for capturing solar energy and transferring it into water boilers, either for immediate use or as a storage medium.

Main components:

- solar collector panels
- insulated storage tanks
- heat exchangers

With a heat meter the temperature of the ingoing and outgoing water will be installed to calculate the avoided electricity and the avoided emissions.

Baseline definition:

Assumed:

- Continued use of electric boiler for the water heating in the absence of the project activity
- Higher electricity demand for water heating in hotels, producing higher emissions from energy use

In Practice:

Some hotels may switch to solar water on their own over time (*free riders*)

NOTE: the baseline is measured by monitoring ex-post the thermal energy which was transferred to the water.

Expected Annual Emissions Reductions:

Year	Participating Hotels	Electricity savings	Baseline factor (preliminary)	Baseline emissions
		MWh/yr	t CO ₂ /MWh	t CO ₂ /yr
2010	100	2.884	0,48	1.326
2011	200	5.767	0,52	2.999
2012	300	8.651	0,44	3.806
2013	400	11.534	0,48	5.536
2014	500	14.418	0,48	6.920
2015	600	17.301	0,48	8.305
2016	700	20.185	0,48	9.689
2017	800	23.068	0,48	11.073
2018	900	25.952	0,48	12.457
2019	1000	28.835	0,48	13.841
2020	1000	28.835	0,48	13.841
2021	1000	28.835	0,48	13.841
2022	1000	28.835	0,48	13.841
2023	1000	28.835	0,48	13.841
2024	1000	28.835	0,48	13.841
2025	1000	28.835	0,48	13.841
2026	1000	28.835	0,48	13.841
2027	1000	28.835	0,48	13.841
2028	1000	28.835	0,48	13.841
2029	1000	28.835	0,48	13.841
2030	1000	28.835	0,48	13.841
2031	900	28.835	0,48	12.457
2032	800	28.835	0,48	11.073
2033	700	28.835	0,48	9.689
2034	600	28.835	0,48	8.305
2035	500	28.835	0,48	6.920
2036	400	28.835	0,48	5.536
2037	300	28.835	0,48	4.152
2038	200	28.835	0,48	2.768
2039	100	28.835	0,48	1.384
2040	0	28.835	0,48	0

Total estimated emission reductions	Total number of crediting years
t CO ₂ /yr	
290.487	21 for each hotel

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Financial Additionality:

- Assumptions:

CER Price = 15€/CER

Electricity cost = 0,1 €/kWh

Capex for a general plant: 17.000 €

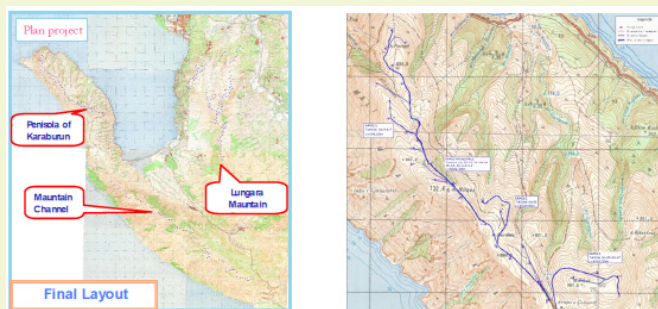
Internal Rate of Return (before tax)	
- IRR without CDM	11,8%
- IRR with CDM	13,3%

Monitoring: Regarding the Monitoring method AMS 1-C the monitoring shall consist of metering the energy produced by a sample of the systems where the simplified baseline is based on the energy produced multiplied by an emission coefficient. A heat meter will be used to meter the temperature of the ingoing water as well as the temperature of the outgoing water to be able to calculate the amount of energy and the amount of the avoided amount of emissions. The Baseline Factor for electricity will be determined ex-post according to the Albanian Baseline Study. Additionally, avoided electricity distribution losses are also considered.

Title of the Project Activity: Wind farm “Karaburun Peninsula”

Project Location: The project will be situated in the region of Vlora on the Karaburun Peninsula. The site has high prevailing winds and correctly distanced from urban centres.

Project Description: The objective of the Wind farm “Karaburun Peninsula” project activity is to generate renewable electricity using wind turbines at the Kuruburun Peninsula and to sell the generated output using the Distribution Network of Albanian Power Utility (KESH).. The project activity will generate GHG emission reductions by avoiding electricity generation from the conventional power plants. The installed capacity will be 100 MW and there will be an estimated electric generation of about 249 GWh/yr.



Technology Description: Wind turbines

Baseline definition:

- Albania Power Grid (Based on Albanian Energy Sector Baseline Study)
- Baseline factor ex-post, preliminary values according to baseline Study

Expected Annual Emissions Reductions:

Assuming:

- same wind conditions every year
- same baseline factor from 2014 onwards

Electricity production	GWh	249	3	2014 - 2027
Baseline factor	tCO ₂ /MWh	0,48	32	19,92
Annual emission reductions	1000tCO ₂	120	0	1,91
Total number of crediting years	yr	14	—	6
Total emission reductions	1000tCO ₂	1673	1	0,01
			32	13,92
			31	15,82

Assuming the following:

CER Price = 16 €/CER
 electricity price = 0,08 €/kWh
 Total investment = 120 Million €

NPV without CDM	Mio. €	0,60
NPV without CDM	Mio. €	12,29
IRR without CDM	%	7,1
IRR with CDM	%	8,7

Monitoring:

- Measurement of net electricity sold to the grid
- Ex-post determination of Baseline factor
- Calculation of emission reductions

8.3. Annex 3: CDM project review and approval procedures

REPUBLIC OF ALBANIA

Ministry of Environment, Forestry and Water Administration Designated National Authority

No.103 Prot.

Tirana, on

25.03.2009

REGULATION (No. 1, dated 25.03.2009)

ON THE CDM PROJECTS' REVIEW AND APPROVAL PROCEDURES

Pursuant to the articles 102 of the Constitution, to letter "d" of the article 18 of the law no. 9890, date 20.03.2008 "For some additions and changes to the law no.8934, dated 05.09.2002 "On environmental protection"" and to the Governmental Decree no.1553, dated 26.11.2008 'On the establishment of the Designated National Authority under the Clean Development Mechanism of the Kyoto Protocol', the Minister of Environment, Forestry and water Administration approves this Regulation:

CHAPTER I

GENERAL PROVISIONS

Article 1

Object

1.Object of this Regulation are the procedures for review and approval of CDM projects, which are submitted by different project proponents in the frame of Kyoto Protocol, and as well roles and functions of all players in this process.

Article 2

Purpose

1.This regulation defines in a detailed way the functions of the Designated National Authority (DNA) and other related structures, and as well rules and procedures implemented by this Authority for review and approval of the CDM projects submitted by different project proponents in the frame of Kyoto Protocol.

2. The Regulation defines duties and responsibilities of separate units of the Ministry during the process of CDM projects review and approval procedures.

Article 3

Definitions

1. Specific terms used in the area of climate change and in this Regulation are defined in the Annex 9 attached to this Regulation as its part.

CHAPTER II

FUNCTIONING OF THE DESIGNATED NATIONAL AUTHORITY COMMITTEE, SECRETARIAT, AND OTHER UNITS OF THE MINISTRY

Article 4

Functions of the DNA Committee

1. The CDM Committee is comprised of 7 members and pursuant to article 6 of the Governmental Decree no.1553, dated 26.11.2008 'On the establishment of the Designated National Authority under the Clean Development Mechanism of the Kyoto Protocol', performs the following functions:

1. Evaluates the practices of the CDM projects as previously prepared by the DNA Secretariat in line with rules and procedures set by this Regulation;
2. Evaluates the national and international legal frame related to the implementation of the projects;
3. Suggests initiation of development of necessary new or amended legislation in regard to CDM approval process;
4. Coordinates the process of providing opinions from the experts of line ministries;
5. Prepares when necessary the requests for approval of the CDM projects;
6. Submits requests for expert's report on the PDDs;
7. Reviews officially submitted project documents (e.g. PINs, PDDs, evaluation reports) and prepares the written opinions on them;
8. Suggests the Minister to sign the Letters of no Objection and Letters of Approval for the CDM projects;
9. Coordinates and supervises the activities of the DNA secretariat;
10. Takes part and represents the country in international activities organised by the Convention and Protocol.

Article 5

Functions of CDM Technical Secretariat

1. The activities of the DNA are supported by the CDM Technical Secretariat, which is comprised of 4 members and pursuant to article 7 of the Governmental Decree no.1553, dated 26.11.2008 ‘On the establishment of the Designated National Authority under the Clean Development Mechanism of the Kyoto Protocol’, performs the following functions:

1. Keeps the correspondence with the CDM projects proponents, in line with time terms set in the Governmental Decree no.1553, dated 26.11.2008 ‘On the establishment of the Designated National Authority under the Clean Development Mechanism of the Kyoto Protocol’;
2. Assists the project developers in providing information on national and international guidance, formats, and other relevant materials;
3. Checks the consistence of the submitted documentation with the requirements of the Governmental Decree no. 1553, dated 26.11.2008;
4. Accepts the requests of the project proponents, when those are in line with the related current legislation;
5. Coordinates with other sectors within the Ministry to provide for their evaluation of the submitted projects’ documentations;
6. Coordinates with the Directory of Environmental Impact Assessment to secure the process of environmental impact assessment for the CDM projects;
7. Facilitates the job of the DNA Committee in the process of submission, evaluation and approval of the CDM project documents;
8. Integrates the opinions of other experts from line ministries in the process of the CDM projects review and approval;
9. Communicates relevant information with the Designated Operational Entity (DOE);
10. Preparing draft letters of no-objection and approval on the basis of approved formats;
11. Takes part and represents the country in international activities organised by the Convention and Protocol;
12. Reports regularly on its activities to the DNA Committee;
13. In cooperation with the DNA Committee, provides information to the UNFCCC Secretariat about any changes of the DNA.

Article 6

Projects Unit

In line with its functional duties, the Projects Unit performs the following:

1. Follows the ongoing and implementation of the procedures of the Governmental Decree no. 1553, dated 26.11.2008;
2. Follows the implementation of the bilateral agreements in the frame of the obligations of the Kyoto Protocol;
3. Identifies and evaluates the situation for strengthening of the capacities of the DNA Committee and DNA Secretariat, and as well prepares the training program to their needs;
4. In cooperation with the IT & Communication Unit follows and supervises all public and updated information regarding the CDM process;
5. Assists the DNA Committee and DNA Secretariat in the process of evaluation and approval of the CDM projects' documentation;
6. For each and every CDM project, opens a separate dossier, where are systematised and kept all related documents.

Article 7

IT & Communication Unit

In line with its functional duties, the IT & Communication Unit performs the following:

1. Creates a new page as part of the internet page of the Ministry for climate change and CDM projects;
2. Develops and maintains a publicly accessible database containing information about the approved CDM projects and any other relevant information about CDM process;
3. Registers the project in the national database of the CDM projects after its approval;
4. Distributes the available data and information available to the Ministry regarding the CDM projects;
5. Improves and maintain the publicly accessible data base on CDM projects;
6. Engages in the activities for the public awareness increase regarding the benefits of implementing CDM projects.

Article 8

Directory of Environment Impact Assessment and the Permission' Commission

1. In the frame of CDM projects, the Directory of Environmental Impact Assessment and the Permission's Commission, in line with their functional duties, review and submit to the Minister the requests for equipment with environmental permissions for the CDM projects if necessary.
2. Revision of and the environmental permission, according to the point 1 of this article, are realised before the approval of the CDM projects.

CHAPTER III

CDM PROJECT REVIEW AND APPROVAL PROCEDURES

Article 9

Acceptance of the requests and evaluation procedures

1. In line with and pursuant to the Governmental Decree no. 1553, dated 26.11.2008, the request and the project idea for a certain CDM project, initially are administered by the DNA Secretariat, who prepares them to be further evaluated by the DNA Committee;
2. In the process of review and approval of the CDM projects, the DNA Committee and the DNA Secretariat, implement the time-frames defined in the Governmental Decree as mentioned in point 1 of this article.

Article 10

Screening and endorsement of the project idea (PIN)

1. The CDM project review and approval procedures comprise two stages with a number of steps per stage as following:
2. Stage 1 is called "Screening and endorsement of the project idea (PIN)". The purpose of this stage is to determine whether the project is eligible for CDM, and to assist the further in-depth evaluation (PDD stage), by checking the compliance of the project idea with the general CDM requirement and with the national legislation at earlier stage. This preliminary evaluation will be done on the basis of the PIN (Annex 2) which systematizes the information about the project and upon the request of the project developer for a Letter of no Objection (Annex 3). This stage goes through 4 following steps and will take up to 25 working days.
 - Step 1:** Elaboration of Project Idea Note (PIN);
 - Step 2:** Initial screening of the PIN;
 - Step 3:** Endorsement of the PIN;
 - Step 4:** Issuance of Letter of no Objection (LnO).
3. A detailed description of each of the above steps is given in the Annex 1 of this Regulation.
4. This stage develops in due line with the point 8 of the Governmental Decree no. 1553, dated 26.11.2008.
5. In cases where CDM related Memoranda of Understanding and/or Agreements are in place, implemented through respective Joint Committees with the participation of the Ministry of Environment, Forestry and Water Administration, and as a consequence, specific CDM projects are identified and/or included under the respective CDM portfolios, the issuance of Letter of no Objection is not necessary.

Article 11

Evaluation of the Project Design Document (PDD)

1. Stage 2 is called "Evaluation of the Project Design Document (PDD)". The second stage of the evaluation process serves to determine whether the project should be approved by the host country as a CDM project. This is a significantly more detailed assessment than the one in the PIN stage, and requires technical evaluation of the key elements and data related to the project against approved National Sustainable Development criteria. This stage is based on a Project Design Document (PDD) elaborated in accordance with a standard format approved by the CDM Executive Board.

Step 5: Development and submission of PDD;

Step 6: Public consultations on PDD;

Step 7: Examining of the PDD;

Step 8: Evaluation and Approval of the PDD;

Step 9: Issuance of LoA.

A detailed description of each of the stages/steps is given in the Annex 1 of this Guidance.

2. The whole project approval process develops in due line with the points 9, 10, 11, and 12 of the Governmental Decree no. 1553, dated 26.11.2008.

Article 12

Requirements for the CDM Project developer for the Letter of no Objection

1. In order to receive Letter of no Objection, for the project under the CDM, pursuant to point 8.a of the Governmental Decree no. 1553, dated 26.11.2008, the project developer has to officially submit to the DNA the following documents both in Albanian and English languages, as well as in printed and in electronic formats:

1. Application form addressed to the Albanian DNA requesting host country approval and providing contact information for the project developer (Annex 4);
2. Project executive summary in Albanian language, which describes the main characteristics of the project and demonstrates its contribution to the country's sustainable development;
3. Declaration of voluntary participation in the CDM project (Annex 6);
4. If more than one parties are involved in the CDM project, the project developer must show document(s) of evidence that it has the rights to the emission reductions;
5. Other available supporting documentation at discretion of the project developer, such as: water use permit, license for construction and operation, power purchase agreement, feasibility study, etc.

Article 13

Requirements for the CDM Project developer for the Letter of Approval

1. In order to receive Letter of Approval, for the project under the CDM, and besides the elements mentioned in point 9 of the Governmental Decree no. 1553, dated 26.11.2008, the project developer has to officially submit to the DNA the following documents both in Albanian and English languages, as well as in printed and in electronic formats:
2. A Project Design Document developed in accordance with the format, requirements and guidelines of the CDM Executive Board⁵² ;
3. Copy of the Letter of no Objection issued from the Albania's DNA upon the PIN submission (Annex 5);
4. Any documents or information, if requested in the Letter of no Objection issued by the Albania's DNA in response to the PIN;
5. An Environmental Impact Assessment decision as required under the national environmental legislation, if applicable. This depends on the project type. If an EIA is needed and is not finalised, the Letter of Approval will be conditional on the outcome of the EIA;
6. Other available supporting documentation at discretion of the project developer, such as: a pre-validation report, water use permit, license for construction and operation, power purchase agreement, feasibility study, etc.

CHAPTER IV

NATIONAL SUSTAINABLE DEVELOPMENT CRITERIA

Article 14

National Sustainable Development Criteria

In order to approve the CDM project and issue a Letter of Approval, the Designated National Authority evaluates:

1. The contribution of the CDM project to the sustainable development of the country;
2. The assessment of the achieved greenhouse gas emission reductions.

Article 15

Evaluation

The National Sustainable Development Criteria for Albania are divided into four groups, each of them assigned to a weight in accordance with its contribution to achieving sustainable development, and with relevant sub-criteria under each of the groups, as follows:

1. Environmental Criteria (40%)

- a. Contribution to mitigation of climate change;
- b. Other environmental benefits e.g. improvement of air, water, and soil quality, biodiversity protection, forest management, etc.;
- c. Manner of utilization of natural resources and conservation of local resources.

⁵² http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/index.html

2. Economic Criteria (30%)

- a. Financial returns to project entity(s);
- b. Transfer of new technology, incl. renewable and energy-saving;
- c. Attraction of foreign investments.

3. Social Criteria (15%)

- a. Poverty alleviation;
- b. Capacity development for stakeholders;
- c. Public consultations;
- d. Employment.

4. National policy criteria (15%), means contribution to and compatibility with Governmental policies and priorities at national/regional/sectoral levels.**Article 16****Forms fulfillment**

1. The table in the Annex 7 presents the weight and score system for the assessment of the CDM project towards national SD criteria.
2. After the overall assessment of the project the evaluator fills in the template of the evaluation form (Annex 8), including expressing proposal for approval/rejection of the project.

Article 17**Payment of the fee tariff**

The fee tariff of 500,000 ALL is paid when the project proponent submits the request for review and approval of a CDM project and is irreversible even in cases when the approval is not granted.

Article 18**Entering into force**

This Regulation enters into force after its publication in the Official Journal.

Lufter Xhuveli

MINISTER

signature

Appendix 1: Detailed description of the approval process of the CDM project with the activities step-by-step, the responsible body/person for their fulfilment, as well as the approximate timeframe for the completion of each step.

FIST STAGE: SCREENING OF THE PROJECT IDEA	
Step 1: Elaboration of Project Idea Note (PIN)	
Performed by:	Project developer
Submitted to:	DNA Technical Secretariat
Description of the step:	The Project developer elaborates a PIN and submits it officially to the DNA Secretariat together with an application form and other relevant documentation if appropriate. The documentation should be submitted in Albanian and English languages, as well as in printed and electronic formats.
Step 2: Initial screening of the PIN	
Performed by:	DNA Secretariat
Submitted to:	The Chairman of the DNA
Description of the step:	The Secretariat checks whether the submitted documentation is complete and assigns a number to the project. The Secretariat performs internal screening of the PIN (if needed input from other experts) and prepares a summary endorsement report for the Chairman of the DNA, containing their recommendation on the issuance of Letter of no Objection. A Draft Letter of no Objection should be attached to the report. The registration of the project in the national CDM database should take place only after its endorsement.
Step 3: Endorsement of the PIN	
Performed by:	The Chairman of the DNA
Description of the step:	Based on the summary endorsement report prepared by the Secretariat, the Chairman of the DNA decides whether to endorse the project idea or reject it.
Step 3: Issuance of Letter of no Objection (LnO)	
Performed by:	The Chairman of the DNA
Submitted to:	Project developer
Description of the step:	In case of a positive decision a LnO is to be issued and sent to the Project developer by the Chairman of the DNA. Any recommendations for improvement of the project could be included in a cover letter. In case of rejection for endorsement, the DNA should send a letter explaining the reasons for it.
SECOND STAGE: EVALUATION OF THE PROJECT DESIGN DOCUMENT	
Step 5: Development and submission of PDD	
Performed by:	The Project developer
Submitted to:	DNA Technical Secretariat
Description of the step:	After receiving a LnO the Project developer has to elaborate a Project Design Document (PDD), which should be prepared in the format approved by the CDM EB. Usually the PDD is developed with the help of consultants.
Step 6: Public consultations on PDD	
Performed by:	DNA Technical Secretariat
Submitted to:	Public

Description of the step:	The Secretariat makes the PDD publicly available for comments by publishing it on the DNA's web-page. The PDD will also be made available in this period to any interested party upon request. Issues of confidentiality should be taken into account. The Secretariat collects and summarises the received comments.
Step 7: Examining of the PDD	
Performed by:	DNA Committee
Description of the step:	After confirming the completeness of the PDD documentation the Secretariat sends copies to the Steering Committee for examination. Any of the members of the SC, in case of need of specialised expertise, may request expert's opinion from relevant institutions through the Secretariat.
Step 8: Evaluation and Approval of the PDD	
Performed by:	DNA Committee
Submitted to:	The Chairman of DNA
Description of the step:	Each of experts from the SC performs the evaluation of the sustainable development impacts of the project using the evaluation scheme. The SC takes a decision on the approval/rejection of the project, based on the results from the evaluation; the public comments received, and received expert's opinion if requested. The decision on approval/rejection is taken by consensus.
Step 9: Issuance of LoA	
Performed by:	The Chairman of the DNA
Submitted to:	Project developer
Description of the step:	In case of a positive decision on approval the Chairman of the DNA issues a LoA to the project developer. In case of rejection the letter should contain explanation of the reasons for the rejection.

Appendix 2: Template of a Project Idea Note (PIN) Format

PROJECT IDEA NOTE

A. Project description, type, location and schedule

Name of Project: _____

Date submitted: _____

Technical summary of the project

Objective of the project	Describe in less than 5 lines
Project description and proposed activities	About ½ page
Technology to be employed	Describe in less than 5 lines. Please note that support can only be provided to projects that employ commercially available technology. It would be useful to provide a few examples of where the proposed technology has been employed.

Project developer	
Organizational category	a. Government b. Government agency c. Municipality d. Private company e. Non Governmental Organization
Other function(s) of the project developer in the project	a. Sponsor b. Operational Entity under the CDM c. Intermediary d. Technical advisor
Summary of the relevant experience of the project developer	Describe in less than 5 lines
Address	Address, PO Box, City, Country
Contact person	Name of the Project Development Manager
Telephone / fax	
E-mail and web address, if any	
Project sponsors	
(List and provide the following information for all project sponsors)	
Name of the project sponsor	
Organizational category	a. Government b. Government agency c. Municipality d. Private company e. Non Governmental Organization
Address (include web address, if any)	Address, PO Box, City, Country
Main activities	Not more than 5 lines
Summary of the financials	Summarize the financials (total assets, revenues, profit, etc.) in not more than 5 lines.
Type of the project	
Greenhouse gases targeted	CO ₂ / CH ₄ / N ₂ O / HFCs / PCFs / SF ₆ (mention what is applicable)
Type of activities	Abatement / CO ₂ Sequestration

Field of activities	
a. Energy supply	Renewable energy, excluding biomass / biomass / cogeneration / improving energy efficiency by replacing existing equipment / minimization of transport and distribution / fuel switch (e.g., switch coal to biomass) (mention what is applicable)
b. Energy demand	Replacement of existing "household equipment"/improvement of energy efficiency of existing production equipment (mention what is applicable)
c. Transport	More efficient engines for transport / modal shift / fuel switch (e.g. public transport buses fuelled by natural gas) (mention what is applicable)
d. Waste management	Capture of landfill methane emissions / utilization of waste and wastewater emissions (mention what is applicable)
e. Land Use Change and Forestry	Afforestation/ reforestation/ forest management/ wetlands management/ watershed management/improved agriculture / land degradation prevention (mention what is applicable)
Baseline methodology to be used	a. Existing Baseline Methodology (Mention name and reference of the Methodology as listed by the Executive Board) b. New Baseline Methodology (mention what is applicable)
Location of the project	
Region	East Asia & Pacific / South Asia / Central Asia / Middle East / North Africa / Sub-Saharan Africa / Southern Africa / Central America & the Caribbean / South America/Central & Eastern Europe (mention what is applicable)
Country	
City	
Brief description of the location of the project	No more than 3 - 5 lines
Expected schedule	
Earliest project start date	Year in which the plant will be operational
Estimate of time required before becoming operational after approval of the PIN	Time required for financial commitments: xx months Time required for legal matters: xx months Time required for negotiations: xx months Time required for construction: xx months
Expected first year of verified Emission Reduction or CER delivery	Year
Project lifetime	Number of years
Current status or phase of the project	Identification and pre-selection phase / opportunity study finished / pre-feasibility study finished / feasibility study finished / negotiations phase / contracting phase / etc. (mention what is applicable and indicate the documentation [e.g., the feasibility study] available)

Current status of the acceptance of the Host Country	Letter of No Objection is available / Letter of Endorsement is under discussion or available / Letter of Approval is under discussion or available / Host Country Agreement is under discussion or signed / Memorandum of Understanding is under discussion or available / etc. (mention what is applicable)
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B. Expected environmental and social benefits

Estimate of Greenhouse Gases abated / CO2 Sequestered (in metric tons of CO2-equivalent)	Annual: Up to and including 2012: xx tCO2-equivalent Up to a period of 10 years: xx tCO2-equivalent Up to a period of 7 years: xx tCO2-equivalent Up to a period of 14 years: xx tCO2-equivalent
Baseline scenario	CDM projects must result in GHG emissions being lower than “business-as-usual” in the Host Country. At the PIN stage questions to be answered are at least: •Which emissions is the proposed Clean Development Mechanism (CDM) project displacing? •What would the future look like without the proposed CDM project? •What would the estimated total greenhouse gas (GHG) reduction be? (About ¼ - ½ page)
For sequestration projects only: Existing vegetation and land use	(What is the current land cover and land use? Is the tree cover more or less than 30%?)
Specific global & local environmental benefits	(In total about ¼ page)
Which guidelines will be applied?	Name and, if possible, the website location
Local benefits	
Global benefits	
Socio-economic aspects What social and economic effects can be attributed to the project and which would not have occurred in a comparable situation without that project? Indicate the communities and the number of people that will benefit from this project.	(In total about ¼ page)
Which guidelines will be applied?	Name and, if possible, the website location
WHAT ARE THE POSSIBLE DIRECT EFFECTS (E.G., EMPLOYMENT CREATION, CAPITAL REQUIRED, FOREIGN EXCHANGE EFFECTS)?	Just mention the possible direct effects
WHAT ARE THE POSSIBLE OTHER EFFECTS? FOR	Just mention the possible other effects

EXAMPLE: • TRAINING / EDUCATION ASSOCIATED WITH THE INTRODUCTION OF NEW PROCESSES, TECHNOLOGIES AND PRODUCTS AND/OR • THE EFFECTS OF A PROJECT ON OTHER INDUSTRIES	
Environmental strategy/ priorities of the Host Country	A brief description of the relationship of the consistency of the project with environmental strategy and priorities of the Host Country (Not more than ¼ page)

C. Finance

Total project cost estimate	
Development costs	xx USD/EURO million
Installed costs	xx USD/EURO million
Other costs	xx USD/EURO million
Total project costs	xx USD/EURO million
Sources of finance to be sought or already identified	
Equity	Name of the organizations and finance (in xx USD/EURO million)
Debt – Long-term	Name of the organizations and finance (in xx USD/EURO million)
Debt - Short term	Name of the organizations and finance (in xx USD/EURO million)
Not identified	xx USD/EURO million
Carbon finance contribution sought	xx USD/EURO million
Carbon finance contribution in advance payments. (The quantum of upfront payment will depend on the assessed risk of the project by the World Bank.)	xx USD/EURO million and a brief clarification (not more than 5 lines)
Sources of carbon finance	Name of carbon financiers (if any)
Indicative CER Price (subject to negotiation)	
Total Emission Reduction Purchase Agreement (ERPA) Value	
A period until 2012 (end of the first budget period)	xx USD/EURO
A period of 10 years	xx USD/EURO
A period of 7 years	xx USD/EURO
A period of 14 years (2 * 7 years)	xx USD/EURO
If financial analysis is available for the proposed CDM activity, provide the forecast financial internal rate of return for the project with and without the CER revenues. Provide	
the financial rate of return at the expected CER price above at USD/EURO equiv. 3/ tCO ₂ e. Please, provide a spreadsheet to support these calculations.	

8.4. Annex 4: Templates of Letters of Endorsements and approval for CDM projects

Appendix 1: Template of a Letter of no Objection

No. _____ Prot _____ Date. _____ 200

To: [Name, address of Project developer]

LETTER OF NO OBJECTION

(LETTER OF OBJECTION)

Pursuant to the articles 12 of the law No. 9334, dated 16.12.2004 "On the ratification of the Kyoto Protocol", articles 44, 45 of the law No. 8934, dated 05.09.2002 "On environmental protection" as changed, and to the Governmental Decree no.1553, dated 26.11.2008 'On the establishment of the Designated National Authority under the Clean Development Mechanism of the Kyoto Protocol",

Referring to [Proposal number as in the Application form], proposed by [name of the project developer],

Declares no objection (**objection**) to the further development of the project [name of the project] as a CDM project.

Signature:

[Stamp]

MINISTER

Chairman of the CDM Designated National Authority

Appendix 2: Template of an Application form for review and approval of CDM project

APPLICATION FORM FOR REVIEW AND APPROVAL OF CLEAN DEVELOPMENT
MECHANISM PROJECT BY DNA OF ALBANIA

Title of the Project:

Name and Position of Applicant:

Organization:

Address of Organization:

Tel: Fax:

E-mail:

Name of Project Partner(s):

Applying for:

Letter of No Objection

Attached:

- o PIN (mandatory)
- o Any other relevant documents
- o Translations of all the documents in Albanian (mandatory)
- o Electronic version of all documents in Albanian and English languages (mandatory)

☐ Letter of Approval

Attached:

- o PDD (mandatory)
- o Declaration of voluntary participation in a CDM project (mandatory)
- o Copy of the Letter of no Objection (if prior required and available)
- o Project executive summary in Albanian language (mandatory)
- o Environmental Impact Assessment decision (if applicable)
- o Any documents or information, if requested in the Letter of no Objection
- o Letter of support from the municipality or other relevant institution (if appropriate)
- o Documents of evidence for possession of rights on emission reductions in case more that one party is involved in the project
- o Any other relevant documents (e.g. pre-validation report, water use permit, license for construction and operation, power purchase agreement, feasibility study, etc.)
- o Translations of all the documents in Albanian (mandatory)
- o Electronic version of all documents in Albanian and English languages (mandatory)

Date of Submission:

Signature of Applicant:

For DNA use only:

Registration Number:

Appendix 3: Template of a Letter of Approval

No. _____ Prot

Date. _____ 200

To: [Name, address of Project developer]

LETTER OF APPROVAL

Pursuant to the articles 12 of the law No. 9334, dated 16.12.2004 "On the ratification of the Kyoto Protocol", articles 44, 45 of the law No. 8934, dated 05.09.2002 "On environmental protection" as changed, and to the Governmental Decree no.1553, dated 26.11.2008 'On the establishment of the Designated National Authority under the Clean Development Mechanism of the Kyoto Protocol',

Referring to [Proposal number as in the Application form], proposed by [name of the project developer],

Declares approval to the further **development of the project** *[name of the project]* as a CDM project.

Signature:

[Stamp]

MINISTER

Chairman of the CDM Designated National Authority

Appendix 4: Template of a Declaration of voluntary participation in a CDM project

DECLARATION

OF VOLUNTARY PARTICIPATION IN A CDM PROJECT

By this declaration I [name, title], in my capacity of a project developer, acknowledge that my participation in the project [title of the project] to be implemented in Albania under the Clean Development Mechanism of the Kyoto Protocol, is entirely voluntary.

Signature: *[Project developer]*

[Stamp]

Date:

Appendix 5: Weight and score system for Sustainable Development criteria

SUSTAINABLE DEVELOPMENT CRITERIA/ SUB-CRITERIA	INDICATOR	WEIGHT (100%)	SCORE	EFFECT (WEIGHT X SCORE)
ENVIRONMENTAL		0.4		
Contribution to mitigation of climate change	GHG emissions (reduction/avoidance/sequestration of GHG emissions in tones CO ₂ eqv.)	0.2	+1 to +2	
Other environmental impacts	Emissions/pollution and/or quality of environmental components (e.g. change in the levels of emissions/pollution and/or change in the quality of environmental components such as water, air, soil, etc.)	0.12	-2 to +2	
Sustainable use of natural resources	Physical units of the resource (the way in which the natural resources are used, e.g. destruction/ planting of forests, utilisation of soils, waters, fuels, change in the productivity of local ecosystems, etc.)	0.08	-2 to +2	
Sub total:				
ECONOMIC		0.3		
Financial returns to project entity(s)	Payback period, internal rate of return, net present value (improvement of these indicators due to the carbon finance of the project)	0.105	0 to +2	
Transfer of new technology	New technology applied (use of efficient technology	0.105	0 to +2	
	with less negative impact on the environment than the one used traditionally)			
Attraction of foreign investments	Financial flows (attraction of new investment, consistent with the needs of local stakeholders; capital invested in monetary units)	0.09	0 to +2	
Sub total:				
SOCIAL		0.15		
Poverty alleviation	Income for local people, living conditions (e.g. increase/decrease in per capita income, other variables for quality of life and poverty)	0.045	-2 to +2	
Public consultations	Public consultations (number of public consultations held, as a minimum those required under the EIA, and how the comments have been taken into account in the planning of the project)	0.03	0 to +2	

Public consultations	Public consultations (number of public consultations held, as a minimum those required under the EIA, and how the comments have been taken into account in the planning of the project)	0.03	0 to +2	
Capacity development for stakeholders	Awareness, skills, access to information (e.g. increase of awareness, skills, access to information of different target groups about specific issues related to climate change and/or project implementation)	0.03	0 to +2	
Employment	Jobs creation (e.g. number of people hired/dismissed, including permanent and/or temporary jobs)	0.045	-2 to +2	
Sub total:				
NATIONAL POLICY		0.15		
Contribution to and compatibility with Governmental policies	Compliance with national/regional/sectoral legislation, strategies, and plans (on the basis of the results from the evaluation using the template from Table 3)	0.15	0 to +2	
Sub total:				
Total:				

The maximum score a single project can receive is 2, the minimum is -0.38. A project with a score below 0.8 should not be proposed for approval.

Appendix 6: Evaluation form

For the project: (title of the project)

Received request for evaluation on (date)

Evaluator

Name:

Position/institution:

GENERAL EVALUATION:

1. Is the proposed CDM project in compliance with the mandatory criteria for contribution to mitigation of climate change and all relevant national policies? (Please, use Tables 2 and 3).
Yes/No (Comments if appropriate)
2. Please, indicate your final score from the completed sustainable development tool for the evaluation of the project (Please, use Table 4)

Total score:

FINAL RECOMMENDATION:

Do you recommend approval of the proposed CDM project and issuance of a Letter of Approval?

Yes/No

If no, please provide reasons and suggestions/recommendations (if any) for improvements of the project proposal. (If necessary use additional sheet)

Note: *All filled in forms should be attached.*

Signature:

Date

Appendix 7: Definitions used in the area of CDM

Within the meaning of this Regulation, the following terms have these meanings:

- **Bilateral CDM project:** A bilateral CDM project is the standard form of the CDM project, involving an investor, a developed country and a host developing country.
- **Certified Emission Reduction (CER):** Units issued for emission reduction generated by CDM project activities. One unit is equal to one metric ton of CO₂ equivalent.
- **CDM Registry:** Standard electronic database to be established and maintained by the CDM Executive Board which will contain common data elements relevant to the issuance, holding, transfer and acquisition of CERs.
- **Certification (of CERs):** The written assurance by the DOE (Designated Operational Entity) to confirm that, during a specified time period, a CDM Project activity achieved the reductions in Greenhouse Gas emissions as verified.
- **Issuance (of CERs):** Issuance of CERs refers to the instruction by the Executive Board to the CDM registry administrator to issue a specified quantity of CERs for a project activity into the pending account of the Executive Board in the CDM registry, in accordance with paragraph 66 and Appendix D of the CDM modalities and procedures.
- **Greenhouse Gas (GHG):** One or more of the six gases listed in Annex A to the Kyoto Protocol that trap heat when released into the atmosphere, being carbon dioxide (CO₂), methane, nitrous oxide, ozone, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆). They occur through natural and human-induced activities.
- **Emission Reduction Purchase Agreement (ERPA):** governs any contractual arrangements between the entity having received entitlement of selling CERs and another entity in need to purchase CERs. Most importantly, the ERPA includes provisions for CER delivery, payments, and several obligations of both Parties.
- **Monitoring of a CDM project activity:** Monitoring refers to the collection and archiving of all relevant data necessary for determining the baseline, measuring anthropogenic emissions by sources of greenhouse gases (GHG) within the project boundary of a CDM project activity and leakage, as applicable.
- **Conference of the Parties (CoP):** The CoP is comprised of countries that have ratified or acceded to the UNFCCC. The CoP is the supreme governing body of the UNFCCC.
- **Annex I Country:** refers to those developed countries and economies in transition listed in Annex I of the UNFCCC, which have agreed to non-binding commitments to reduce their GHG emissions to 1990 levels by the year 2000.
- **Non Annex I Country:** Countries which are not listed in Annex I of the UNFCCC (generally, developing and least developed countries).
- **Host Country:** The non-Annex I country in which a CDM Project is based.
- **MOP:** Meeting of the Parties. This refers to the meetings of all Parties having ratified the Kyoto Protocol. The first MoP was held in December 2005 in conjunction with CoP11 at Montreal, Canada.

- **Designated Operational Entity (DOE):** is an independent legal entity accredited by CDM Executive Board that can validate proposed CDM Projects and verify and certify Greenhouse Gas emission reductions. Using the same DOE for non-small-scale CDM projects requires the prior acceptance through the CDM Executive Board. For small-scale CDM projects the same DOE may be contracted without prior approval.
- **Executive Board (EB) (also referred to as CDM Executive Board):** The CDM Executive Board supervises the CDM, under the authority and guidance of the COP/MOP, and is fully accountable to the COP/MOP.
- **Additionality:** The term refers to the reduction in Greenhouse Gas emissions by sources or removals by sinks that is additional to any that would occur in absence of the CDM Project activity. The term is stated in the Marrakech Accords clarifying that a project activity is additional if anthropogenic emissions of Greenhouse Gases are reduced below those that would have occurred in the absence of the CDM project. From this perspective, additionality is often referred to as Environmental Additionality.
- **Afforestation:** refers to the direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources.
- **Allocation Statement:** is the statement which may be provided by Project Participants to the CDM Executive Board.
- **Baseline:** refers to the scenario that reasonably represents the anthropogenic emissions by sources of Greenhouse Gases that would occur in the absence of the proposed project activity.
- **Baseline approach:** Baseline approach is the basis for a baseline methodology. The Executive Board agreed that the three approaches identified in sub-paragraphs 48 (a) to (c) of the CDM modalities and procedures be the only ones applicable to CDM project activities. They are:
 - (i) Existing actual or historical emissions, as applicable;
 - (ii) Emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment; or
 - (iii) The average emissions of similar project activities undertaken in the previous five years, in similar social, economic, environmental and technological circumstances, and whose performance is among the top 20 per cent of their category.
- **Crediting Period:** The period for which the CDM project can generate CERs for eligible emission reductions.
- **First Commitment Period:** The period between 2008-2012 during which Annex I countries to the Climate Change Convention are required to reduce their emissions of Greenhouse Gases to the levels established in the Kyoto Protocol.
- **Marrakech Accords:** Decisions 2/CP.7 through to Decision 24/CP.7 (inclusive) of the seventh session of the COP/MOP.
- **Methodology Panel (short: Meth Panel):** Shall develop specific proposals for consideration by the Executive Board on e.g. appropriateness of new proposed baseline and Monitoring methodologies.

- **Mitigation:** An anthropogenic intervention to reduce the sources or enhance the sinks for greenhouse gases.
- **Official Development Assistance (ODA):** Annually disbursed official bilateral government assistance from Annex I to non-Annex I countries.
- **Operational lifetime:** It is defined as the period during which the CDM project activity is in operation. No crediting period shall end after the end of the operational lifetime (calculated as from starting date)
- **Project activity:** A project activity is a measure, operation or an action that aims at reducing greenhouse gases (GHG) emissions. The Kyoto Protocol and the CDM modalities and procedures use the term “project activity” as opposed to “project”. A project activity could, therefore, be identical with or a component or aspect of a project undertaken or planned.
- **Project boundary:** The national boundaries surrounding an actual or proposed CDM Project within which Greenhouse Gas emission impacts and effects are considered and quantified.
- **Public consultation period:** sometimes also referred to as stakeholder consultation process is the process where the project developer invites stakeholders that may be affected by the project to explain the project, to answer questions and to clarify issues of public concern. The project developer must as part of the PDD development summarise how the public consultation period was organised and how due account was taken on public comments.
- **Reforestation:** The direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but that has been converted to nonforested land. For the First Commitment Period, reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31 December 1989.
- **Stakeholder/s:** The public, including individuals, groups or communities affected, or likely to be affected, by the proposed CDM project activity.
- **Starting date:** The starting date of a CDM project activity is the date at which the implementation or construction or real action of a project activity begins.
- **Transaction log:** Under the Marrakech Accords, a transaction log will be established by the secretariat to the UNFCCC to verify the validity of all transactions involving Kyoto Protocol rights including CERs within or between registries (including between a national registry and the CDM registry). The log will cover the issuance, transfer, acquisition, cancellation, retirement or carryover into the next commitment period of any Kyoto Protocol rights.
- **Registration:** The formal acceptance by the CDM Executive Board of a validated project as a CDM Project. Registration is the prerequisite for verification, certification and issuance of CERs related to that project.
- **Unilateral CDM project:** A Clean Development Mechanism project developed and implemented by a developing country (non-Annex I) party and/or entity.
- **Validation:** is the process of independent evaluation of a project activity by a designated DOE against the requirements of the CDM as set out in the Marrakech Accords on Article 12 and on the basis of the Project Design Document.
- **Verification:** The periodic independent review and ex post determination by the designated DOE of the monitored reductions in anthropogenic emissions by sources of Greenhouse Gases that have occurred as a result of a registered CDM Project activity during the verification period.

8.5. Annex 5: CDM funds and service providers

The list included here is not exhaustive and only mentions the most widely-known funds and service providers for the CDM, like the DOE, brokers and project development companies, excluding banks and law firms working in the CDM, that can be counted by hundreds.

Emissions Trading & Carbon Funds

- Asia Carbon Group and the Asian Carbon Exchange
- Carbon Credit Capital (CCC)
- Carbon Positive
- CD4CDM
- Chicago Climate Exchange
- Emissions Marketing Association
- European Climate Exchange
- European Union Emissions Trading Scheme (EU ETS)
- Greenhouse Gas-Credit Aggregation Pool (GG-CAP)
- ICEcap Ltd.
- International Emissions Trading Association
- International Finance Corporation
- Renewable Energy Certificate System (RECS)
- The Union of the Electricity Industry
- United Nations Development Programme - Millennium Development Goals (MDG) Carbon Facility
- World Bank Carbon Finance Unit

The list of carbon funds at this last Unit is the following:

- Prototype Carbon Fund
- BioCarbon Fund
- Community Development Carbon Fund
- Italian Carbon Fund
- The Netherlands CDM Facility
- The Netherlands European Carbon Facility
- Danish Carbon Fund
- Spanish Carbon Fund
- Umbrella Carbon Facility

List of operating DOEs

The following is the list of operating DOEs as of 10th August 2009:

Ref. Number	Entity Name
E-0001	Japan Quality Assurance Organisation
E-0002	JACO CDM., LTD
E-0003	Det Norske Veritas
E-0005	TUEV SUED Industrie Service GmbH
E-0006	Deloitte Tohmatsu Evaluation and Certification Organization
E-0007	Japan Consulting Institute
E-0009	Bureau Veritas Certification Holding SAS
E-0010	SGS United Kingdom Ltd.
E-0011	Korea Energy Management Corporation
E-0013	TÜV Rheinland Japan Ltd.
E-0014	KPMG Sustainability B.V.
E-0016	ERM Certification and Verification Services Ltd.
E-0021	Spanish Association for Standardisation and Certification
E-0022	TÜV NORD CERT GmbH
E-0023	
Lloyd's Register Quality Assurance Ltd.	
E-0024	Colombian Institute for Technical Standards and Certification
E-0025	Korean Foundation for Quality
E-0027	Swiss Association for Quality and Management Systems
E-0034	China Environmental United Certification Center Co., Ltd.
E-0037	RINA S.p.A.
E-0038	SIRIM QAS INTERNATIONAL SDN.BHD
E-0039	Korean Standards Association
E-0040	Environmental Management Corp.
E-0041	Japan Management Association
E-0042	Germanischer Lloyd Certification GmbH
E-0044	China Quality Certification Center
E-0045	Ernst & Young Associés (France)

Selected Project Developers and Brokers

- CME Group NYMEX, 5th fl. 33 Cannon Street, EC4M 5SB London, Great Britain
- E.ON Climate & Renewables GmbH JI/CDM, Völklinger Stasse 4, 40219 Düsseldorf, Germany
- EuropeanEnergy Exchange AG, Augustusplatz 9, 04109 Leipzig, Germany
- Linklaters LLP, One Silk Street, London EC2Y 8HQ, Great Britain
- ORBEO, Cours Valmy - Tour SG 17, 92987 Paris La Defense, France
- RWE Power AG Climate Protection, Huyssenallee 2, 45128 Essen, Germany
- Agrinergy Pte Ltd, 10 Hoe Chiang Road, 089315 Singapore, Singapore
- Atmosfair gGmbH, Zossener Str. 55 -58, 10961 Berlin, Germany
- Bunge Emissions Group, P.O.Box 518, 1211 Geneva, Switzerland
- Carbon Fix Standard, Friedrichstr. 15, 70174 Stuttgart, Germany
- CarbonFlow, 660 3rd St., San Francisco 94107, United States of America
- Carbon Resource Management, 49 James's Street, London SW1A 1JT, Great Britain
- DLA Piper UK LLP Noble Street 3, London SE7 8JE, Great Britain
- Ecolutions GmbH & Co KGaA, Grüneburgweg 18, 60322 Frankfurt, Germany
- EcoSecurities International Ltd., 40-41 Park End Street, Oxford OX1 1JD, Great Britain
- EDF Trading Limited, 80 Victoria Street, Cardinal Place 3rd fl., London SW1E5JL, Great Britain
- ERM Ltd., 33 St. Mary Axe, Exchequer Court, London EC3A 8AA, Great Britain
- Fichtner Carbon Management GmbH, Sarweystr. 3, 70191 Stuttgart, Germany
- Gazprom Marketing & Trading Ltd., Marina Place, Hampton Wick 60, Kingston Upon Thames KT1 4BH, Great Britain
- GDF Suez (Electrabel), Boulevard de Régent, 1000 Bruxelles, Belgium
- Global Carbon BV, Niasstraat 1, 3531 WR UTRECHT, The Netherlands
- DEAcarbon, 2nd Floor Audrey House, London EC1N 6SN, Great Britain
- Japan Carbon Finance, Ltd. 1-3, Kudankita 4, Chiyoda-Ku, 102-0073 Tokyo, Japan
- Kyoto Energy Pte. Ltd., 80 Raffles Place, Level 36 Unit 01, 048624 Singapore, Singapore
- Mercuria Energy Trading SA, Rue du Rhone, 50, 1204 Geneva, Switzerland
- MGM International Brickell Key Drive, Suite #501, Miami, FL 33131, United States of America
- Natsource Europe Limited, Hill House, Heron Square, Richmond TW9 1ED, Great Britain
- Nord Pool ASA, NasdaqOMX Commodities AS, Vollsvn 19, 1326 Lysaker, P.O. Box 373, 1326 Lysaker, Norway
- Perspectives GmbH Zurich Office, Klosbachstr. 2, 47877 Willich, Switzerland
- Pure Carbon Services GmbH, Mohrenstraße 34, 10117 Berlin, Germany
- RBS Sempra Commodities, 155 Bishopsgate,
- Sindicatum Carbon Capital, Duke Street 33, London W1U 1JY, Great Britain
- South Pole Carbon Asset Management, Technoparkstr. 1, 8005 Zürich, Switzerland
- Sumitomo Corporation 1-8-11, Harumi, Chuo-Ku, 104-8610 Tokyo, Japan
- Terra Global Capital, LLC 1948 Green Street, San Francisco. CA, United States of America
- Trading Emissions PLC, 22 Billiter Street, London EC3M 2RY, Great Britain
- Zero Emissions Technologies, S.A., Avda. de la Buhaira, 2, 41018 Sevilla, Spain



