

Ladies and Gentlemen,

It is my honour, as a Mayor of the City of Skopje, capital of Macedonia - the host country of this important conference, to address you by wishing you welcome and introduce you to already implemented activities aimed at adaptation to climate change, and for all that the City of Skopje is currently doing and planning to implement in the future.

Dear all,

We live in a world where climate is changing. Climate changes have taken place since the formation of our planet, but now people affect the process and cause changes in unpredictable consequences.

Regardless of whether caused by human activities, or part of the natural cycle of the planet, experts agree on two things:

- that climate change must be understood as a serious threat to the environment, human health, the availability of natural resources and food, economy, infrastructure and the quality of life;
- the devastating consequences of climate change will affect everyone, regardless of location, economic development and the size of the community where people live, wherein these factors can affect only the willingness of the community to respond to these consequences.

Having known that the Earth is becoming urban planet, that more than 50% of the world's population and 75% of Europe's population now live in cities, it is expected that the most severe consequences will be suffered by the population in urban areas. Climate change is a global problem, but the consequences will be felt where they are caused, on the regional and local level, and there these problems will become an increasing cause for concern and action planned. Cities are vulnerable due to the large concentration of population and buildings on a small area, but also because of the dependence of the infrastructure, without which life in the cities could not be imagined, and which are firstly affected of the consequences of climate change.

The way of the impact and severity of the climate change consequences will vary from city to city, however, the main problems are in common:

- In most cities the intensity of rainfall will increase, as well as the additional risk of flooding;
- Drought periods are to be expected, for which lack of food and water will occur;
- Strong winds and storms will occur more often, that will impact the cities and their infrastructure;
- Erosions and landslides will occur;
- All previously mentioned changes will affect the traffic infrastructure, thereby disrupting the life in cities;
- A greater need for energy will occur, in order to overcome the problems;
- The economy will have to adjust to the emerging conditions and situations;
- Human health will be harmed due to heat waves, water scarcity, the emergence of infectious diseases in the climate regions where formerly not recorded;
- Plants and animals will change their natural cycles caused by new natural processes;

- Suburban regions, that is, surrounding areas of the cities will be affected by droughts, fires, reduction of agricultural yields, etc.

Confronted with the problems, more cities until recently had been focused on reducing emissions of greenhouse gases to slow down the rate of climate change. Commonly undertaken activities are in the field of energy efficiency, use of renewable energy sources, improvements in public transport, use of the opportunity to develop CDM projects and so on.

However, it became clear that these long-term planned measures, through which cities can make an important contribution to reducing greenhouse gas emissions, are not sufficient to solve our problems, because if in some enchanting way we could suddenly stop all greenhouse gas emission on a global level, climate changes will continue to happen. Greenhouse gases accumulated in the atmosphere will continue to change the climate. Therefore, measures to reduce the vulnerability of the population of current and future climate impacts is of vital importance. What our imperative is to succeed to predict what will happen in our communities, and to take actions to prevent and reduce the impact of these developments.

European Commission, recognizing the fact that the key to fighting climate change lies in the hands of managers of dynamical processes in urban areas, in 2009 launched the initiative to establish the Covenant of Mayors, which aims to strengthen the activities of local authorities addressing the problems of climate change. With this document, almost 6,000 municipalities with the total of 190 million people in Europe and beyond, are united with the efforts to increase energy efficiency and use of renewable energy sources on their territories.

By signing the Charter, signatory cities should exceed the targets set by the EU for 2020, reducing the emission of carbon dioxide by at least 20% in the cities and preparing of an Action Plan for sustainable energy (SEAP) including inventory of basic emitters that will give the guidelines for the achievement of those goals. It is my honour to be the signer of the Covenant of Mayors in 2010 in Brussels on behalf of the City of Skopje, which was the beginning of many activities of the City of Skopje, that are continuation of the previously initiated activities.

Namely, even in 2009, the City prepared a Study on Energy Efficiency of the buildings under the jurisdiction of the City of Skopje, which includes 68 objects from the fields of culture, education and administration, and public street lighting and traffic lights, a document where energy consumption is analysed and where benefits are predicted from the energy and construction undertakings for each of the buildings, and, in terms of emissions, disbursements and savings.

As a result of the signing of the Covenant of Mayors, the City of Skopje has developed its Sustainable Energy Action Plan (SEAP) to 2020, which was adopted by the Council of the City of Skopje in 2011.

According to the study in 2009 and SEAP since 2011, in the following years the City of Skopje implemented the following activities:

- Within the City Administration, Office for Energy Management and Info- centre for energy efficiency are functioning, where citizens can be informed regarding possibilities of energy saving and use of energy from renewable sources;
- A Program for energy efficiency for the period 2012-2015 has been developed;
- Study of the possibilities of using renewable resources in the City of Skopje was prepared;
- Technical documentation was prepared - project for reconstruction of buildings of high schools that are under the jurisdiction of the City of Skopje;

- A change of drive fuel in the heating system of two high schools;
- Ongoing change of the facade of one high school in energy efficiency manner;
- Economic regulation was made of heat stations, that is, systems with secondary regulation, which includes facilities in which the administration of the City of Skopje and 21 high schools are placed;
- A change with energy efficient windows on the objects under the jurisdiction of the City of Skopje;
- Energy efficient lamps were purchased for the buildings under the jurisdiction of the City of Skopje;
- Around 90% of street lights were replaced with new sodium lights that are energy efficient, on the streets under the jurisdiction of the City of Skopje;
- Project for the placement of LED lamps on traffic lights and energy efficient lamps on the chandeliers for park lightning is currently in the process of realisation;
- Lighting with photovoltaic panels that transform solar energy into electricity in two viewpoints of Vodno hill are placed, which presents a protected natural site and a recreational destination for citizens.

Starting with the same goal, City of Skopje is a member of the Network of Energy Capitals in Southeast Europe, which are signatories of the Covenant of Mayors. In the countries of South-Eastern Europe more than 30% of the population lives in the capital cities, which is the reason that in 2009, these cities began their collaboration in the field of energy management, identifying the need to take on responsibilities and recognizing the lead role of capital cities in fighting against climate change. This cooperation is transmitted into a network of energy-efficient capitals in 2011, where all partner cities clearly demonstrated a commitment to continue to cooperate in the implementation of activities related to the efficient use of energy.

On 5 June this year, on the World Day of the Preservation of the Environment, the cities of the Network of Energy Capitals in Southeast Europe: Zagreb, Sarajevo, Podgorica, Tirana, Skopje and Freiburg as the model city, signed a Memorandum of cooperation in Skopje, supported by the German Government through GIZ. The purpose of this memorandum is to define future activities and cooperation between partners in the network. On that occasion, Executive Director of GIZ for Macedonia and Kosovo expressed his satisfaction with the highlight examples Skopje as its capital, and that the implementation of specific projects of the City of Skopje represent a model which practices should be followed by other cities.

Membership of the City of Skopje in these international networks is an excellent opportunity for mutual understanding of the problems that are affecting all of us, and for the ways to deal with them, for planning of common actions, exchange of experiences and so on. On the other hand, the City of Skopje is a community of 10 municipalities, and activities of common interest are planned and implemented by the Coordinating Body of the Mayor. Macedonia is a small country regarding the area, so the natural events affecting large parts of its territory, thus the occurrence of the consequences of climate change is in common for numerous of cities in the country. The fellowship of the actions of the cities in the Republic of Macedonia was provided by the Association of the Units of local self-government of the Republic of Macedonia (ZELS). I emphasize this to underline the need for a high level of coordination between national and local governments, business leaders and citizens within the country, especially among the units of local governments, as well as the regional and international cooperation.

As president of ZELS, I would like to stress out the fact that within the contract signed with the Network of Associations of Local Authorities of South East Europe, ZELS have prepared an Action Plan for the Development of Local Initiatives to deal with climate change that defines the solutions, infrastructure and activities in ZELS and in municipalities in the country for building capabilities for dealing with the risks and impacts of climate change.

When we talk about climate change and potential, and we can freely say inevitable, consequences for the residents of the City of Skopje, we are aware of the risks we face:

- The danger of floods. Skopje has regulated its main basin of water flow - the river Vardar after the devastating earthquake in 1963, and in that manner we are not under a serious threat. However, after leaving the urban area, downstream from the city, failures of regulation in two points were recorded, for which remediation has been working on along with the concrete municipality on which area it is located. The City of Skopje has prepared an updated plan for flood protection, which implementation is processed in cooperation with the Centre for Crisis Management of the Republic of Macedonia;
- Increased risk of groundwater, especially in buildings near the river Vardar and beyond, due to high groundwater levels in Skopje valley;
- Lack of complete separation of faecal sewage and storm water drains is a problem that the City of Skopje has been working on and will engage in the future together with its public company Water and Sanitation;
- The occurrence of erosion, subsidence and landslides on the ground, which has already been recorded on the slopes of Vodno hill;
- The possibility of occurrence of strong winds that negatively affect the vegetation and buildings;
- The occurrence of heat waves and so called “hot islands” in the city;
- The exposure to strong solar radiation on the buildings on west and south-west orientation;
- Great exposure to the sun on the boulevards and pedestrian zones in the city central area that does not have a lot of vegetation, as well as on the residential buildings without greenery blocks.

Considering all mentioned problems, the City of Skopje plans its activities in order to overcome them, and under the authority of the City sector, the following activities are being realised, which are directly or directly in tight connection with the problems of climate change:

- With the technical assistance from the Swedish agency SIDA, an overview of the sustainability of the City of Skopje is made;
- Environmental footprint of the City of Skopje preparation should start,
- With the help of UNDP, two applications for NAMA (National Appropriate Mitigation Activities) are finished, for transport and energy efficiency, for getting assistance for the implementation of the activities for reducing climate changes;
- Annually, mezzo-meteorological measurements are carried out, and it has been working on the construction of the network of automated measuring stations for that purpose, so that through climatological - statistical treatment of the results, we can obtain basic indicators of

weather conditions in the urban area during the year, and with multi-annual continuous measurement to obtain indicators of climate change in Skopje valley;

- With extremely high attention and financial resources, monitoring of groundwater in Skopje valley and on the waters that nourish the springs for the Skopje's water is being implemented, which includes the coverage of a large part of the territory of the Republic of Macedonia;
- There is an ongoing project for finding the new sources for water supply system, with quality water;
- There is an ongoing project to monitor the water quality in the Vardar river and the commercial outputs in the river;
- It has been working intensively through MEPP on getting investment from IPA funds to build a treatment plant for municipal waste water and the collection system;
- Improvements were made to the service of collection of municipal waste, and it is extended to the rural parts of the city;
- We are in the process of completing the first phase of rehabilitation and remediation of former landfill Vardariste;
- A plan was adopted for sustainable transportation system of the City of Skopje, developed within the RENAISSANCE project and it has been implemented in continuity;
- With the help of the Government of Macedonia, in public transport 302 new buses with engines with EURO 4 and EURO 5 standards were included;
- Already started operation with a major project of the City - Centre for the Management and Control of traffic in Skopje;
- With the help of the Government, a cable car to the top of the Vodno hill was built;
- A solar charger has been set in the city centre for the needs of the citizens;
- It has been working on setting of a charger for electric cars in the city;
- Five electric cars were purchased that will be used for touristic purposes;
- Bike rental points were set and we are continuously working on to expand the network and increase the number of bicycles;
- Bike paths were renewed and built, mostly on both sides of the river Vardar quay and on the boulevards and streets, and also being signalised;
- Continuously expand and build new roads, improving conditions for pedestrians, build new bridges, circuits, etc., all in the manner of improving the traffic;
- Activities were started to introduce tram traffic in the city;
- We have been working very seriously on the maintenance of public green spaces and protected natural sites, as well as on the raising of new seedlings of tree rows as part of boulevards' foliage, as a commitment to the protection of air and soil pollution, as well as adaptation measures to climate changes. For 4 years, 50,000 deciduous, evergreen trees and bush plants were planted, tree alleys on the boulevards were recovered, new flowerpots were

planted, 308,000 m<sup>2</sup> area were raised and reconstructed, a hydrant network of 37 km was made, and new 1,000,000 flowers were seeded and 30,000 roses.

In this listing of the engagement of the City of Skopje, I would like to emphasize one set of activities of the City that is specifically aimed at dealing with climate change:

- The City of Skopje is actively involved in the Climate Change and Health project, funded by the World Health Organization and implemented by the Ministry of Health of the Republic of Macedonia, whereby a new strategy was developed, A Strategy for Health Sector Adaptation of climate changes with the Action Plan and the Action Plan for the decrease of consequences of heat waves and infectious conditions. These documents envisage activities of the City of Skopje: performing continuous measurements mezzo-meteorological measurements in Skopje valley, air monitoring, water monitoring, monitoring of surface water flows, municipal waste management, etc., which the City of Skopje have been realizing;
- From this project arises the next one, supported by the World Health Organization, a Pilot Study for Estimation of Economic Impacts of Climate Change on health in the City, with a focus on heat waves, which will provide understanding of the economic and financial impacts of climate change in the city and will propose alternative and complementary activities in the relevant area;
- In collaboration with GIZ in the next period a review of the implementation of SEAP in the City, and report for Brussels will be prepared;
- Within RESITIS (REECities), a project for sustainable management of natural resources is being prepared, as well as the supplementation of SEAP in the waste sector, that is, an overview will be prepared of energy utilization of waste while a feasibility study for the use of renewable energy has been finalized;
- With the support of UNDP, we are about to start making of a very important project for the city of Skopje – GHG Inventory for the City of Skopje, which will provide a double benefit: with the sections that it will provided, it will enable periodic observation of the movement of greenhouse gases, and on the other hand it will provide quantified data on the causes of greenhouse gas emission and will give guidance for the action their decrease;
- And of course, what the City of Skopje is planning for next year, is to negotiate with UNDP for their support for the development of a Strategy for Reduction and Adaptation to climate change for the City of Skopje;
- It is the final stage of the Study of Greening and Reforestation of the City of Skopje, a document that will set the guidelines for getting green infrastructure within the urban environment that will be continuous, connected to the environment, that will create ambient sections, areas that need to create values in the urban area which will be measured by the improvement of living conditions, a document that will bring new levels to the City's perspectives with the making of green facades and rooftop parks, which will be one of the factors for adaptation of climate change;
- In collaboration with its public enterprises, the City of Skopje is providing public fountains for drinking water in the entire area of the city, and their smooth functioning in the summer months, and continuously and timely collection of municipal waste for the reduction of the conditions for developing infectious diseases, in which order channels are kept open;
- In collaboration with the Red Cross of the City of Skopje, in the period of summer months and heat waves, the City is providing bottled water for passers-by, and also a stationary was

opened for the homeless for their care on the daily basis, hygiene maintenance, nutrition and medical care especially during summer heat waves and cold waves in winter, and social packages for vulnerable individuals and families in such weather are provided;

- Finally, the City of Skopje initiates the activities for the entrance to the Healthy Cities Network, which is very inspiring in terms of thought and implementation of appropriate projects that will improve the living conditions of the citizens of the City of Skopje;
- In the same manner, the City of Skopje appreciates the opportunity to use the benefits of the alert for heat waves and alert for prevention of forest fires within the system for assessing the risk of forest fires.

Let me finally say the following:

Skopje remember its 2000 years old history, the history full of conquest, war destruction and natural disasters, but also history full of persistence, consistency, love and devotion to the city, thus the motto of our city is not random, which states: Life is short, Skopje is forever.

Hence, I would like to quote Professor Robert Dawson, the author of the sphere of climate change, who paraphrasing Charles Darwin said: "The strongest cities will not survive, but those who best adapt to change." I honestly believe that Skopje will be part of those cities.