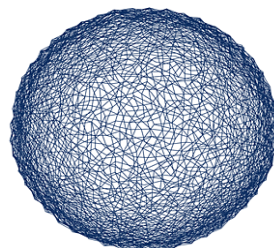




## Kosovo and Climate Change



## A Strategic Approach to the Copenhagen Climate Change Conference 2009



COP15  
COPENHAGEN  
UN CLIMATE CHANGE CONFERENCE 2009

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Author: **Nils Pfeiffer**

Assistant researcher: **Kaltrina Hoxha**

Editor: **Tom Fuller**

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## ACRONYMS

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<b>CDM</b>	Clean Development Mechanism
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>COP</b>	Conference of the Parties
<b>ETM</b>	Emissions Trading Mechanism
<b>EU</b>	European Union
<b>GHGs</b>	Greenhouse Gases
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>JI</b>	Joint Implementation
<b>KP</b>	Kyoto Protocol
<b>MAFRD</b>	Ministry of Agriculture, Forestry and Rural Development
<b>MEM</b>	Ministry of Energy and Mines
<b>MEPP</b>	Ministry of Environment and Physical Planning
<b>MESP</b>	Ministry of Environment and Spatial Planning
<b>MoU</b>	Memorandum of Understanding
<b>MTT</b>	Ministry of Transport and Telecommunications
<b>NATO</b>	North Atlantic Treaty Organization
<b>UN</b>	United Nations
<b>UNDP</b>	United Nations Development Program
<b>UNEP</b>	United Nations Environment Program
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>UNMIK</b>	United Nations Mission in Kosovo
<b>US</b>	United States
<b>WMO</b>	World Meteorological Organization

## EXECUTIVE SUMMARY

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This December, representatives of around 192 countries gathered in Copenhagen, Denmark for the United Nations Framework Convention on Climate Change Conference (UNFCCC) to forge agreement on a Protocol determining how to collectively combat climate change. This will replace the Kyoto Protocol which expires in 2012, and hopefully correct its shortcomings.

This report highlights Kosovo's position on climate change and outlines a possible strategic approach with reference to UNFCCC and Copenhagen.

Currently, climate change and the environment are not viewed as major priorities by Kosovo's government and people. Focus lies more on economic development and resolving Kosovo's final status as an independent state. However, climate change – a result of the huge quantities of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases (GHGs) that are pumped into the atmosphere – demands Kosovo's attention.

South-eastern Europe and the Balkans are forecast to suffer more than other parts of Europe. Without determined action, Kosovo's attempts at development will be undermined by the impact of climate change on its weather, ecology, water supply, agriculture and economy.

Kosovo will not only suffer the effects of climate change, but is also contributing to it, through three main means:

- **Lignite:** Lignite is Kosovo's primary resource and the likely driver of its future economic growth. However, its use in electricity generation releases an average of 5.8 million tons of CO<sub>2</sub> into the atmosphere annually from the existing two power plants. With the planned construction of a new power plant, it is possible that Kosovo could be responsible for annual CO<sub>2</sub> emissions as high as 22.5 million tons;
- **Vehicles:** The estimated 5.5 million tonnes of CO<sub>2</sub> produced by motor vehicles in Kosovo as a result of outdated emission reduction technologies; and
- **Deforestation:** Unregulated logging of Kosovo's forests is reducing the country's positive contribution to combating climate change through the absorption of CO<sub>2</sub>.

Some might feel that Kosovo has no obligation to act on climate change at this time as it is neither a signatory of the Kyoto Protocol, nor a member of the UNFCCC. However, Kosovo's government is under both moral and constitutional obligations to tackle the problem. Also, by acting now, Kosovo could demonstrate to the world its seriousness as an independent country that is ready to work with others. This can only advance its case for full recognition by the UN and the EU member states.

In comparison to neighbouring Albania, Serbia, Montenegro and Macedonia, Kosovo is the least prepared to deal with climate change. This is reflected by its lack of institutional, human and financial capacity to mount effective responses to the problem. It also lacks the firm demonstration of political will the others have exhibited as they work to be in compliance with the EU to which all aspire to become members.

The climate change conference in Copenhagen presents Kosovo with a challenge as well as an opportunity. While Kosovo, lacking UN membership and thus not included among

UNFCCC members, is not invited, it should still prepare itself to respond to climate change, ideally formulating a strategic approach towards climate change and how to bring itself into conformity with the UNFCCC's objectives.

Such a strategy for the next 20 years should include the following aims:

#### Energy Sector

- Reductions in CO<sub>2</sub> and GHG emissions primarily from lignite power plants (both existing and planned), but also from generators and firewood;
- The implementation of clean coal technologies;
- The use of carbon capture and storage technology in new power plants;
- Developing alternative renewable energy resources (such as wind or solar power) and tax breaks encouraging the private sector to develop appropriate systems;
- Increased energy efficiency; and
- Effective enforcement and implementation of legislation.

#### Transport

- The development of facilities to monitor CO<sub>2</sub> emissions;
- Creating a tax regime encouraging citizens to drive less polluting vehicles; and
- Effective enforcement and implementation of legislation.

#### Deforestation

- Raising political and public awareness of the importance of Kosovo's forests;
- To ensure effective forest management and the enforcement of legislation protecting forests;
- The development of replanting programmes and plans to reduce the use of firewood for heating and cooking.

#### EU 2020

- To work in conformity with EU targets, namely 20% cuts in GHG emissions and energy consumption, and a 20% increase in renewable energy usage, by 2020.

#### UNFCCC

- To comply with UNFCCC commitments as if Kosovo were part of the organisation;
- To develop national and regional programmes for mitigation and adaptation;
- The selection of a base year from which GHG emissions will be measured;
- Produce a 'National Communication' report on progress made in implementing programmes agreed to by the UNFCCC;

- The integration of climate change policies into the country's sustainable development plans;
- To promote and cooperate in the transfer of environmentally-friendly technologies;
- The promotion of relevant research, information exchange, education and capacity building;
- The creation of a national inventory of GHGs; and
- Producing climate change scenarios for social, economic and environmental sectors.

All of these actions are possible for Kosovo to achieve if started now and carried out within timeframes reflective of its institutional and financial capacity. Political will is the most important factor in the possibility of their achievement. The Copenhagen conference presents Kosovo with an ideal starting point.



## CHAPTER 1 CLIMATE CHANGE

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### 1.1 WHAT IS CLIMATE CHANGE AND WHY DOES IT MATTER?

Climate change is probably the greatest economic, social, environmental and political threat to the future of mankind. As a result of rising temperatures, we are already witnessing rising sea levels; melting glaciers, permafrost and Arctic sea ice; increasing sea temperatures; flooding caused by heavier rainfall; extreme droughts and changing ecosystems. It is also probable that climate change has increased the incidence of heat-related illnesses and diseases. The economic costs of climate change are incalculable and could produce political repercussions within and between countries as competition for resources to alleviate losses occurs.

In the past, the Earth's climate changed over time through natural processes: volcanic, marine and meteoroid, among others. However, there is strong evidence suggesting that the earth's current changes cannot be explained by natural variations alone. Humans, through activities such as burning fossil fuels, deforestation and industrial development, are altering the composition of the atmosphere, thus unbalancing the natural process of the greenhouse effect (see **Appendix 1**) and changing the climate.

### 1.2 THE GREENHOUSE EFFECT

The earth is surrounded by a layer of gases which act like the glass walls of a greenhouse. These gases let the sun's rays enter, but stop much of the heat from escaping. This is a natural process and these 'greenhouse gases' or GHGs (mainly carbon dioxide and water vapour) keep the planet warm enough to sustain life. GHGs, which constitute just 1% of the earth's atmosphere, keep the earth around 30°C warmer than it would otherwise be. This effect, as mentioned above, previously changed through natural processes. Since the Industrial Revolution began in the 18<sup>th</sup> century, however, the amount of GHGs, most notably carbon dioxide (CO<sub>2</sub>), that have been released into the atmosphere has increased by 35%<sup>1</sup>. The level of carbon dioxide today is higher than at any point over the last 650,000 years.

### 1.3 WHY HAVE GHG EMISSIONS INCREASED?

Humans are impacting the GHG concentration levels in the atmosphere through 3 major actions:

1. **The burning of fossil fuels** like coal, oil and gas to generate heat and electricity, power transport, and run industries.
2. **Deforestation** on a large scale, to fulfil energy and lifestyle needs. Trees are important because they absorb carbon dioxide. Therefore, with fewer trees, more carbon dioxide builds up in the atmosphere. Also, the agricultural and industrial sites that replace forests can often be an additional source of GHG emissions. The

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<sup>1</sup> Source: Environment Knowledge for Change, <http://www.grida.no/>

Intergovernmental Panel on Climate Change (IPCC) estimates that deforestation produces 5.9 billion tonnes of CO<sub>2</sub> per year, or 18% of global CO<sub>2</sub> emissions.

3. **Global population growth** is leading to an increased demand for food, livestock and energy, which is in turn leading to increased emissions. Humans produce CO<sub>2</sub> just by breathing. At the beginning of the Industrial Revolution (1800) the world's population was less than one billion. This year, it is expected to reach seven billion.

As a result of human influence, the earth has warmed up alarmingly. Over the course of the 20<sup>th</sup> century, global average surface temperatures increased by almost three-quarters of a degree centigrade. A 2007 report by the Intergovernmental Panel on Climate Change (IPCC) stated that the increase in temperatures is indisputable. According to the IPCC and many leading scientists around the world, if we are not able to deal with global warming and climate change, global average surface temperatures will likely rise by between 1.8-4.0°C in the 21<sup>st</sup> century, but may increase by as much as 6.4°C<sup>2</sup>. The impact of such a rise on the world's population would be devastating, especially for the poor and vulnerable.

#### 1.4 INTERNATIONAL ENGAGEMENT WITH CLIMATE CHANGE

Scientists and environmentalists started trying to raise awareness of global warming in the 1980s and were faced with considerable scepticism. Opponents claimed that the world's climate had always varied. However, the increasing body of evidence began to convince more people, and today climate change is widely recognised and has gained attention from government and business leaders through to individuals who see potential harm to their families. As a result, a process was initiated under the auspices of the United Nations to bring governments together to address the problem. This process has been an uphill battle that is still far from over.

In 1988, the IPCC was created by the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO) to assess the scientific knowledge on global warming. Its first major report in 1990 showed that there was a broad international consensus that climate change was both real and affected by human activity.

This report led to the creation of an international convention for climate change which was signed by over 150 countries at the 1992 'Earth Summit' in Rio de Janeiro. This was the first formal, extensive gathering to engage with climate change (see **Appendix 2**) and it led to the creation of the United Nations Framework Convention on Climate Change (UNFCCC) which entered into force in 1994.

At this convention, it was agreed that developed countries needed to take responsibility for reducing GHG emissions. Inherent in this understanding was the recognition that developed nations had been the primary greenhouse gas emitters over the last century, and that emission stabilisation would be more difficult for developing countries.

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<sup>2</sup> IPCC 4<sup>th</sup> Assessment Report 2007, "Climate Change 2007: The Physical Science Basis," IPCC 4<sup>th</sup> Assessment Report

While this conference represented the first step towards tackling climate change by bringing the international community together, there was division between the developed and developing worlds on how best to deal with it. Moreover, the convention was voluntary, so did not set any mandatory limits on emissions and contained no enforcement provisions. Instead, the convention called for updates or “protocols” that would set mandatory emission targets.

The UNFCCC in Rio was the precursor to the Kyoto Protocol. Before the development of the Protocol, a number of preparatory meetings known as Conferences of the Parties (COP) were held in Bonn (1995) and Geneva (1996).

## **1.5 THE KYOTO PROTOCOL**

In December 1997, world leaders met in Kyoto, Japan, where after contentious debate most countries’ representatives signed what has become known as the Kyoto Protocol. This is an international environmental treaty with the goal of achieving “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”<sup>3</sup>. Signatories agreed to the following:

- The largest share of historical and current global emissions of greenhouse gases originated in developed countries;
- Per capita emissions in developing countries were still relatively low;
- The share of global emissions originating in developing countries would grow to meet social and development needs.

Based on these promises, the Protocol established legally binding commitments for the reduction of four GHGs (carbon dioxide, methane, nitrous oxide, and sulphur hexafluoride), and two groups of gases (hydrofluorocarbons and perfluorocarbons) produced by industrialised nations, as well as general commitments for all UNFCCC member countries.

Under the Protocol, 37 developed countries agreed to reduce their collective GHG emissions by 5.2% from their 1990 levels. Developing countries were not obliged to decrease their emissions. Nevertheless, under Article 10, their leaders agreed to improve the quality of reporting of anthropogenic emissions and to “formulate, implement, publish and regularly update national programs containing measures to mitigate climate change and measures to facilitate adequate adaptation to climate change”<sup>4</sup>.

According to Article 25, the Protocol would only enter into force three months after 55 developed countries had ratified it. This occurred in February 2005, after Russia’s ratification the previous November. To date, 187 countries have ratified the Protocol<sup>5</sup>. Unfortunately, the United States is not among them, and serious GHG emitters such as

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<sup>3</sup> Article 2 of the Protocol. Full text is available at [http://unfccc.int/essential\\_background/convention/background/items/2853.php](http://unfccc.int/essential_background/convention/background/items/2853.php)

<sup>4</sup> Article 4.1 (b) of the Protocol.

<sup>5</sup> As of December 2009

China and India are not required to reduce their emissions because of their 'developing country' status.

### **1.5.1 KYOTO PROTOCOL: GHG EMISSION REDUCTION MECHANISMS**

The Kyoto Protocol binds most developed nations to reduce emissions of the six major GHGs through a 'cap and trade' system, in which total emissions are capped and rights to pollute can be traded. Three market-based mechanisms were also introduced, offering states some flexibility in how to reduce their emissions by creating what is now known as the 'carbon market':

**1. Emissions Trading Mechanism (ETM):** This allows emitters (countries, companies or facilities) to buy emissions from or sell emissions to other emitters.

**2. Clean Development Mechanism (CDM):** This allows developed countries to make emission reductions overseas in non-Kyoto countries which count towards their own legal commitments. This is intended to help industrialised countries reduce the costs of meeting their targets by achieving reductions elsewhere.

**3. Joint Implementation (JI):** This allows developed countries to receive emission credits, which can be used for their own emission targets by participating in certain projects with other developed nations. Joint Implementation projects must be approved by all countries participating in the project and must either reduce GHG emissions or contribute to their removal.

It was hoped that these mechanisms would stimulate sustainable development through investment and technology transfer, as well as involvement from the private sector to develop systems to reduce the costs of GHG reduction.

### **1.5.2 KYOTO PROTOCOL: SUCCESS OR FAILURE?**

Many people consider the Kyoto Protocol to have been a failure. Their reasons include that it has simply not done enough to ensure countries take the necessary steps to reduce emissions and achieve targets. Indeed, many signatories have done very little. Further, the US, which is one of the leading emitters of GHGs, has never ratified the Protocol. Political and business leaders in the US, China, India and other key GHG emitters have been understandably concerned about the economic costs of cutting their emissions and the development of new low-emission technologies and procedures.

Another reason for the Protocol's perceived failure has been the incomplete participation and differentiated targets, which created an 'unfair' playing field. Further, the Protocol's aim of reducing emissions by 5.2% is only a fraction of the cuts needed to halt anthropogenic climate change, given the continued and accelerated rate of GHG emissions over the last decade. Some feel the Protocol only sets targets and ignores the required (technical) measures to be taken. Furthermore, there exist no penalties for non-compliance.

In general, the Protocol has often been viewed as naïve and optimistic in what it asked for in such a short timeframe. Further, some might argue that it demanded too much from the developed world, in shouldering the majority of the responsibility and cost and asked too little of developing countries.

Despite these negative points, it is important to remember that the Protocol forced the world to think seriously about the problem of global warming. Public awareness has grown about the effects of climate change on our way of life and our future, and a popular consensus has developed that something must be done. As such, the Protocol at the very least focused humanity's attention on the urgency of this threat to its future.

As 2012 – the end of the first commitment period – draws near, it is clear that emission targets will not be met. As such, the focus has necessarily shifted to the December 2009 UNFCCC meeting in Copenhagen.

## **1.6 AFTER KYOTO**

Even before the Kyoto Protocol came into effect in 2005, the UNFCCC began considering what changes to the Kyoto Protocol could ensure a more effective response to climate change and solve the disagreements between its members, most noticeably through three Conferences of the Parties (COP).

At the Bali COP in 2007, despite much disagreement between members, the Bali 'Road Map' was created. This began a new negotiation process, to be completed in Copenhagen in 2009. At Bali it was acknowledged that two specific issues needed to be dealt with before 2009:

- Action for adapting to the negative consequences of climate change, such as droughts and floods; and
- The deployment of climate friendly technologies and financing adaptation and mitigation measures.

At the Poznan COP in 2008, some progress was made on the above issues, most notably with the establishment of the Adaptation Fund to finance projects in those developing countries that are particularly vulnerable to the effects of climate change. Also, the issue of reducing emissions from deforestation and forest degradation was considered. However, long-term goals for slashing emissions and technology-transfer mechanisms to allow developing countries to move toward low-carbon economies were not created.

In March 2009, the final COP before the Copenhagen conference was convened in Bonn. Negotiations for a draft agreement in preparation for the December conference in Copenhagen were launched. The draft text revealed a continuing divide between rich and poor countries. Developing countries asked their industrialised counterparts to commit to sizeable CO<sub>2</sub> reductions and to offer financial aid, although no commitments were made.

While not directly related to the UNFCCC process, there have been two developments in which industrialised nations have created initiatives to figure out how to deal with climate change.

In late 2008, the European Union declared their aim of reducing GHG emissions by 20% by 2020, and increase both renewable energy use and energy efficiency by 20%. The EU has subsequently tried to encourage countries such as the US, China, Russia and India to follow suit. Anyone who has seen the development of wind farms across Europe can see that EU members are serious on the subject of renewable energy.

On 9<sup>th</sup> July 2009, in L'Aquila, Italy, leaders of the G8 industrial countries met and agreed to try to limit global warming to 2°C above pre-industrial levels by 2050. According to the

scientific consensus, this 2° limit would be the absolute minimum required if the world is to escape catastrophic climate change. The G8 leaders agreed to an 80% reduction of emissions for the developed world and a 50% reduction for the developing world, with the aim of halving emissions by 2050.

They further recognised and pledged commitment to energy efficiency measures and support for renewable energy technologies and clean coal use. They stressed that subsidies encouraging carbon-intensive energy consumption should be slashed, while simultaneously putting in place regulatory frameworks to support transition to a low-carbon economy. In addition, carbon markets were acknowledged as one of the most cost-effective means of boosting investment in energy efficiency, renewable energy and clean technologies.

All these steps served as a prelude to the December 2009 Copenhagen UNFCCC, at which the task remains the rectification of the Kyoto Protocol's failures and oversights. The important developments to consider include:

- GHG emission reductions by developed countries have been limited, arguably predominantly because of the United States' inaction;
- It is likely that Kyoto Protocol's GHG emission targets for the developed world will not be met;
- GHG emissions are actually increasing rather than decreasing. According to the latest (2007) IPCC Report, if the planet's temperature increases more than 2°C above the pre-industrial level, there will be more extreme weather phenomena;
- Reducing GHG emissions is no longer a responsibility just for the developed world as developing countries and emerging economies are catching up, with some (predominantly China and India) emitting more than their developed counterparts;
- The divide between the developed and developing world persists, with developed countries often reluctant to act, citing negative economic impacts, and developing countries reluctant to act unless industrialised states shoulder the burden;
- There is no consensus on whether developing countries should be obliged to commit to binding agreements despite their often weak economic positions; and
- Alternative energy sources need to be researched, developed and exploited.

Based on current rates of GHG emissions, time is running out to strike a deal on cooperatively combating climate change before disaster becomes inevitable. In a speech in Seoul in August 2009, UN Secretary General Ban Ki-Moon echoed this concern, stating that there are "less than 10 years to halt the global rise in greenhouse gas emissions if we are to avoid catastrophic consequences for people and the planet."

## CHAPTER 2 CLIMATE CHANGE AND KOSOVO

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### 2.1 KOSOVO TODAY

Kosovo declared its independence on the 17<sup>th</sup> February, 2008, although it still has not obtained full international recognition of its status as its own country. Most significantly, Kosovo has not been recognised by the UN because of objections from Serbia, China and Russia, the latter two sitting as permanent members of the UN Security Council.

Kosovo is still undergoing transition from a socialist economy into a market-based economy. Since the 1999 military intervention by the North Atlantic Treaty Organization to stop Serbian efforts to drive Albanian Kosovars from the country, Kosovo operated under the guidance of the United Nations Interim Mission in Kosovo (UNMIK) until its independence in 2008.

Over the last ten years, Kosovo has received substantial support from international donors to develop the country. It has also benefited from substantial remittances from relatives working abroad. Kosovo's economy, however, remains weak and unable to sustain itself without such external help. UNMIK and international donor organisations have worked with Kosovars to establish governmental institutions and a legal system. Significantly, as a result of such international involvement and Kosovo's hopes of becoming an EU member in the future, much of the legislation is drafted to be compatible with EU law.

Throughout Kosovo's transition, the environment has not been a high priority for donors or the nascent Kosovo government or society. Environmental issues still receive only limited attention and low priority on the government's agenda, given the multitude of other problems and a lack of resources. As a result, Kosovo continues to suffer from serious environmental problems, including water scarcity and water pollution, industrial waste, land degradation, deforestation and illegal logging, and air pollution.

Climate change, which is directly affected by some of these problems, is perhaps a less obvious problem, but is ultimately more important. It is, however, all but missing from public discourse and concern and lies outside the government's attention.

### 2.2 KOSOVO'S VULNERABILITY

Similar to populations across the world, it is likely that many in Kosovo consider climate change and its effects as a distant problem that may not concern them or Kosovo at all. Others may assume it to be a problem that does not need attention at this time, given more pressing and obvious evident day-to-day issues.

However, experts on climate change anticipate that almost all of Europe will be negatively affected by global warming. Within the continent, southern and south-eastern Europe, including the Balkans, are predicted to be particularly susceptible due to their relatively dry climates. Some of the countries in these regions can be considered to be developing, and lack the financial, institutional, and human capacity to deal with climate change.

Balkan states already appear to be experiencing the effects of rising temperatures, with droughts, flooding, forest fires, crop loss and storm damage. Kosovo's authorities and

population should see climate change as a major threat to their own country and for the Balkans at large. There are a number of causes for concern:

### **2.2.1 CHANGING CLIMATE**

Kosovo is very small country with a predominantly continental climate. It has warm summers and cold winters with Mediterranean and Alpine influences. There are uneven elevations and these bring about regional differences in temperatures and rainfall distribution. Climate change will likely increase already existing variations in the region.

It is projected that Kosovo will have increasingly warmer temperatures and a higher irregularity in precipitation. In fact, Kosovo may already have experienced changing weather patterns, with floods in 2006 and droughts in 2007 and 2008, according to the Kosovo government's water policy advisor, Baton Begolli. Other changes anticipated include increased water stress and damage to Kosovo's biodiversity and ecosystems. There is a risk that, as Kosovo and its neighbours suffer these effects, there could be a rise in regional tensions, as has been seen in the conflicts over water control in other parts of the world.

### **2.2.2 UNSUSTAINABLE DEVELOPMENT**

Climate change could make Kosovo's development difficult or even impossible to sustain. It is expected that a warmer climate will reduce the availability of basic necessities such as water for human use and irrigation, food security, and energy. The links between climate change and sustainable development are strong, especially for poor and developing countries.

### **2.2.3 HEALTH RISKS**

Climate change will not only bring about a warmer world, but also set the stage for an unhealthier one. With a changing, and ultimately warmer, climate, populations around the world will become more vulnerable to heat-related mortality, air pollution-related illnesses, infectious diseases and malnutrition. Kosovo will therefore be at risk of climate-related health crises, from heat waves and famine, to floods and water-borne diseases.

## **2.3 KOSOVO'S CONTRIBUTION TO CLIMATE CHANGE**

Kosovo, though relatively small in both size and population, is a contributor to the processes of climate change. Perhaps for its size, it has a high per capita contribution. There are three major areas where it is contributing to the attack on the earth's climate.

### **2.3.1 POWER GENERATION**

Kosovo is both blessed and cursed by having 14.7 million tons of lignite – the world's 5<sup>th</sup> largest proven reserves – as its main engine of development. Using this resource to generate energy will boost its economic development and benefit the rest of the region through the export of surplus electricity. On the other hand, it will massively increase Kosovo's GHG emissions rate. Currently, Kosovo sources most (98 %) of its energy from two lignite burning power plants (Kosovo A and Kosovo B). According to the Strategic



Environmental Assessment funded by the World Bank, Kosovo A and Kosovo B emitted 5.8 million tons of CO<sub>2</sub> in 2005. In 2006, the Kosovo Energy Corporation's Environmental Department reported that Kosovo B emits more CO<sub>2</sub> (3.6 million tonnes) than Kosovo A (1.5 million tonnes).

Today, these two power plants are in desperate need of replacement or modernisation due to their ageing and inefficient technology. They are heavy polluters, emitting ash and GHGs in large amounts, and unable to provide sufficient electricity to meet Kosovo's energy needs. At this time, Kosovo A is slated for eventual decommission, and the government is in the process of finalising plans for the development of a new power plant with a capacity of 2,100MW in the hope of both meeting domestic energy demands and enabling the young country to become an energy exporter in the Balkans and beyond. Certainly, both the construction of the new plant and the planned exports will be major boosts to Kosovo's economy.

The first unit of Kosovo C is scheduled to begin operation in 2014 with one or two new units to be installed at 18 month intervals thereafter. Initial installed capacity will be between 900 and 1,000MW. According to World Bank calculations<sup>6</sup>, if Kosovo A is decommissioned and Kosovo C reaches full capacity alongside Kosovo B, far greater quantities – around 22.5 million tons – of CO<sub>2</sub> and other GHGs will be emitted. Kosovo is expected to use lignite as its main source of energy continue for at least the next 40 years.

### **2.3.2 VEHICLES**

The majority of vehicles in Kosovo are old models that emit large quantities of GHGs through their exhaust systems. Newer cars and trucks include technology to reduce such emissions. Global estimates account 10% of all GHGs to vehicles. Unofficial estimates by the Kosovo Environment Protection Agency suggest that approximately 5.5 million tons of CO<sub>2</sub> is emitted by Kosovo's vehicles each year<sup>7</sup>.

While the Ministry of Transport and Telecommunications (MTT) and the Ministry of Environment and Spatial Planning should be responsible for obtaining data on emissions by Kosovo's approximately 220,000 registered vehicles, a representative from the MTT stated that this is not conducted<sup>8</sup>. In addition, in 2002, about 30,000 tons of diesel and 25,000 tons of petrol were imported without any quality control check<sup>9</sup>.

### **2.3.3 DEFORESTATION**

Around 40% of Kosovo's 10,904km<sup>2</sup> territory is forested. However, since the end of the war, and probably before, considerable deforestation has occurred as a result of logging –

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<sup>6</sup> Press Release no:2007/107/ECA – Kosovo to Develop Energy Reserves with Help from World Bank and other Donors

<sup>7</sup> Information provided by Ilir Morina (Chief Executive Officer, Kosovo Environmental Protection Agency of MESP) 15/08/2009

<sup>8</sup> Mr. Nebih Shatri (Director of the Vehicle Department), 08/08/2009

<sup>9</sup> Kosovo Environmental Action Plan 2006-2010 (2006), Published by the Ministry of Environment and Spatial Planning, <http://kos.rec.org/english/pdf/KEAPS.pdf>

much of it illegal or unmonitored – for firewood and construction. According to Kosovo's Forestry Department, around 222,000m<sup>3</sup> of wood is exploited annually.

Kosovo's forests need to be seen as an asset to be protected. They are important for their key role in absorbing CO<sub>2</sub>. Reducing forest cover results in greater atmospheric CO<sub>2</sub> levels which in turn result in higher temperatures.

As well as deliberate deforestation, Kosovo loses an average of 40km<sup>2</sup> to forest fires every year. If temperatures rise significantly, the frequency and severity of such fires will increase.

## 2.4 CONSTITUTIONAL OBLIGATION

It can be argued that the government of Kosovo is constitutionally obliged to combat climate change as part of its requirement to protect the country's children, as expressed in points 1 and 4 of Article 50. Climate change will inevitably impact the "...protection and care necessary for..." the "wellbeing" of the children of Kosovo, and the government must ensure that "all actions..." that will be undertaken "...by public or private authorities concerning children shall be in the best interest of the children".

This places responsibility squarely on the government to deal with climate change as this will be in best interest of Kosovo's children and future generations. Article 52, particularly point 3, calls on public institutions to consider the environment in decision making processes. Since climate change concerns the environment, action needs to be taken to deal with it.

## 2.5 DEALING WITH CLIMATE CHANGE

Some might feel that Kosovo is under no obligation or requirement at the moment to act on climate change. Kosovo did not participate in or sign the Kyoto Protocol. Neither is it obliged to adhere to the EU's 2020 Energy and Climate targets (*see page 5*). Whilst this is technically and legally correct, regardless of its non-membership in the UN and the uncertainty over its future with the EU, Kosovo's state has a moral responsibility to its people and to the rest of the world to engage with the problem.

For Kosovo's leaders, economic priorities have outweighed environmental concerns until now, and climate change has hitherto received little attention from the Ministry of Environment and Spatial Planning (MESP), and political and civic leaders generally. This fact is confirmed when one looks at the funds set aside for environmental issues, which is only 0.1% of Kosovo's total budget.<sup>10</sup> In 2009, this equates to around €13 million, and only a small proportion of this will go towards direct anti-climate change initiatives.

Whilst its neighbours are barely out of the starting blocks on combating climate change Kosovo is still very clearly at the back of the pack (*see Appendix 3*). All the Balkan states except Kosovo have ratified the Kyoto Protocol but beyond that have only taken tentative steps. As Kosovo is not a member of the UNFCCC, it probably cannot legally ratify whatever agreement emerges from Copenhagen, although this is a legal avenue worth exploring. Kosovo is, however, a signatory to the Energy Community Treaty which

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<sup>10</sup> Information provided by Iva Stamenova (Task Manager, EU commission), 22/08/2009

commits it to "endeavour" to establish targets and frameworks for significant long-term reductions of GHGs, in keeping with the goal of the Kyoto Convention. Also, Kosovo, along with its neighbours, does have environmental legislation which at least mentions climate change.

### 2.5.1 LEGAL FRAMEWORK

The Assembly of Kosovo has passed about 40 laws that are relevant in some way to fighting climate change, many of which adhere to international standards, although they are mostly unimplemented.

- The **Law on the Protection of the Environment** includes a number of legal instruments ensuring its implementation of the law in Kosovo and ensure the effective promotion of the healthy environment.
- The **Law on Protection of the Air** provides a legal basis for the regulation of air quality, and defines relevant rights and duties, in line with EU and World Health Organization standards.
- The **Law on Sewage** lays out rules on the sustainable development and use of Kosovo's water resources. It also promotes the protection of the water resources from the pollution, exploitation and maltreatment.
- The **Law on the Administration of Waste** creates a legal basis for dealing with waste, with the aim of protecting public health and preventing accumulation.
- The **Law on the Protection of Nature** defines the principles for the protection of nature and regulates its sustainable use, as well as promoting the revitalisation of damaged natural areas and compensating for damage suffered.

Other relevant laws include:

- |                                                      |                                                                |
|------------------------------------------------------|----------------------------------------------------------------|
| • Law on the Protection of the Environment           | • Law on Sanitary Inspections                                  |
| • Law on the Protection of Nature                    | • Law on Energy                                                |
| • Law on the Sewage of Kosovo                        | • Law on Electrical Energy                                     |
| • Law on Wastes                                      | • Law on the Sapling Material                                  |
| • Law on the Strategic Assessment of the Environment | • Law on Construction                                          |
| • Law on the Prevention and Control of the Pollution | • Law on Work from Precious Materials                          |
| • Law on the Protection of Air from Pollution        | • Law on Livestock in Kosovo                                   |
| • Law on the Forests of Kosovo                       | • Law on Watering of Agricultural Lands                        |
| • Law of Kosovo on Seeds                             | • Law on the Care of Animals                                   |
| • Law on Artificial Fertilizer                       | • Law on the Construction Material                             |
| • Law on Roads                                       | • Law on Smoking                                               |
| • Law on Spatial Planning                            | • Law on Hunting                                               |
| • Law on Pesticides                                  | • Law on Meteorology                                           |
|                                                      | • Law on Protection from Fire                                  |
|                                                      | • Law on Industrial Design                                     |
|                                                      | • Law on Protection from Natural Disasters and other Disasters |

- Law on Hydrometeorology Activities
- Law on Fishing and Aquaculture
- Law on the Protection of Plants
- Law on the Protection of Plant Varieties
- Law on Apiculture
- Law on Organic Biology
- Law on Central Heating
- Law on Foods
- Law on Public Private Partnership and the concessions of infrastructure and their procedures
- Law on Agriculture and Rural Development
- Law on Biocide Products

Despite this comprehensive legal foundation on the environment, it lacks any specific legislation or policy on climate change. As such, only minimal steps have been made to conform with EU and UNFCCC standards. MESP has suggested that a strategy will be developed in early 2010, although what form this will take is, at present, unclear.

## 2.5.2 WHAT IS BEING DONE?

There is neither a strategy for reducing GHG emissions, nor one for dealing with climate change generally. In fact, Kosovo has a very limited national GHG inventory<sup>11</sup>, and it remains unclear which year Kosovo will choose as its base year to measure and compare emissions, given the lack of information. A National Focal Point for Climate Change, which is necessary for coordination of climate change issues, has not been established. Further, no national quota or cap for GHG or CO<sub>2</sub> emissions has been determined, and there have not been any assessments of vulnerability and potential mitigation strategies.

Some progress has been made regarding the development of Kosovo's new power plant. A strategic environmental and social impact assessment has been conducted by MESP, funded by the World Bank.<sup>12</sup> Since this plant will be a major future source of GHGs, this is an important step. However, overall little research has been conducted, no efforts have been made to educate the public about climate change, and the country's institutional capacity is limited.

In the beginning of 2009, a Climate Change Office was established in MESP. The Office was hoped to produce a GHG inventory for Kosovo, prepare effective legislation, and communicate with the UNFCCC. There are no specific details on the Office's budget available, and it is only that its funds will come from MESP's budget. However, due to the low salary assigned to the post, the first incumbent resigned, and no replacement has yet been found.

Preparation has begun on a comprehensive air quality assessment, as well as the drafting, adoption, and implementation of regulations on emissions from stationary and mobile sources. One environmental air quality monitoring post is being constructed, and three more are planned.<sup>13</sup>

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<sup>11</sup> A list of GHG emission sources and their quantities.

<sup>12</sup> See Strategic Environmental and Social Assessment Report on Kosovo C, (2008), available at [http://www.lignitepower.com/images/pdf/sesa\\_shortreport\\_eng.pdf](http://www.lignitepower.com/images/pdf/sesa_shortreport_eng.pdf)

<sup>13</sup> to Director of Environment Muhamet Malsiu from Ministry of Environment and Spatial Planning, 16/07/2009

With regards to renewable resource development, Kosovo is currently renovating around 17 hydropower plants for alternative energy generation. Some solar power projects have been built for heating water, but not yet electricity generation. Solar power is viewed as a good long-term solution to counteract the depletion of fossil fuels. However, the technology and production methods required to develop solar electricity are not sophisticated and cheap enough to be competitive in the market, or feasible for Kosovo's limited means.

In 2009, the Ministry of Agriculture, Forestry and Rural Development initiated a plan to plant two million trees. Forests, however, require management and this has been overlooked by the ministry, which seems poorly informed about the magnitude of illegal logging and lacks any means by which to counter it.

Kosovo held its first conference and workshop on the issue of climate change in April 2009 at the initiative of the United Nations Development Program and the MESP. This provided an opportunity to raise awareness of the issue. At the conference, the minister of Environment and Spatial Planning spoke of the important role Kosovo needs to play despite being a small country. At the workshop, Mrs. Stoycheva, a consultant at UNDP Kosovo, pointed out the necessity of action. Her suggestions included conducting assessments of Kosovo's vulnerability to, and possible avenues to mitigate, climate change; developing a climate change strategy; and the implementation of concrete mitigation and adaptation projects, considering capacity development, stakeholder involvement, public awareness, and the mobilisation of financial resources.

Also, in August 2009, some members of MESP and the Ministry of Energy and Mines were invited to attend a seminar on climate change in Bonn, Germany, as observers.

While the legal foundations for dealing with the environment, although not specifically climate change, are now in place, the implementation of these laws and regulations is poor. This can be attributed to the lack of financial, human and institutional resources; inadequate environmental data; limited awareness of climate change; weak inter-ministerial co-ordination and, perhaps most importantly, a lack of political will due to the prioritisation of other issues demanding attention and funds.

Given the above, it is clear that Kosovo has not yet seriously engaged with the issue of climate change, despite the seriousness of the problem. It is in Kosovo's direct interests to shift into high gear, and the following chapter outlines a possible approach involving a number of actions which together would constitute a strategy for Kosovo to step up and play a serious role in combating climate change.

## CHAPTER 3 A STRATEGIC APPROACH FOR KOSOVO

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### 3.1. WHY DOES KOSOVO NEED A STRATEGY?

As stated earlier, global warming is inevitable, but its severity can still be limited, and methods of doing so are widely acknowledged. Kosovo's problems are apparent, and so too are the solutions. In order to achieve change, Kosovo needs to produce a long-term strategy, identifying the steps necessary to arrest climate change as far as possible. Of course, this must take the country's current financial, institutional and legal constraints, including the priority of settling the political contest with Serbia over independence, into account.

A number of methods for states and industries to reduce GHG emissions have been developed by the UNFCCC, most notably carbon emissions trading, clean development mechanisms and joint implementation provisions (for more detail, *see page 4*). However, it is unclear whether Kosovo can gain direct access to any of these programmes at this time, as it is a member of neither the UN nor the UNFCCC. In the interim, Kosovo may need to seek assistance from donors, particularly the EU and the World Bank.

As explained earlier, Kosovo must deal with three specific climate change issues:

1. Emissions from current and planned lignite power plants
2. Emissions from motor vehicles
3. Deforestation

In dealing with the above, mitigation strategies can be put in place.

### 3.2 REDUCING POWER PLANT EMISSIONS

Kosovo's existing and planned power plants represent the country's largest and most obvious contribution to climate change. Yet electricity generation is also its most significant economic opportunity in at least the short-term. Whilst fossil fuels will always emit some GHGs, so-called 'clean coal technologies' have been developed which enable significant reductions in emissions. Modern technology also allows much more efficient coal combustion, which reduces emissions per unit of electricity.

One of the most promising developments for reducing CO<sub>2</sub> emissions from coal and lignite power plants is 'carbon capture and storage' methods, also known as carbon sequestration. This involves trapping CO<sub>2</sub> as it is released, compressing it, and transporting it to a suitable storage site where it is injected into the ground. According to the Strategic Environmental and Social Impact Report by MESP, this technology, which is not yet commercially available for large combustion plants, has the potential of reducing carbon emissions by 80%.

Currently, the tender documents for the new power plant (Kosovo C) are not publicly available. It is therefore not yet clear what will be done to limit CO<sub>2</sub> emissions from the new and old power plants, although the latest technologies will reportedly be included.

### 3.3 ALTERNATIVE ENERGY RESOURCES

Although they would not be able to replace the lignite power plants, Kosovo does have the potential to make use of renewable energy resources such as solar, wind, biomass, and hydroelectricity. Laying out plans on how various alternative energy systems could be developed and expanded in the coming years would represent a significant step. Similar to programmes in other parts of the world, government investment and inducements such as tax breaks could encourage the private sector to develop these systems, profiting Kosovo's economy and environment.

### 3.4 REDUCTION OF GHG AND CO<sub>2</sub> FROM MOTOR VEHICLES:

Vehicles in Kosovo can be made less polluting. This would need to be done in a systematic way within a timeframe allowing for Kosovo's economy and society to adjust. An effective first step would be to begin monitoring vehicular CO<sub>2</sub> emissions. This has been successfully implemented in many other countries, including most of the EU, through annual inspections. People could be encouraged to drive less polluting vehicles through a graduated tax regime, which would incentivise vehicles with better emission reducing technology.

### 3.5 FIGHTING DEFORESTATION

The solution to Kosovo's deforestation problem could be quite simple. Instead of new technology, what is required is political to develop an effective system of forestry management, enforce existing policies for forest protection, and begin a replenishment programme. As part of the latter, the recent government initiative to plant two million trees needs to be pursued and followed up with a systematic replanting program each year.

Further, Kosovo's climate change strategy could also include reductions in the use of firewood for heating and cooking, initially in urban areas. However, such a shift depends on the existence and availability of reliable alternative sources of energy.

### 3.6 ADAPTATION

While mitigation reduces the likelihood of adverse conditions developing, adaptation involves preparing for those adverse conditions that arise. As some level of global warming is inevitable, all societies will need to be ready to cope with an uncertain future. As described on **page 8**, Kosovo has already experienced extreme weather phenomena such as heat waves, floods and forest fires, and this are only likely to increase in frequency and severity. To deal with this, Kosovo will need strategies and measures to adapt. Delaying at this time will only necessitate more painful adaptations later, when the problem is even more urgent.

The following areas are some possible components of an effective adaptation strategy:

- **Information flow:** In order to make informed and effective decisions about adaptive strategies, Kosovo's individuals, businesses, communities and

governments need accurate projections of climate change and its environmental and socioeconomic impact.

- **Flexibility:** Effective adaptation requires flexibility to respond to new information and changing circumstances. Risk management and monitoring allow for flexibility through regular reviews of adopted strategies and developing risks.
- **Anticipatory planning:** Most analysts agree that delayed action will be more costly than anticipatory action. For instance, investment in climate-proofing new infrastructure and housing developments in Kosovo, for example, would be much cheaper than retrofitting or rebuilding later.
- **Mainstreaming:** Mainstreaming is the integration of climate change issues and responses into agriculture, forestry, water, energy, economic, social, health and environmental sectors. Many climate change adaptations synergise with other developments. For example, protecting against the risks of climate variability can often strengthen resilience against long-term climate change.
- **Concrete measures:** Examples of adaptive measures include land management and development policies; early warning systems for heat waves and heavy rains; climate-proofing buildings and infrastructure and drought-proofing measures to improve water security.

### 3.7 ADDRESSING INSTITUTIONAL CONSTRAINTS

Evident in almost every aspect of any effort to tackle climate change will be the constraints of Kosovo's limited human and financial resources. Any approach will require investment to strengthen institutions through procuring equipment, training staff and hiring experts. The current weakness of government institutions and the country's economy means that, in the short-term, Kosovo will be mostly reliant on donor organisations for the necessary financial and human resources.

### 3.8 RESPONDING TO THE EU AND UNFCCC:

There are a number of actions Kosovo can take as part of a strategic approach to bring it in line with the EU and the UNFCCC. Indeed, Kosovo has already started efforts to make its legal and regulatory regime compatible with the EU, and should therefore strive to achieve the EU's 2020 energy and climate goals of cutting GHG emissions and energy consumption by 20% and increase renewable energy use by 20% by 2020.

With respect to the global efforts to tackle climate change, Kosovo should attempt to keep pace with UNFCCC members until Kosovo is able to join the UN and the UNFCCC. In the meantime, it can carry out most actions as if it were a part of the UNFCCC process, which include:

- Establishing national and regional mitigation and adaptation programmes;
- Identifying a base year from which GHG emissions will be measured;
- Producing a 'National Communication' report on progress made in implementing programmes agreed to by the UNFCCC;



- Integrating climate change policies into plans for Kosovo's sustainable development;
- Promoting and cooperating in the transfer of environmentally-friendly technologies;
- Promoting research, information exchange, education and capacity building;
- Creating a national inventory of GHGs;
- Producing climate change scenarios for social, economic and environmental sectors.

By implementing such plans, Kosovo could demonstrate its seriousness towards climate change, and will ensure that Kosovo is in line with the rest of the world. Again, this will require political will and a serious commitment of resources.

Perhaps most importantly, however, if Kosovo acts on climate change, it will demonstrate to the rest of the world that it is a responsible actor among the world's nations. Also, while Kosovo might be a small country in both size and population, it should display acceptance of the shared responsibility to engage with climate change, just as it could share the consequences of a global failure to do so.

## SOURCES

### INDIVIDUALS CONSULTED

<b>Hysen Abazi</b>	Director of Forestry Department, Ministry of Agriculture, Forestry and Rural Development
<b>Fatos Aliu</b>	Head of Division for Energy Systems and Environment: Ministry of Energy and Mines
<b>Baton Begolli</b>	Water Policy Advisor, Office of the Government
<b>Agron Bektashi</b>	National Project Coordinator, Environmental Hot spots Project (UNDP)
<b>Michael L. Boyd</b>	Senior Energy Advisor, Economic Growth Office, (USAID)
<b>Edon Cana</b>	Chief Executive Officer: Agency for Coordination of Development and EU Integration
<b>Shkipe Deda</b>	Local Project Manager, Milieu Kontakt International Kosovo
<b>Ardian Gjini</b>	Leader of the Kosovo Opposition Party
<b>Lorik Haxhiu</b>	Project Manager, Kosovo C power plant (World Bank)
<b>Lulzim Korenica</b>	Head of Sector for Environment, Ministry of Energy and Mines
<b>Naser Krasniqi</b>	National Coordinator, FAO
<b>Deme Lokhaj</b>	Director for Forest Management
<b>Muhammet Malsiu</b>	Director of Environment Department, Ministry of Environment and Spatial Planning
<b>Kazuki Matsuura</b>	Programme Analyst, UNDP Kosovo
<b>Lisa Mattisson</b>	Environment Programme Specialist, UNDP Kosovo
<b>Hilmi Morina</b>	Director, Energy Department, Ministry of Energy and Mines
<b>Ilir Morina</b>	Head of Kosovo Environment Protection Agency
<b>Arben Nagovji</b>	USAID Kosovo
<b>Loan Shllaku</b>	Head of Kosovo Foundation for Open Society
<b>Iva Stamenova</b>	Liason Office, Natural Resources and Environment, EU Commission in Kosovo
<b>Zeqir Veselaj</b>	Director of REC Field Office
<b>Edon Vrenezi</b>	Operation Officer, Sustainable Development, Energy, Environment, Transport (World Bank Kosovo)

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#### CLIMATE CHANGE CONFERENCE PRESENTATIONS<sup>14</sup>

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- Anna Kaplina, "Climate Change as Human Development Challenge"
- "Climate Change at UNDP: Scaling Up to Meet the Challenge"
- Teodora O. Grncarovska "Climate Change issues and the Republic of Macedonia." (Ministry of Environment and Physical Planning)
- Shpresa Mezini "Country's experience in the frame of the UNFCCC National Communications" (Ministry of Environment, Forestry and Water Administration Albania)
- Maria Khovanskaya "Experiences of Climate Change issues in South East Europe" (REC UNDP)

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<sup>14</sup> Held in Pristina, 28-29 April, 2009.

- Daniela Stoycheva “Global Climate Change Governance – UNFCCC and Kyoto Protocol” (UNDP)
- Andrew Karam & Ronald Meyers “Individual Contributions to Meeting Climate Change Challenges” (American University in Kosovo)
- Lučka Kajfež Bogataj “Key findings from the Fourth Assessment Report of IPCC” (WG2 former Vice-chair, IPCC University of Ljubljana, Slovenia)
- Ute Rodrian “KfW’s role on Climate Change issues,” (Regional Office, Tirana, Pristina, Skopje)
- Nebojša Jablan “Montenegro: Short overview of the climate change and energy status, regional/cross-border projects, reporting”
- Ilir Morina “The state of the Environment in Kosovo and Climate change”

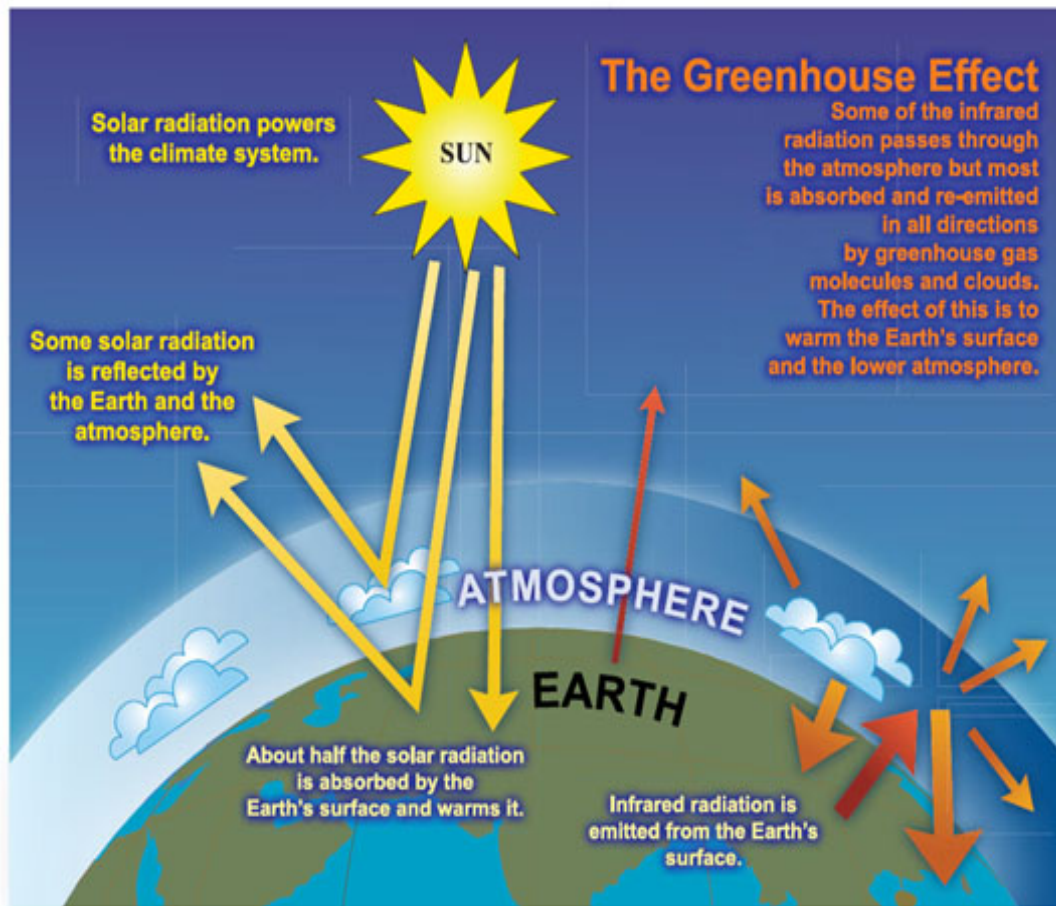
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### WEBSITES

- <http://unfccc.int/> United Nations Convention Framework on Climate Change
- <http://www.ks-gov.net/mem/> Ministry of Energy and Mines
- [http://www.ks-gov.net/mmph/english/index\\_eng.htm](http://www.ks-gov.net/mmph/english/index_eng.htm) Ministry of Environment and Spatial Planning
- <http://www.mbpzhr-ks.org/indexeng.php> Ministry of Agriculture, Forestry and Rural Development
- <http://www.rec.org/> Regional Environmental Center for Central and Eastern Europe
- [www.policynetwork.net](http://www.policynetwork.net) Policy Network

## APPENDIX 1 THE GREENHOUSE EFFECT

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Source: <http://www.global-greenhouse-warming.com/images/GreenhouseEffectDiagram.jpg>

## APPENDIX 2 CLIMATE CHANGE MILESTONES

1979	<b>1st World Climate Conference</b> <ul style="list-style-type: none"> <li>- Climate as a vital natural resource</li> <li>- Live in harmony with nature</li> <li>- Governments should 'foresee and prevent potential man-made changes in climate that might be adverse to the well-being of humanity'</li> </ul>
1987	<b>Brundtland Commission Report</b> <ul style="list-style-type: none"> <li>- Need to adopt a sustainable development path that would help meet present needs while leaving enough resources to meet future needs. Precedent set by successful negotiation of <b>Montreal Protocol</b></li> </ul>
1988	WMO and UNEP establish <b>IPCC</b> (Intergovernmental Panel on Climate Change)
1989	UN General Assembly Resolution calls for <b>global summit</b> on environment and development issues
1990	<b>First Assessment Report of IPCC published</b> UN General Assembly resolution establishes INC (Intergovernmental Negotiating Committee) to draft a framework convention
February 1991 to May 1992	Representatives of 160 nations negotiate key issues <ul style="list-style-type: none"> <li>- Commitments to emission targets</li> <li>- Provisions for technology transfer and financial resources to developing countries</li> </ul>
May 1992	<b>INC adopts UNFCCC</b> (United Nations Framework Convention on Climate Change)
June 1992	UNFCCC opened for signature at <b>United Nations Conference on Environment and Development (Rio Earth Summit)</b>
21 March 1994	<b>UNFCCC</b> comes into force on 21 March 1994 (ratified by 186 countries as of July 2002) <ul style="list-style-type: none"> <li>- No legally binding targets (Annex I countries to return to 1990 levels by the end of the decade)</li> <li>- Submit National Communications</li> </ul>
April 1995	First Conference of Parties ( <b>COP-1</b> ) in Berlin adopts the <b>Berlin Mandate</b> . New round of negotiations launched on a 'protocol or other legal instrument' <ul style="list-style-type: none"> <li>- No new commitments for non-Annex I countries</li> <li>- Introduction of Activities Implemented Jointly (AIJ) - voluntary cooperative GHG-mitigation projects</li> </ul>

December 1995	<b>IPCC approves its Second Assessment Report.</b> Its findings underline the need for strong policy action. - The balance of evidence suggests a discernible human influence on global climate - Significant 'no regrets' opportunities available - Potential risk of damage sufficient to justify action beyond 'no regrets'
July 1996	<b>COP-2</b> in Geneva takes note of the <b>Geneva Ministerial Declaration</b> , which acts as a further impetus to the on-going negotiations - Scientific research provides basis for urgently strengthening action - World faces significant, often adverse impacts from climate change - Legally-binding significant overall reductions in GHG emissions to be negotiated by the next COP
December 1997	<b>COP-3</b> meeting in Kyoto adopts the <b>Kyoto Protocol</b> to the UN Framework Convention on Climate Change
March 1998	<b>Kyoto Protocol</b> opened for signature at UN headquarters in New York. Over a one-year period, it receives 84 signatures
November 1998	<b>COP-4</b> meeting in Buenos Aires adopts the <b>Buenos Aires Plan of Action</b> setting out a programme of work on the operational details of the Kyoto Protocol and the implementation of the Convention. COP-6 set as deadline for adopting many important decisions
November 1999	<b>COP-5</b> in Bonn sets an aggressive timetable to achieve measurable progress by COP-6 on the entry into force of the Kyoto Protocol
November 2000	<b>COP-6</b> meets in The Hague, but fails to agree on a package of decisions under the Buenos Aires Plan of Action
July 2001	<b>COP-6 part II</b> (or COP-6b) resumes in Bonn. Parties adopt the <b>Bonn Agreements</b> , registering political consensus on key issues under the Buenos Aires Plan of Action. They also complete work on a series of detailed decisions, but some remain outstanding
October/November 2001	<b>COP-7</b> in Marrakesh finalizes and formally adopts COP-6b decisions as the <b>Marrakesh Accords</b>
October/November 2002	<b>COP-8</b> to be held in New Delhi

Source: [http://www.envfor.nic.in/cc/int\\_nego/timeline.htm](http://www.envfor.nic.in/cc/int_nego/timeline.htm)



## **APPENDIX 3 REGIONAL POLICIES**

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### **1. ALBANIA**

Albania submitted its second national communication to the UNFCCC in November 2009. It is in the process of developing a climate change communication strategy and a 'carbon financing strategy'. It has further undertaken some projects on carbon financing, solar water-heating, climate change adaptation, CDM development and creating carbon neutral territories.

### **2. MACEDONIA**

Macedonia has sent two national communications to the UNFCCC, the most recent one in December 2008. A year earlier, it established a national strategy for CDM (2008-2012) and a national strategy for the adoption of the Environmental Community. Macedonia has also adopted a National Environmental Investment Strategy which highlights the potential of carbon financing for attracting foreign investments.

Under its environmental law, Macedonia has the following three foci:

- Preparation of an inventory for GHG emissions and removals by sinks
- Development of a plan for climate change mitigation and adaptation
- Development of clean development mechanisms

At the institutional level, Macedonia has a national climate change coordinator within the Ministry of Environment and Physical Planning. There is also a designated national authority to deal with activities related to CDM.

Macedonia has signed a bilateral memorandum of understanding on carbon financing with the Italian and Slovenian governments and the UNDP.

### **3. MONTENEGRO**

Montenegro ratified the Kyoto Protocol in 2007. As a result, it is aiming to submit its first national communication to the UNFCCC by 2010. A draft GHG national inventory for 1990 (its base year), 1998 and 2003 have been created.

In 2007, Montenegro's government produced a national strategy for sustainable development which aims at the integration of climate change responses into sectoral policies. The country is aligning its national legislation with EU standards on climate change and energy.

Additional documents and legislation created in Macedonia include:

- Energy policy and an energy efficiency strategy, 2005
- Small Hydro Power Plants Development Strategy, 2006

- Energy Community Treaty, ratified in October 2006
- Study on Assessment of Renewables Potential – wind, solar energy and biomass (2007)
- Energy Development Strategy until 2025, 2007
- Established a Designated National Authority for CDM projects (February 2008) as Single Ministry Model (within the Ministry of Tourism and Environment)
- Established National Environment Agency with CC department (November 2008)
- Identified CDM projects in solid municipal waste, renewable energy, energy efficiency and carbon sequestration (2007)
- Issued Call for expression of interest for co-financing preparation of feasibility studies for identified potential emission reduction projects under CDM (March 2008)
- An expressed desire to meet the objectives of the EU's Energy and Climate Strategy

#### **4. SERBIA**

Serbia ratified the Kyoto Protocol in 2007, with it entering into force in 2008. As a result, Serbia has not yet submitted its first national communication to the UNFCCC. Serbia also does not yet have a national climate strategy, which projected to begin enforcement in 2011. In 2008, a national strategy on sustainable development was adopted, which does contain references to climate change.

**It should be noted that budgetary information on climate change-related initiatives for countries in the region could not be made available despite efforts to acquire it from government sources.**