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CLIMATE
CHANGE

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NATIONAL TARGETS on Climate Change

I would like to thank you all for coming, especially representatives of local governments. First of all, I want to thank the city of Belgrade and the Secretariat for Environmental Protection. Also, I am grateful to the mayor's cabinet, with whom we have very good cooperation. In the case of Belgrade, which already has some experience in the realization of the national plan and projects like the one in relation to the district heating, we can learn a lot. Smaller towns can use this experience in near future. When I was preparing for today's presentation entitled "National targets on climate change", the first what I had in mind was the word – goal! What I faced myself is whether we are talking about the goal or the means?

Definitively, for all those who have high ethical standards and moral code, the fight against climate change is the goal. Because everything we do, everything that we are carrying out today brings us to the question of what will be in 2050?

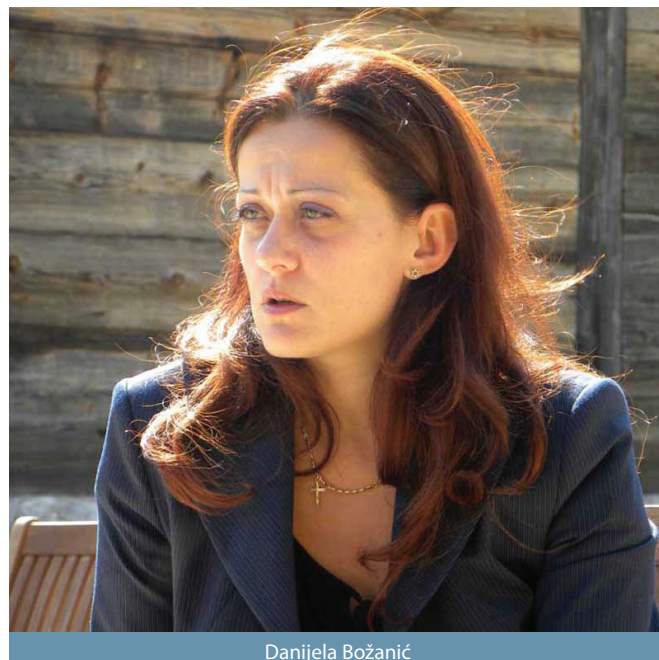
On the other hand, we live in a world where despite the moral ones, there are also people who are engaged only in business and who are guided by interest or profit. For this kind of people fight against climate change is often means.

The fact that we have reached a point when the world needs other things, different industry and all these can be achieved with different methods of production, new technologies and innovations that contribute to the reduction of greenhouse gases. This topic is a global problem and because of this the Paris Agreement is significant. Why exactly do we believe that it is important? Because it defines a general objective. It is said: it is necessary to reduce greenhouse gas emissions!

Kyoto protocol defined in 2012 some guidance, gave us a framework, but then we found ourselves in a sling. What should we do, what are common guidelines, and did everything become undefined? The answer to these questions was given by the Paris Agreement in 2015.



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средине**



Danijela Božanić

The Paris Agreement entered into force on 4.11.2016 and it will be valid from 2020. So, we have enough time to implement all that is needed by 2020, even if we start our fight now, if we already haven't. It is necessary to improve our capacity. What must be emphasized is that the Paris Agreement was supported by 195 countries. There are not many agreements that have such a consensus.

The Agreement deals with the reduction of emissions, adaptation and resistance increase. Keep in mind that the reduction of emissions and adaptation is nothing new. It is about all the activities that local governments implement, but they should be improved and adapted. And all this only to realize that we cannot operate in the same way. In the case of infrastructure, we cannot build as we used to in the last 40,50 years. Everything we do, now we must take into an account what is happening to us, new climate projections and anticipated scenarios which scientist confirmed as probable.

It often happens that emissions in the air are mixed with greenhouse gas emissions. When performing something in order to reduce emissions of greenhouse gases – you are doing activities in the field of fight against climate change.

We have heard many times that this is a global problem and that is why the Agreement was based on the national contribution of member states. In this context, we can follow and say that at



some point in the future: Okay, member states have achieved their national contribution to the fight! A certain number of countries including Serbia, have given a plan of measures and projections for climate scenarios. If nothing else, 2014 and unprecedented floods that we experienced was enough for us. So, we have goals, but they need to be revised, renewed and deliver the new ones for 2020, and then for 2025 and 2030. And we need to prepare a long-term strategy for the end of the century.

Why? Because the strategy leads us to the goal, and the regulations lead us to the execution of a target in a short term or long term, in distant 2020.

In that sense, Serbia is submitted its national contribution in June 2015 and practical achievement of these contributions will mostly depend on what is performed by local governments. At the same time, our goal is to engage, during the development of strategy, local communities, non-governmental organizations and individuals in order to come up with a document that would make sense and suitably achievable goals.

What we have identified and what we want to identify with this strategy are the possibilities to adapt at the national level, and key factors for achieving these goals are: innovations, individuals, Serbian towns, local government. We need also companies in this fight.

Of course, for achieving any goals, money is needed above all. We often say that we cannot achieve something unless we have resources. Everything that we do in the fight against climate change in order to reduce the effects of climate change will be a new field for financing.

Green Climate Fund will start working operatively, which we all expect. This Fund is provided by the Law on Environment. Secondly, there are great chances to withdraw funds from the EU for certain programs. Thus, programs that may be regional in character and not only small projects. Other ministries will be able to take these funds, not only small projects. It is important that the projects are related to the reduction of greenhouse gases. We want to be engage in all the activities of the private sector and I am personally convinced that this sector is much more sensitive and better understands all these efforts. Thank you all and please follow portal www.klimatskepromene.rs, where you can find all the latest information in this field.

The speech of Danijela Bozanic, the Head of Climate Change Unit at the Ministry of Agriculture and Environment Protection, on 26th October, 2016 in the French Institute in Belgrade at a conference "Climate Change and Health"



GREEN CLIMATE FUND

Will Be the Biggest Financial Mechanism

Climate change is a global problem and the obligation of each country is to actively participate in the fight against all these changes. Serbia plans to ratify the Paris Climate Agreement by mid-2017 and it will soon pass the Law on Reducing the Greenhouse Gas Emission. The beginning of work on the Strategy on Climate Change was promoted during September 2016 in the Serbian Chamber of Commerce. At numerous meetings during 2015 and 2016, you could hear that Serbia would be able to use international funds for the implementation of its obligations in the fight against climate change, as well as certain EU funds. During June 2016 in the French Embassy in Belgrade, the advisor of permanent UN coordinator in Serbia, Mrs. Borka Jeremić stated that the new framework of the development partnership with Serbia for the period from 2016 to 2020 envisaged the support to Serbian Government in developing the capacities for climate change and managing natural resources. State Secretary in the Ministry of Agriculture and Environmental Protection Mrs. Stana Božović pointed out then, that the value of projects which were supported by the programme was 11 million dollars; out of which 2.2 million would be provided from Global Fund GEF in the following five years, 5 million dollars from the future Fund for the environmental protection of Serbia and the rest from donors. In the interview with permanent coordinator of the UN Office in Serbia, Mrs. Irena Vojáčková-Sollorano, for Energetski portal we found out how to evaluate the activity of Serbia in solving the biggest challenges of mankind.

EP: The ultimate objective of UNFCCC (United Nations Framework Convention on Climate Change) is to stabilize CO2 emission into the atmosphere. Climate change is associated with the biggest polluter and that is the industry. In your opinion, how does the problem of climate change reflect or will it be reflected on the global industry and economy?

Irena Vojáčková-Sollorano: The energy sector, industry and economy in general are the key emitters with the effect of greenhouse gases (GHG) and certainly have a huge potential for reducing of those emissions and thereby mitigating the consequences of climate change. Reaching the national and international goals to reduce GHG emissions will primarily be achieved through investments into renewable energy sources, energy efficiency as well as adequate waste management, including the recycling industry. The switch to energy-efficient and new technologies in the industrial sector with the improvement of efficiency of industrial processes are some of the key measures which are defined in the reports by developing



Irena Vojáčková Solorano, UN

countries and those reports are submitted to the UN Framework Convention on Climate Change. Another important part of the transition to sustainable growth represents an investment in transport sector, both in terms of energy efficient vehicles and in development of transport infrastructure. Given the fact that urban areas are the carriers of economic growth around the world, the current global trend represents the sustainable development planning of urban areas in order to strengthen their resistance to climate change. Therefore, climate change is perhaps the biggest challenge with which mankind faces, but it also represents a milestone in the development of humanity and the opportunity to make economic growth and development more sustainable.

EP: The conference COP 21 held in Paris last year was evaluated as one of the most successful and as the largest diplomatic event where the settlement was reached. The Agreement will become valid when signed by 55 countries that emit 55 per cent of total greenhouse gas emissions. Is the implementation of this Agreement really possible?

Irena Vojáčková-Sollorano: This Agreement is the result of years of effort of the international community for the adoption of universal multilateral agreement on climate change. After the Kyoto Protocol, which wasn't adopted by sufficient number of countries, as well as the failure to adopt the Agreement in Copenhagen in 2009, the United Nations and other global and regional partners such as EU have established the broad coalition of developed and developing countries in order to create such an ambitious framework for action. The Agreement



from Paris sends a clear signal to investors, companies and policy makers about the fact that the transition to sustainable production and consumption is inevitable. What is maybe most important is the fact that developed countries committed to provide help in the fight against climate change more than they did so far. The fact that the Agreement was signed by the USA and China confirms the global commitment to the process. In order to support the implementation of the Paris Agreement, the Green Climate Fund was established as the new global mechanism for financing the measures for combating climate change. This is the biggest funding mechanism of this kind so far, with the ambitious goals of mobilisation of funds in the amount of 100 billion dollars a year by 2020 and it gives us hope for the success in implementation of agreed commitments.

EP: Serbia is among the first countries to give its national commitment plan in which it states that it will reduce CO2 emission into the atmosphere for 9.8 per cent compared to reference year of 1990. How do you assess the activities of Serbia in the fight against climate change?

Irena Vojáčková-Sollorano: Serbia is strongly committed to fulfilling of its obligations in the field of fight against climate change, both in international plan and within the process of its accession to the EU. Full implementation of regulations in these areas is adxz significant expense to the economy and the budget, but it is certainly necessary and profitable long-term investment which ensures the competitiveness and placing the products to the market. Compliance with the regulations and strengthening of the necessary administrative capacities still remains a main challenge.

Administrative capacities in the field of climate change must be strengthened at both central and local levels in order to ensure effective implementation of regulations.

Serbia fulfills its obligations in the areas of reporting to the UN Framework Convention on Climate Change, and currently in the process of developing of the National Strategy to combat climate change, which will hopefully respond to challenges and opportunities for low-carbon development, and in accordance with ambitious strategic goals of the European Union. The legal framework, which will establish the implementation of the EU emissions trading system (EU ETS), is also in the final stage of development. The implementation of this legal framework will have a significant impact on economic development and energetics in the future.

The UN team in Serbia appreciates the efforts made by the Government of the Republic of Serbia in order to meet international obligations in the field of climate change. The new five-year partnership between the Serbian Government and the UN envisages a number of specific program activities that will support the Government in improving its capacity to respond to climate change and manage the natural resource in accordance with international agreements. Several UN agencies such as the Fund for United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), the UN Food and Agriculture Organisation (FAO), UNESCO and others are currently dealing with this issue in the framework of their mandates.

EP: According to your data, what are the biggest threats for the humanity stemming from climate change? We know that CO2 from anthropogenic sources remains for a very long time in the atmosphere, even up to



1000 years and that there are no natural processes which would contribute to its reduction or elimination. Please, give us some more information on changes in the flora and fauna and weather disasters. Are they more frequent, what is their quality and what would be the estimates for the future period?

Irena Vojáčková-Sollorano: Climate change is a global problem which represents a threat to economic growth and development and to the survival of mankind as well. The scientific data and facts of the International Panel on Climate Change, but also of some other professional departments and academic communities at the national level, indicate the seriousness of climate change. On the other hand, we are witnessing increasingly frequent and intense weather disasters which cause the damage to agriculture, infrastructure, and unfortunately cause human victims. The harmful effects of climate change on agriculture, forestry, water management, health and biodiversity are described in detail within the national report submitted by countries to the UN Framework Convention on Climate Change. The increase in mean annual temperature will have different impacts across the globe, from sea level rise, to frequent droughts, heavy rainfalls, storms and similar things. According to the climate scenarios, the area to which Serbia belongs is characterised by a long-term increase in average annual temperatures, as well as long-term reduction in rainfall with the increase of extreme weather conditions such as heat waves, droughts and episodes of heavy rainfalls. Extreme weather conditions, especially droughts, that is the increased number of dry days with extreme temperatures, will dominate the future climate conditions. As for the damage caused by climate change, Serbia has been facing with the periods of extreme weather conditions and extreme weather events since 2000 and they have caused significant material and financial losses. Even without further changes of climate conditions it is clear how urgent is the need for adjustment. Two, probably the most important extreme climate events were the drought in 2012 and the floods in 2014. The total damage from flooding in 2014 was estimated at more than a billion and half euros, with the estimated damage in the agricultural sector of around 120 million euros. On the other hand, the droughts that occurred in the past few years have probably caused the greatest losses. The drought in 2012 was particularly serious and had the effect of reducing the yields of some crops by around 50 per cent, which led to a total agricultural loss of around 2 billion dollars. Changed climate conditions will lead to significant changes in the composition of flora and fauna of the planet. Species can adapt to changed environmental conditions, but it takes time which in this case we do not have at our disposal. Thereby, to many species which are sensitive even to small changes of climate and site conditions in which they live, are threatened by extinction. When we talk about the relationship between climate change and environmental protection in Serbia, we should point out the fact that among the most vulnerable are ecosystems of wetlands and prairies in addition to forest ecosystems. Forests can change its composition, structure and distribution. These consequences will arise primarily due to future shift of climate zones



which will be faster than the possibilities of migrations of some species and forest types. The vulnerability of mountain habits to climate change is also emphasised. Taking into account that two thirds of the Republic of Serbia are mountainous areas and there are species whose populations are restricted to mountain peaks and as such they do not have natural corridors for mitigation. These species will be among those which will be most affected by climate change. Most of these species are endemic and if they disappear it will lead to the reduction of biodiversity, including the reduction of genetic diversity.

EP: What is your opinion on the conference COP 22 which was held in Morocco. What were the main objectives, themes and activities this time?

Irena Vojáčková-Sollorano: The conference in Morocco is the natural extension of 21 session held in Paris in 2015. The meeting was primarily devoted to further enforcement of the Paris Agreement, harmonisation of the supporting documents that will facilitate the implementation of reached agreements, as well as monitoring of the processes. Special attention was paid to adaptation measures on climate change conditions and the countries would be further encouraged to audit the intended national contribution to reducing GHG emissions, with the goal of achieving major reduction ambitions. As always, the series of accompanying events where countries and other interested parties discussed on various practical issues related to the implementation of climate policy, were organised during the session. Among other things, Serbia also performed with the accompanying event during which measures for encouraging local development resistant to climate change were promoted.

Interview by: Vesna Vukajlović



SUPPORT FOR SERBIA

through IPA project

In mid-September last year the representatives of the GFA Consulting Group took participation at the conference in the Serbian Chamber of Commerce where the beginning of work on the Strategy on Climate Change with the Action plan was presented. GFA group will provide assistance and it will have a monitoring role in this process. In our region, this German consulting firm has cooperated with a number of Ministries and local self-governments and enabled financial resources as well as the implementation of projects in Bosnia and Hercegovina, Croatia and Macedonia. Currently, they are implementing international projects in Africa, Asia, Europe, Middle East and America. We have met two experts from this group in Belgrade and our interlocutor is one of them Mr. Mark van Wees. He is the team leader and the key expert within the project of Strategy on Climate Change and Action plan. He has 20 years of experience in the field of energy efficiency, renewable energy sources and climate change, and he has a Master degree in Physics. He was included in the development of numerous studies and analyses. So far, he has cooperated with relevant institutions such as the EBRD, the World Bank and the European Commission.

EP: GFA Consulting Group is renowned for its efficient solutions in the global market consulting. This company, whose headquarters are in Hamburg, has implemented complex studies and projects in over 130 countries by 1982. What will your team do with the Ministry of Agriculture and Environmental Protection of Serbia and what will be your concrete task? What are the

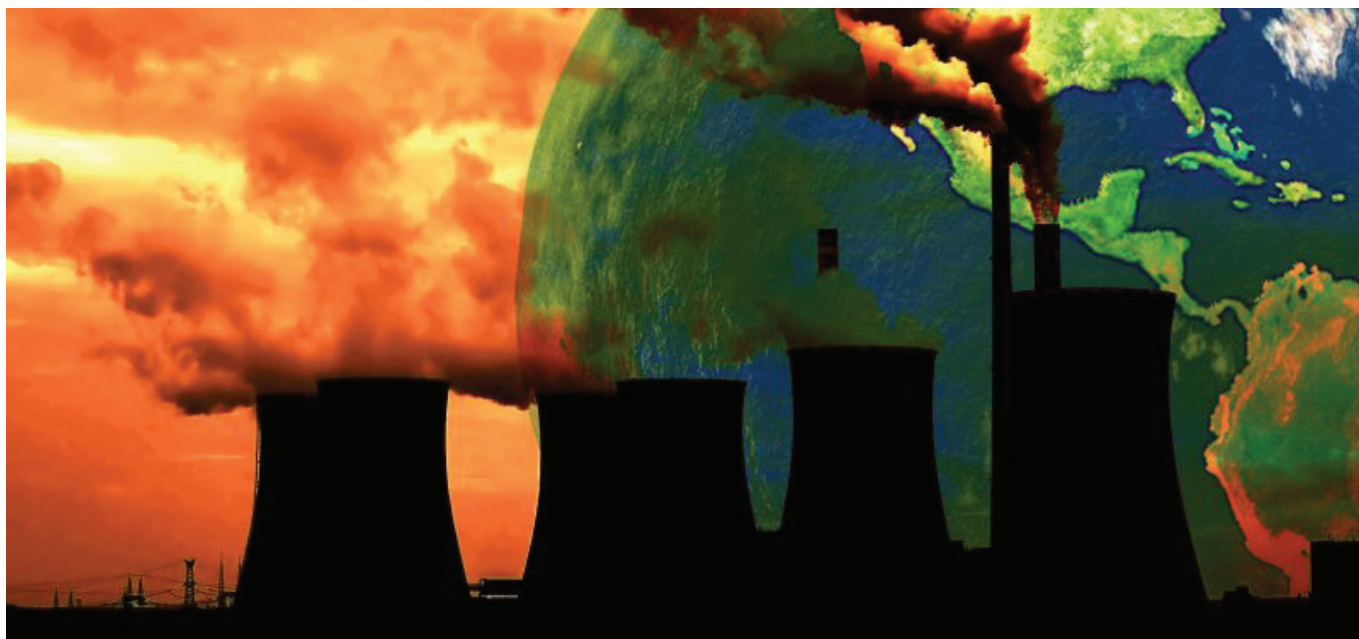


Mark Van Wees, GFA Group

deadlines when we talk about the Strategy on Climate Change together with the Action Plan?

Mark van Wees: Ministry of Agriculture and Environmental Protection will develop with the support of IPA project the National Strategy on Climate Change which will be connected with all the sectors. It will create the Action Plan and legal framework for the future activities. In the period of the preparation of the Strategy, many other activities should also start. The Action plan will have to comply with the future obligations of the Republic of Serbia, as a potential EU member. It will have to comply





with EU2030 Climate and Energy Framework as well as with the Strategy of Energy Community.

The project Strategy on Climate Change with the Action Plan received the support of the EU in the framework of IPA 2014. It will provide information on the impact, costs and welfare of the alternative solutions that we propose in order to reduce emissions of greenhouse gases. We will offer regulation, measurement techniques and climate goals. The main objective is to evaluate the existing policies in Serbia, including the assessment of the readiness of the institutions and legal frameworks. Then, we will propose recommendations for improvement. Another key task is to assess the impact of the economic and social segment of life. It is also important to evaluate the influence of new scenarios on the environment that predict a decrease of CO₂. This includes scenarios that refer to the approach of Serbia to the European Union and scenarios based on the intentions and information of the interest parties.

This project will last until the end of 2017 and we will work in a very close cooperation with all relevant Ministries. During the project, the team will regularly consult the stakeholders in social and economic circles and identify the desired regulations and measures for Serbia.

EP: *The issue of climate change is very important in international institutions and circles dealing with energy, harmonization of energy policy and environmental protection. We can also add that China and the United States have recently ratified the Paris agreement during the meeting of G20. However, it is necessary that 50 countries which account for more than 55 percent in air pollution ratify the agreement. How do you assess Serbian INDC (Intended national contribution)?*

Mark van Wees: Paris agreement crossed the threshold for entering into force after October 5th, 2016, when the agreement was ratified by China, the US and EU. Now the plan is that it comes into force on November 4th, 2016. This is a very important

step. Serbia has declared its Intended national contribution with the plan to reduce emissions of greenhouse gases by 9.8 percent by 2030 compared to 1990. Your country now must put into operation a serious climate and energy policy that will allow you not only to realize the current policy, but also to strengthen and help the fight towards the goal in the years to follow. This effort is in line with all the signatories to the agreement. All these countries have also identified their contribution to climate change and the impact they have on the overall life.

EP: *GFA group has cooperated with the countries in the Balkan region. What would be your advice to our administration at this point?*

Mark van Wees: GFA group is very active in the whole region, not just when it comes to climate change, but also in other energy projects. The energy sector is the key sector in the process of reducing the level of CO₂ in Serbia. Here I want to point out the experience of GFA when it comes to financial analysis, such as investments in energy efficiency. We had a number of successful projects in the region on this subject. Financing of low-carbonic development in Serbia will be the key issue for our project.

EP: *What do you expect from the conference COP22 in Morocco?*

Mark van Wees: This conference is very important because many of the items agreed upon in the Paris Agreement must be further developed and agreed upon in more details. By this I mean, for example, an agreement on the CO₂ market and the necessary instruments for the functioning of that market. I expect that COP22 will put the Paris Agreement into operation. I would like to invite your readers to follow all the information, results and opportunities for interested parties on the project that we started in Serbia on the web page www.serbiacclimatestrategy.eu

Interview by: Vesna Vukajlović



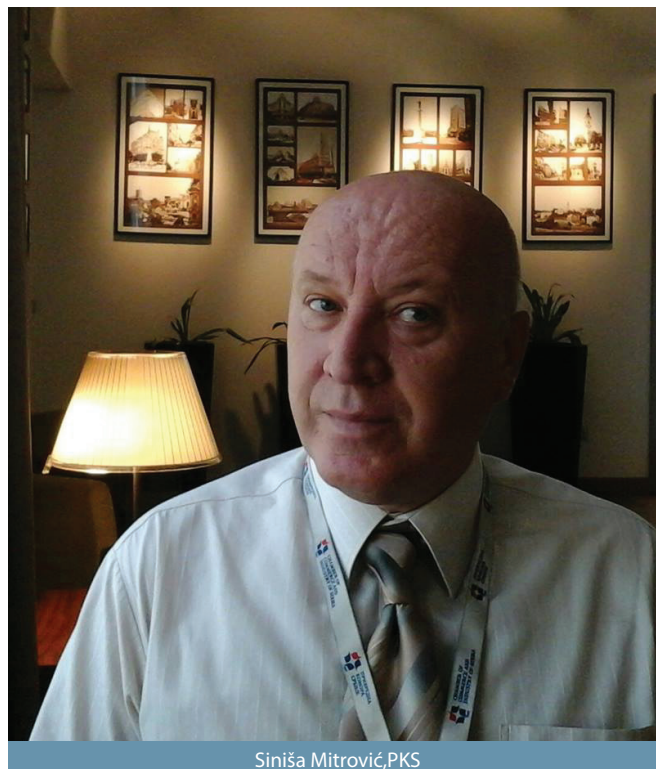
SERBIA APPROACHES CLIMATE Change Strategy and Action Plan

The European Union will finance the project Climate Change Strategy and Action Plan from IPA pre-accession funds. The investment is one million euros and the project will last 18 months, as it was announced in mid-September in the Serbian Chamber of Commerce.

At the Conference "The fight against climate change, the willingness of Serbia", it was stated that the total EU aid to Serbia intended for environment from 2000 to 2016 was approximately 700 million euros. Planned future assistance to the region is estimated at about 42.5 million. As noted, 39 percent of planned EU assistance funds are aimed at recovery and prevention from floods, 38 percent for water protection and supply, 12 percent for air protection, 8 percent for water management and about 3 percent for the legislative reform and the construction of capacities.

Then also Mr. Aleksandar Antić, Minister of Mining and Energy, said that Serbia is determined to make major contribution to the fight against climate change and will aggressively implement the objectives in this fight. Precisely on the occasion of allocated funds for the development of the Climate Change strategy, we talked to Mr. Siniša Mitrović, independent Advisor at the Centre for Environmental Protection in the Serbian Chamber of Commerce.

Siniša Mitrović: Chamber of Commerce and Industry of Serbia is a strategic partner of the Ministry of Agriculture and Environmental Protection of the Republic of Serbia when it comes to the area of climate change. What is visible in 2016 is that we have a radical turning point from all years behind us. This means that we got serious and we approach to dealing with climate change in the Republic of Serbia in a very responsible way. After the Paris Agreement, it is no longer a matter of voluntary engagement, but



Siniša Mitrović,PKS

there are serious obligations for all state institutions. To illustrate the seriousness of the situation, I can say that we have lost since 2000 over 5 billion euros of direct damage from climate change. Out of this 1.5 billion was lost only in 2014. Now we all must look to the future responsibly. The main question is how to fight against climate change, against the emissions of greenhouse gases and develop the energy sector at the same time?





EP: During the Conference “The fight against climate change, the willingness of Serbia”, the strategy development plan was presented, the representatives of the GFA Consulting Group spoke, the French Ambassador in Serbia Mrs. Moro praised the agility of Serbia in the part of activities related to climate change. Representatives of our respective Ministries emphasized uncompromising commitment to these issues. It was announced that Serbia will ratify the Paris Agreement until mid-2017, but it was also pointed out that Chapter 27 on the environment is the most expensive one and the most difficult to negotiate. What can you tell us in the name of the Serbian Chamber of Commerce?

Siniša Mitrović: The fact is that Serbia needs to start developing a strategy against climate change with a precise agenda of responsibilities and duties. On the other hand, the law has already been prepared and is waiting for adoption – Greenhouse Gas Emission Trading Act. We have got a whole package of regulations ahead of us – first we have the ratification of the Agreement, then the development of the Strategy and finally the adoption of the Act. A great deal of national coordination is in front of us. If we open Chapter 27 in the process of joining the European Union in the part of environmental protection, then it means that you need to be a wise and far-sighted negotiator. You must perceive how the energy sector, as the largest emitter of greenhouse gases, can be repaired and how you will be able to invest. Our power plants are over 40 years old. How to find a balance between obligations, plans and possibilities?

Our estimates are that it is necessary to invest 1.2 billion euros only for the repair of power plants. At the same time this means that you must negotiate good transitional deadlines for the energy sector due to the fact that the energy sector is the emitter of about 70 percent of greenhouse gases. The industry participates with 5 percent, agriculture with 10 percent and waste with 5 percent. All this testifies that synergy between the chambers, ministries and the business sector is necessary. That is why we

need a strategy! It will give responsibilities, duties, the method of coordination and the method of monitoring operations. We did not pay enough attention earlier to such commitments, considering that it can all be a conspiracy theory, until 2014, when we experienced a strong attack and realized how big the damage from climate change can be. We all together must understand, when we look at our territory, that Serbia is a country of medium-high risk when it comes to climate change..

EP: There are views, in both the world and in Serbia, that the whole issue with regards to climate change is nothing but the fight between the most powerful states about who will dominate the energy sector, since the reduction of CO2 directly commits the industry to restrictions. However, it has been proven that climate belts are changing, new species of insects are appearing, traditional cereals are disappearing and the like. What is your opinion?

Siniša Mitrović: I would say that at this point climate change is regulatory factor for all strategic policies relating to the Republic of Serbia. Therefore, Climate Change Strategy needs to be an umbrella strategy that will be binding for the traffic sector, transport and agriculture. Estimates are that only since 2000 direct damage to forest ecosystem is more than 300 million euros. Then, the estimates are that we will have a drought in the future, especially beech forests that dominate our ecosystem. If we do not increase the level of irrigation, the yield of corn will be reduced by 30 percent in the next few years. Such large-scale warming trends and major floods cause the occurrence of rare insects. Heatstroke in Belgrade in 2007 took numerous lives. Now, for example, we have a West Nile virus. All these are consequences because of which you need to invest in the health care system and agriculture. We lag behind Europe technologically 30 years, but that does not mean that we cannot enter the fourth technological revolution, because we need new technology. We need sustainable energy production, sustainable consumption. We, as a society have a high consumption of water and energy. There is a fact that we spend 2.5 times more water



per capita than necessary. Then, there is a great loss of energy in the network, there is a serious crime when it comes to the theft of electricity. During a year the amount of electricity that one Kostolac produces disappears! These are all factors which show that we must make such a state model that will provide funds to ensure a turnaround. If you do not negotiate well on your membership in the European Union, you will either pay penalties on the first day or you will close systems. Such was the case in Greece and Macedonia. Now we finally need to have an assessment of environment impact. Estimates show that only the cost of treatment due to the polluted environment amount to 1.5 billion euros annually.

This kind of pollution comes not only from industry but also from cars, that are about 15 years old in our country, but also from heating. We are witnessing that cities such as Uzice, Valjevo and all those in the valleys are risky for living due to high CO₂ emissions and polluting particles. To conclude – the funds are there, the negotiations start next year. The Strategy is the one that should create obligations, time agenda, the role of investments, responsibility.

What is essential is that we cannot our position better than it really is. Reality is what is important in Serbia, the world is oriented at this moment towards the year 1990. It is also very important for us to look ourselves in the mirror. Key factors are the numbers and system measurement. It is said that you cannot manage something that you cannot measure. Our findings in the Chamber show that we are inattentive when it comes to quantification, and measuring of CO₂ and other gases. This also applies to the energy consumption in the industry. Now is the time for all institutions to deliver their results and

reports realistically, in order to make a realistic strategy. If you have an incorrect entry, final result will also be wrong. Therefore, it is vital that both this strategy and the Chamber, as the national Business house, integrate public enterprises, civil sector and associations of citizens in order to make a dynamic strategy that would help decision makers. If we say that we need 1.2 billion euros for modernization of EPS, we must know where the funds come from. Will there be an increase in the price of electricity, or there will be some investment funds or Green Fund that the Republic of Serbia should form or it will be the Energy Efficiency Fund? The Strategy needs to be completely innovative, binding for all ministers, institutions and it needs to clarify all this. We can no longer rely on the force of nature, we can no longer pray; 2014 must not repeat. Even today I cannot understand how we recovered, since the damage was 5 percent of GDP. Believe me, even stronger economy would not recover.

EP: In many European countries ruling parties have as the main political orientation the issue in the field of environmental protection, because this is the issue that concerns all citizens. Will these issues soon become dominant in Serbia?

Siniša Mitrović: We forget that Europe is a moving target, we forget that new directives on large combustion plants and mining waste will be very demanding as well as the application of directives on waste waters. The estimates that we have in the Chamber show that only wastewater treatment requires 9 billion euros of new investments. This means that you have a good, balanced negotiation process and set sustainable limits. It is negotiated also on the deadline till 2035 when it comes to the farm and livestock sector. We have to build facilities first, but we also have to manage them. There are high operational costs for such undertakings. I, however, believe in these very processes. But we must be pragmatic, we cannot promise that we will do it in several years' time. We should understand that the process in the environment is demanding and it requires daily commitment. What is a disadvantage in this process is that we still do not have the Ministry of Environment. It could coordinate these processes in an automated way and it could be the engine for all other ministries. Now we rely heavily on the role of Agency for Environmental Protection, which is, with its new capacity, highly ranked in European environmental agencies. What is clear is that the key process of moving towards the EU is – monitoring. Monitoring means that you know, at any moment, the diagnosis in the environment, industry, transport, energy, waste and district heating plants. Only with such a monitoring we can come up with good data. I must say that Serbia needs to introduce new tools because sometimes the state itself makes mistakes. We usually say after the floods – you will receive help. On the contrary, we should tell them to secure the property, household and this could be a tool for security for the future. I think that the climate change is an ideal opportunity for raising and restoring many sectors in Serbia. All this is a big chance for us.

Interview by: Vesna Vukajlović



WE HAVE INVESTED ABOUT 150 Million Euros in Serbia so far

According to all indicators, 2015 was a record year for the EIB investments in climate projects with a total amount exceeding 20 billion euros. In all documents or interactive portals of the European Union institutions, the phrase that climate change is the greatest challenge for humanity is inevitable. Everybody recognizes the concern, the consequences are far-reaching and timeless, the responsibility of the current generation of politicians and decision-makers is exceptional. One can also come across the term that 2015 was the millennium year because a global campaign was launched that must yield results. There is no alternative.

This time we talked to Ms. Dubravka Negre, who has recently become the Head of the EIB Regional Representation for the Western Balkans. This is an institution that participates in the most direct way possible in the fight against climate change and also funds specific projects. The EIB is an investment institution established in 1958 and founded by members of the European Union. As such it closely works with all the institutions of the European Union – the European Parliament, the European Commission and the European Council. The headquarters is located in Luxembourg, the bank has about 2,900 employees and apart from the projects within the EU, it cooperates with nearly 150 countries that are not members of the EU. Those countries receive around 10 percent of the total EIB fund.

EP: An interesting conference was held in Morocco on 8 September, 2016, just two months before the conference COP 22. The EIB was the organizer and if our readers want to know more, they can go to: <http://www.eib.org/infocentre/events/all/med-conference-2016.htm>. Can you tell us something about the participants, the results and the objectives of the conference?

Dubravka Negre: The Conference in Rabat was dedicated to climate issues in the Mediterranean region and was organized in partnership with the Government of Morocco and the Union for the Mediterranean (UfM). Climate action promotes economic growth, prosperity as well as job creation. Therefore, as the largest international funder of climate activities the EIB mobilized there resources, skills and experts to give financial support for concrete projects in Morocco, but also in many other countries. The Conference provided an opportunity to investigate serious consequences of climate change in the



Dubravka Negre, EIB

Mediterranean region – particularly erosion and drought that have serious impact on production in agriculture, food safety that has to be provided in concentrated urban areas on the coast. Apart from that, we were also able to learn more about adapting to climate change, the mitigation, particularly in the area of financial requirements during the Conference and also to discuss specific methods for financing projects in the field of climate change in the Mediterranean region.

EP: After the Conference COP 21 and the Paris Agreement all the parties in the public sector were involved in projects in order to ensure the reduction of the level of CO2 coming from industrial and public sectors. What is the strategy of the EIB? In what way do you support these efforts and what products does the EIB have dealing with this subject? How does the EIB cooperate with commercial banks and institutions?



Dubravka Negre: The EIB supports the transition to an economy that is friendly to the environment, has a low level of CO₂ and takes account of the climate. As the bank of the European Union we understand the need to promote the objectives in the field of environmental protection in developed countries, but also in those that are still developing, with the aim to support sustainable development across the globe. As one of the largest investors in the world when it comes to climate change, we define at least 25 percent of the portfolio on the low carbonic and climatically favourable activities. Our investments support sustainable projects in more than 160 countries, supporting also private financing for climate activities. In that way we encourage others to be involved in our long-term investments. In 2015 we had the biggest investments ever when it comes to investing in climate change. It is about 27 percent of total lending, or to be more precise 20,7 billion euros.

We take into account the climatic conditions when assessing new projects and during the monitoring of existing investments. We call this integration!

IN THE PERIOD OF PREPARATION, WE OBSERVE THE FOLLOWING:

- When we evaluate the economic aspects for the project which leads to significant changes in the emission of greenhouse gases (GHG), we incorporate the economic costs of carbon dioxide emissions.
- The estimation of greenhouse gas emission in the projects that



we invest in, is made on the basis of specific methodologies for the sector.

- For all fossil fuel generation projects we apply a special Emission Performance Standard in order to do the screening of investments whose carbon dioxide emissions exceed the threshold.

- For projects, sectors and regions particularly vulnerable to the climate change impacts, we require the following – that the promoter considers climate risks and includes adaptation measures in the project design and operation. The potential of the project to generate carbon credits is estimated. Technical assistance can be given to promoters and thus help them take advantage of this potential.

The EIB gladly accepted a global agreement on climate change that took place in Paris. The bank, that already provides the biggest financial support for climate projects, will now play a key role in mobilizing additional resources, mainly in private sector. In the next 5 years the EIB expects to lend about 100 billion euros for the projects dedicated to climate change worldwide. We cooperate with the others as well in order to help further investments in climate projects and projects on environmental protection. Our traditional products for financing are medium-



term and long-term projects with fixed or variable interest rate in euros or other currencies. We finance large projects with direct loans for projects, but we also support smaller projects indirectly. We finance them through credit lines from local banks or in combination with other agents. We complement our traditional lending with other products such as investment funds.

EP: *Renewable energy sources are a part of the strategy against climate change. Can you tell us what type of activities you have on the market? Who can apply for your loans and who can attend your conferences?*

Dubravka Negre: The promotion of sustainable, competitive and secure sources of energy is the key of the policy of the European Union and for the EIB is an important sector for funding. The EIB applies strict criteria for energy credits established on the basis of a comprehensive review. Thus, we ensure that our lending in the energy sector mimics EU policies when it comes to energy and climate policies. We focus on energy efficiency, renewable energy sources, energy networks, as well as research and innovation. Likewise, we support the development and expansion of the projects in the field of renewable energy sources in order to make energy suppliers more sustainable, competitive and secure. By investing in renewable energy sources we support the EU policy on climate change. We will help in achieving the goal according to which 20 percent of the energy used should be from renewable energy sources by 2020. Not only that we finance secure renewable technologies, such as wind farms, hydroelectric power plants, projects in the field of geothermal energy and biomass, but we also strongly encourage the development of such projects. We demand that the best possible technology available is used in the projects we fund. Loans are the main product for the projects in the energy

field. We also offer structured finance options. Our clients are states, local governments, private investors, small and medium enterprises, commercial banks and corporations. We fund large projects alone and for the small ones we form a partnership with market intermediaries.

EP: *Tell us more about Serbia and the region in terms of climate change and projects? How much have you invested in the area so far? What are your plans for the next year and for the following few years?*

Dubravka Negre: So far in Serbia, the EIB has invested about 80 million euros through GGF (Green for Growth Fund), whose goal is to support small projects in the field of RES such as hydropower plants and wind farms of less than 30 MW. We support projects related to solar energy, biogas, biomass, geothermal energy and all this through financial intermediaries. In addition to GGF, in the energy sector in Serbia, we have invested a total of about 150 million euros in the last few years. In the Western Balkans, we have supported in the past few years the rehabilitation of several hydroelectric power plants in Bosnia, with the loan of 90 million euros. Now we also participate in the construction of a new hydro power plant of 20 MW. We also provide technical assistance through the Western Balkan Investment Framework for the preparation of irrigation projects in the former Yugoslav Republic of Macedonia, but also for two wind farms in Bosnia and Herzegovina. We are interested to continue to be involved in projects on climate change in Serbia, including the RES. In addition to projects in the field of energy efficiency and renewable energy sources, as well as the fight against elevated levels of carbon dioxide, the EIB aims to contribute to the reconstruction of existing transmission and distribution networks.

Interview by: Vesna Vukajlović





CLIMATHON in Belgrade

We had a chance to meet Mrs. Isabel Aires, adviser for circular economy at the Serbian Chamber of Commerce and Mr. Filip Mrdak who participated in the organization of Belgrade's Climathon. It is a global event which was held on 28th October, 2016. The Climate – KIC is the largest public-private partnership in the European Union and it tackles the problems of climate change through innovations. Climate change is treated through four priority themes: urban areas, land use, production systems, decision making metrics and finances. The Climate – KIC is supported by the European Institute for Innovation and Technology (EIT) which is the body of the European Union. In order to find out why this is an important project, we have talked about the details of this action and the experience of other European countries. The leading motive in this case is knowledge and not informing the public or education of certain target groups. Mrs. Aires says that they are looking for new ideas which could become real projects.

EP: Can you tell us something more about the first Climathon in Belgrade?

Isabel Aires: At the outset, I would say that the European Institute for Innovation and Technology, which has several departments and operates in various fields, is very important. KIC is the abbreviation for departments Knowledge – Innovation – Community, and they deal with climate change. That is also the name of the project – the Climate – KIC. We, now implement here in Serbia the things that the Climate – KIC does throughout Europe. One of the actions is also Climathon. It's a kind of Marathon where people collaborate intensively over a period of 24 hours in order to solve some problems or to create new ideas. They literally sit together during one whole day and they concentrate on a topic until they reach a particular solution. The idea is to gather young people, students, designers and pupils. Then, each city has its own challenge on which it has to respond. This time Climathon was held in 36 countries. The topic defined for Belgrade was "How to reduce the carbon dioxide footprint?". The event was held in "impact Hub" in Makedonska Street. It seemed to us that it was a suitable environment in which innovations and start-ups are welcome. The space is huge and suitable for this kind of all-day work. Moderators attended the event, the presentations were organized as well as the participation of experts from the aforementioned fields. Twenty students took participation at the event and we formed 4 team. They prepared during the day, then in the evening we gathered to see what do we have at our disposal and how to articulate those ideas. We analysed whether the real projects can arise from that, something that can be applied in practice.

EP: Climathon is the activity which lasts for 24 hours,



Filip Mrdak i Isabel Aires

but what happens to those ideas after the project, and what are the real results of Climathon?

Isabel Aires: At the end of Climathon the four groups presented their solutions in front of the jury. The jury estimated whether the idea could be used, whether it was useful and if it was possible to implement it. The winner was elected and this time it was the NGO "Eco gnezdo". They had already had an elaborated idea which was based on the improvement of the living conditions in the dorms. They noticed that there is a lot of waste and raw materials which can be recycled. They want to collect cans and other waste in order to process it, and in addition they want to build solar panels on the dorm's roof. The big problem in the dorm is hot water and in this way they would solve it. The following step is to develop a plan on how to recycle waste and how to use solar panels.



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EP: Can we expect the implementation of the winning project of NGO “Eco gnezdo”?

Isabel Airas: We do not have a defined budget now for the second part (implementation), but we are working so as to make this idea and similar ones happen. The prize for the winner is help to do the following step, to develop a business plan and to find the funding sources. At the moment we cannot finance that part, but we have developed a network and we made connections with several institutions. There is also a program “Accelerator” which is assigned for the new companies and start-ups. “Eco gnezdo” is the winner because its project is realistic. Other participants remained at the level of ideas, which are also good, of course.

EP: In what way did you find the participants of this project? How did they apply and how did they find out about the opportunity to participate? Did you invite them or you waited for them to show their own initiative?

Isabel Airas: You really must be very active in communication, send information via the Internet, you have to be very agile on social networks and try to inform the participants in every possible way. You have to talk to people. These are the reasons why the Serbian Chamber of Commerce is good because we have a strong network with universities and NGOs. 53 participants were registered before the beginning of the event, but in the end 20 people showed up and they contributed to the maintenance of the marathon.

EP: Will you animate the other cities in Serbia next year?

Isabel Airas: Yes, of course. In some countries even 10 cities take participation. If we stay under the auspice of the Serbian Chamber of Commerce we will definitely try to include other local communities. For that step it is crucial to have participants and that the response is good. We cannot work with 5 people, because than it is not a successful event.

EP: What is the goal of this kind of project? Are there any international agreements? COP 22 was recently held, institutions and countries are connected at the highest level, but you turn to the individuals, young people. Is raising of public awareness on climate change the main goal of these kinds of projects?

Isabel Airas: You are totally right when you say that there are strategies, also some intergovernmental agreements, but we want to support innovations. We want to reach an individual, people who are innovators, scientists and to encourage them to think about the solutions. And if that solution is a precursor to a business, then we move towards its implementation.

EP: What are the results from the previous year? Were any of the projects implemented, were there any concrete results?

Isabel Airas: 10 cities took participation last year. Three best projects were presented at the conference COP 21 in Paris. I have one good example from Sweden and Denmark. Two participants, who hadn't met before Climathon developed the solution on transportation. Now they have their own company which deals with cycling. Conceptual design is extremely important as well as the diversity of the ideas at the marathon. There are 5 start-ups at the moment in programme “Accelerator” according to Ms Aires: “Green Hub”, “CWool Box”, “Toy Box”, “SRIMTech” and “Climate Innovation Hub”. Mostly the activity of all these companies is in the field of environmental protection, education and conservation of the nature. Those young people try to incorporate circular economy, recycling, renewable energy sources into their future business. This year we will be able to follow the activities of the European Institute for Innovation and Technology and we will certainly inquire after some time about the faith of aforementioned innovative companies.

Interview by: Vesna Vukajlović



MANKIND LIVES

Beyond the Capacity of Nature

One of the most prominent actions in Serbia's public life that deals with nature is 'Earth Hour'. It is an action that is being implemented throughout the world and the creators of this enterprise are the representatives of WWF organisation. To turn off the light for an hour is a symbolic message that by savings and energy efficiency we think about the future of the planet. WWF is an abbreviation of the World Wide Fund for Nature. At the beginning of its operation in 1961 this abbreviation represented the following – the World Wildlife Fund of the World Wide Fund for Wildlife. In the spotlight were rare animal species, ecosystems and eco habitats. This is certainly the biggest and the most prestigious organisation engaged in nature conservation. It operates in over 90 countries and has around 5 million supporters. Mrs. Duška Dimović is the executive manager of WWF programme in Serbia. We talked with her about climate change and the activities that are carried out, bearing in mind that she often travels, attends working meetings and that she is au courant with all global activities of the WWF.

EP: WWF is an international organisation and the operation of your branches around the world is focused on the protection of nature, animals and plants. What is your global strategy when it comes to climate change? Are there any specific campaigns, programmes and goals to which you aspire?

Duška Dimović: Climate change affects everyone, plants, animals and people. Consequences are felt across the planet, ecosystems are threatened, as well as the welfare and safety of people. Climate change reminds us that despite the rapid technological development we are fully dependent on nature that is natural resources and natural cycles. For this reason, WWF as a global organisation whose primary concern is the protection of nature, sees climate change as the biggest challenge for our planet and a large part of our activities we direct in that direction. The main drivers of climate change are certainly CO2 emissions from fossil fuels, which our civilisation still relies on. Mitigation is necessary, that is measures of climate change by reducing the emissions of greenhouse gases in order to reduce the effects of climate change. WWF intensively promotes the need for reduction of emissions and abandoning the conservative development strategies that are mainly based on fossil fuels. On the other hand for us it is very important to work on adaptation to climate change, that is raising our ability to adapt to changed conditions. Preserved nature and healthy ecosystems are very important for that. In essence we are focused on working with the local population



Duška Dimović, WWF

which is directly exposed to the consequences of climate change, preservation and enhancement of ecosystems and their adaptability to rapid climate change, acceleration of transition to renewable energy sources and of course the reduction of emissions. One of the most popular campaigns is 'Earth Hour' when we invite people to turn off the lights in their homes for an hour. This symbolic action reminds us that every hour is an hour for our planet and that energy efficiency is necessary. With the help of this campaign which involves millions of people and thousands of cities around the world, we turn attention to the consequences of climate change and to the necessity for a responsible attitude towards our planet.

EP: The definition of climate change states that they are directly or indirectly attributed to human activities. How do you comment that, does the functioning of mankind self-destructive to that point or the practices can be changed in industry, mining, power plants and alike?

Duška Dimović: Human activities are definitely the main cause of climate change. The problem is that most people still believe that natural resources are inexhaustible and that nothing



special will happen if we continue with the current behaviour that relies on fossil fuels and intensive use of natural resources. Ecosystems still have capacities to mitigate our negative actions, but it is obvious that this capacity is decreasing and that we feel drastic economic and social consequences.

'Living Planet Report', published by WWF, shows the change in the status of biodiversity, ecosystem and human consumption of natural resources. By following the status of species in nature, the index of living planet follows the status of ecosystems, and this index fell by 30 percent from 1970. This global trend suggests that we are degrading natural ecosystems at a level which has not been recorded in human history, we are using more resources than we have, ecological footprint is increasing and we are creating ecological deficit. This means that we consume and destroy ecosystems faster than they need to renew and regenerate.

Ecological footprint represents the sum of all ecological services that people 'demand' from a certain area. It includes biologically productive areas (or bio capacity) needed for crops, grassland, residential areas, fishing and forest areas. Data on ecological footprint warn us that humanity lives beyond the capacity of the planet. The natural resources of our planet are plants, animals, soil, water, atmosphere and even the people themselves. We all together make the part of ecosystem of our planet, which means that if there is a biodiversity crisis, our health and livelihoods will also be in danger.

EP: What would be the main WWF's observation when it comes to Serbia? We know that the amount



of water in river basins has declined, what other data can you share with us?

Duška Dimović: In Serbia, the risk of natural resources was significantly greater than the risk of technological accidents, according to the data of the International Database on Disasters (EM-DAT). Natural disasters accounted for 62 percent in the total number of disasters. The floods dominate among natural disasters with 55 percent of the total number. Most models for the future predict greater frequency of extreme climate conditions such as floods, landslides, fires, droughts, etc. The effects of natural disasters are significantly enhanced by proportionally





bad economic situation in the country. Also, this risk was recognised at political levels, and thus the improvement of prevention systems, defence against disasters and mitigation of its consequences have been recognised by many national governments and international organisations as a priority. According to the research of climatologists, Serbia is in the group of countries that will be very exposed to climate change in the near future. The consequences are already visible, we have frequent floods, droughts, water regimes are perturbed. It is difficult to talk about concrete changes in ecosystems, since we do not have developed monitoring system (biomonitoring) at the national level, but it is obvious that drying of the forests is more and more present, as well as the changes in distribution of certain species, invasive species that are spread due to global warming that cause damage in agriculture and forestry, rapid changes in some natural habitats, primarily in high mountains and those related to water.

EP: In your opinion, what would be the necessary measures for preserving plant and animal species despite climate scenarios which envisage a rise in temperature?

Duška Dimović: The measures for emission reductions are equally important as the adaptation measures to climate change. The adaptation to climate change in terms of plant and animal species' protection as well as the protection of their habitats means focusing on the most vulnerable habitats and species as well as on those ecosystems which provide us with services which we depend on, such as water supply, water treatment, mitigation of floods consequences,

mitigation of extreme weather conditions and alike. Reduction of gas emissions which increase the effect of greenhouse gases, saving the electricity and the use of environmentally friendly solutions for the electricity production are of critical importance. Serbia has a great potential for energy savings and the improvement of energy efficiency. It is also necessary to switch to cleaner, renewable energy sources, such as geothermal energy, biomass, wind, sun and water but primarily in a sustainable way. Mitigation of climate change can be effective only with the strong cooperation of all sectors. We have a week tradition of joint planning and decision-making, but we must rapidly work on it. Water as a resource is certainly the centre of attention when we talk about the climate change, but also water management is very complex due to the interests of many sectors. We have to improve our relationship with water and natural water habitats significantly, because this is not important only for nature but also for people that is for energetics, agriculture, industry and all other sectors. Together with its partners, WWF has prepared the study 'Assessment of Vulnerability to Climate Change' in which we analysed five sectors in detail: water management, public health, agriculture, energetics and biodiversity. In each of them, significant exposure and vulnerability to climate change has been identified as well as the possibility of the development of adaptation system. It is necessary to pay great attention to the protection of biodiversity and ecosystems that are of great importance in adaptation to climate change and thus by preserving the nature we protect ourselves.

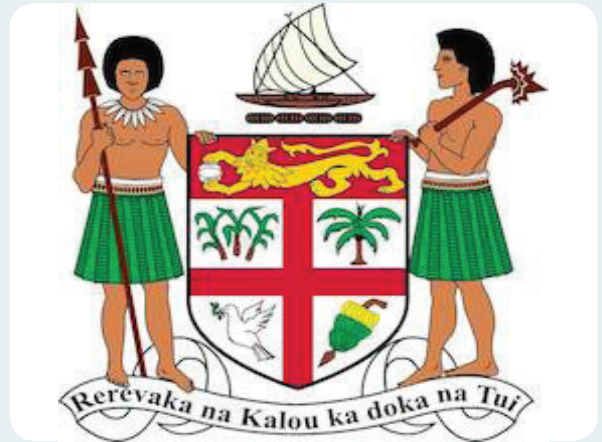
Intervju vodila: Vesna Vukajlović





FIJI LAUNCHES NATIONAL COMPETITION FOR COP23 LOGO

The Fijian Government has called on all Fijians to submit design ideas for the logo that will represent the Fijian Presidency at COP 23 – the United Nations negotiations on climate change. The winning submission will be used as a basis for designing the logo that will Fiji will carry to the upcoming negotiations, which will be held in Bonn, Germany in November 2017.



The national competition will run from 4 – 24 February. All Fijians are encouraged to submit their best ideas and help Fiji develop a logo that encapsulates not only Fiji's place in the world, but the values and the things that the Fijian people hold dear.

The winning entry will be awarded a paid trip for two anywhere on the Fiji Airways network.

"Fiji needs the creativity and ingenuity of the Fijian people to make sure our Presidency of COP 23 is as successful as possible. So we are asking every Fijian, including our students, our young people and our professional artists, to submit design ideas so that we can produce a logo that truly symbolizes who we are as a country and what we stand for as a people," said Prime Minister Voreqe Bainimarama.

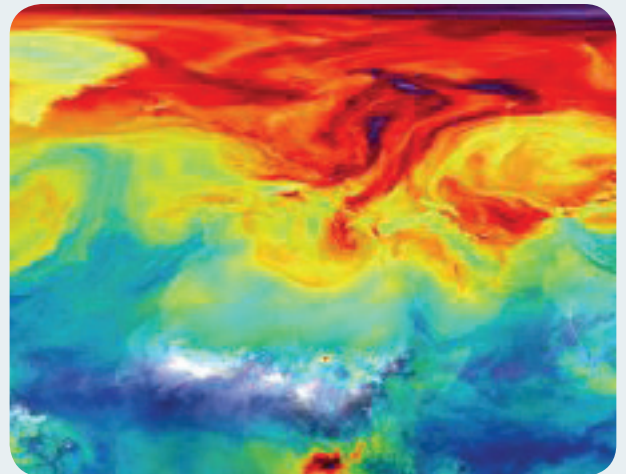
All submissions must comply with specific guidelines that will be advertised in the Fiji Sun as of 4 February 2017. Information on how to submit design proposals will also be advertised in the Fiji Sun.

Source: fiji.gov.fj



THE LAST TIME EARTH WAS THIS HOT WAS 125,000 YEARS AGO

Proving once more that climate change is a runaway problem, scientists just revealed that the earth is the hottest it's been in 125,000 years. The last time global temperatures were this high, sea levels completely covered the land on which New Orleans currently sits. According to a new report in Science Magazine, today's ocean surface temperatures are comparable to those dating back 125,000 years. Jeremy Hoffman and colleagues at Oregon State University studied chemical clues in 104 seafloor sediment samples taken from areas around the world. By comparing the samples, they were able to create a picture of what the climate actually looked like 125,000 years ago.



Scientists regularly look to the last interglacial period to model how Earth's rising temperature will affect sea levels. Sea levels rose 20 to 30 feet above their current levels, and the average global sea surface temperatures at that time were almost identical to the 1995 to 2014 average temperatures, according to the researchers. According to Science News, this new information will help scientists improve predictions about how our oceans will respond to climate change.

Source: inhabitat.com



PARIS BOOSTS CYCLING INFRASTRUCTURE, NAMES 2017 'YEAR OF THE BIKE'

Paris plans a major boost to its cycling infrastructure and will ban cars from outside the Louvre museum as it steps up its fight against traffic pollution, the mayor said on Sunday. Socialist mayor Anne Hidalgo announced a new two-way 4 kilometre bike lane to run along the Rue de Rivoli, a major east-west thoroughfare and one of the city's most famous streets, and to connect the Place de la Bastille and Place de la Concorde.

She also said Paris will accelerate a plan to double the surface of its cycling lanes by 2020.

"Climate is the number one priority. Less cars means less pollution. 2017 will be the year of the bicycle," Hidalgo said in a statement.

The noisy and polluted Rue de Rivoli, which links major landmarks like the Louvre Museum, Palais Royal and the historic Marais area, would become an area for walking, cycling and shopping, where the space for cars will be halved.

The city will also ban private cars from the historical Place du Carrousel du Louvre, which cuts through the Tuileries park and the square in front of the Louvre, the world's most visited museum with about 9 million visitors per year.

Paris this year plans to pedestrianise most of the Marais by limiting car traffic there to residents, public transport and local businesses.

From 2018, Paris will also start operating a new "tram-bus" along the right bank of the Seine to boost public transport infrastructure as part of its bid for the 2024 Olympics.

Deputy mayor in charge of transport Christophe Najdovski said cities like Bordeaux and Lyon are way ahead of Paris in terms of reopening access to their riverbanks and banning polluting diesel cars from the city centre, as Tokyo has done.

"We have a lot of work left to do, as is obvious from the numerous days with peak pollution levels at the end of 2016," Najdovski said.

In September, Paris turned a stretch of highway on the right bank of the river Seine into a pedestrian zone in an attempt to reduce pollution despite fierce protests from drivers and the conservative opposition.

In the past 15 years, private car traffic in Paris has fallen by about 30 percent as the city introduced its popular Velib bicycle sharing scheme and its Autolib electric vehicle sharing scheme, city authorities said.



Source: reuters.com

Photo: REUTERS/Charles Platiau



COP23 WILL BE HELD IN BONN, GERMANY

The 2017 UN Climate Change Conference will take place from 6 to 17 November at the World Conference Centre in Bonn, Germany, the seat of the Climate Change Secretariat. The Conference will be convened under the Presidency of Fiji.

The Conference will comprise sessions of:

The Conference of the Parties (COP 23);

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP 13);

The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA 1.2);

The Subsidiary Body for Implementation (SBI 47);

The Subsidiary Body for Scientific and Technological Advice (SBSTA 47);

The Ad Hoc Working Group on the Paris Agreement (APA).

The secretariat, as host of the Conference, is working very closely with the Government of Germany, the State of North-Rhine Westphalia and the City of Bonn to make all the necessary arrangements.



United Nations
Framework Convention on
Climate Change

Source: unfccc.int



SUSTAINABLE DEVELOPMENT as a Victory of Good Ideas!

In the eve of marking four decades of existence of its Šabac pharmaceutical factory, the leading Serbian pharmaceutical company Hemofarm constructed a state-of-the-art waste water treatment plant amounting to EUR 1.2 million in the town on the Sava River. Thanks to this investment, production process waste waters fully meet the environmental standards of highly developed countries in the world. Additionally, it is an important aspect of development of the local community, especially after the heavy floods that have struck Serbia and the region due to climate changes in recent years.

More than a million and a half euros were spent in the waste water treatment plants in two factories - Šabac and Vršac, only during 2015, and Natalija Popović, the Director of Strategy and Sustainable Development of Hemofarm, explains that business in accordance with sustainability principles is a strategic commitment of this company.

- Any decision that is made includes precisely sustainability elements - economic, environmental and social aspect. The intersection of these three sets is actually sustainable development. For example, we have switched to recycled from ordinary cardboard and thus saved money for the company. But, at the same time, we have also contributed to the reduction of deforestation, which is an ecological factor. When we add to it that we have switched to local suppliers, we have thus also improved social-economic parameters of the local community. Savings made in Hemofarm equal two-month consumption of electricity and water of all its factories by using recycled cardboard for packaging. What is more important is the fact that during the four-year sustainability reporting, these important principles have found their place in practice and made Hemofarm employees as well as numerous business partners of the company aware thereof.

- I am most proud of the fact that 'sustainable development' has become a way of thinking of almost all employees in Hemofarm. The way of thinking is as the first domino in a row, a stimulus is required only for the first one. The leading position in the local market as well as the largest exporter of pharmaceuticals from Serbia are almost equally binding as the A plus level, which we achieved last year for our sustainability reporting, as one of two companies in Serbia - Popović pointed out.

Hemofarm's sustainability path is also characterized by the follow-up



Dušan Stojaković and Natalija Popović

of the trend of reduced number of injuries at work, which is the best confirmation that the company does not only care about work, but it also cares about the environment, community, and future generations. During the previous year, a new production output record was broken, and a record-breaking low consumption of electricity and gas per unit of finished product was achieved at the same time. These data testify about the extent to which the company is committed to energy efficiency. It is also confirmed by independent studies of international institutions, which assessed that Hemofarm's plants are among 20 percent most energy-efficient global pharmaceutical companies with similar dimensions and parameters.

- Šabac is among the top 10 percent, and Vršac is among the top 20 percent most energy-efficient global pharmaceutical companies. We use high level energy-efficient equipment, energy-saving devices such as LED light bulbs, fuses, etc. Our pipeline system is fully jacketed and there is no loss of energy. The operation of cooling system is computerized. There are artesian wells within Vršac complex and Šabac factory, and collected water is used as technical water - Popović says.

Hemofarm shows great care about ecology, trying to minimize the impact of climate changes in Serbia, and it also shows responsibility to socially vulnerable groups and healthcare system. In cooperation with the Ministry of Health, it participates in the campaign for increasing the number of organ donors in Serbia. Hemofarm Foundation, which has existed for 23 years, started from the local level and expanded to the national level in recent years.

- Our sustainable development is practically the victory of good ideas - Natalija Popovic says and adds that Hemofarm will continue to strive to be an example of changes for a better future, which we all aspire to.

ZAJEDNO
UNAPREĐUJEMO
KVALITET
ŽIVOTA



Hemofarm
naša zdrava grupa



ABB STATE-OF-THE-ART MICROGRID to Power African Hub of the International Committee of the Red Cross

ABB's very own products and services are already playing a considerable role in reducing carbon emissions. The work we do every day, helps energy-intensive industries cut costs. New game-changing technologies take hold. The buildings we live and work in run smartly. Electricity, especially from renewable sources, gets to where it's needed most.

The work we do on a state-of-the-art microgrid in Nairobi, Kenya, to name just one example, will help the International Committee of the Red Cross carry on with its essential mission.

ABB will power the largest logistics hub of the International Committee of the Red Cross (ICRC) through a state-of-the-art microgrid, delivering reliable power for the first time in a region exposed to frequent outages and power quality issues.

Located in the Kenyan capital, Nairobi, the global logistics center for the ICRC employs 170 employees delivering food and other essential items like medicines and relief supplies across the African continent.

ABB will build a microgrid for the ICRC that runs on solar energy and diesel to maximize the use of renewable energy and ensure a reliable power supply. It is scheduled for completion by the middle of 2017. The agreement reflects an ICRC initiative launched in 2014 for greater technology collaboration with the private sector.

"We are delighted to partner and support the humanitarian work of the International Committee of the Red Cross," said



ABB CEO Ulrich Spiesshofer. "Microgrids have enormous potential in Africa, where more than 600 million people live without access to electricity. Reliable access to electricity is essential to speed up economic development."

Microgrids are used to integrate distributed energy resources and loads that can be operated in a controlled, coordinated way whether they are connected to the main power grid or to provide power independently, ensuring utility-grade power quality and grid stability.

"Reliable power is essential for our staff to continue their life-saving work uninterrupted in the field," said ICRC President Peter Maurer. "In addition, the ABB microgrid solution is in line with the ICRC's goal to use environmentally friendly technologies. Solutions like this are proof that cooperation between the corporate and humanitarian sectors is not only possible, but imperative. We are happy and proud to count ABB as a member of our corporate support group."

ABB is a pioneer in microgrid technology with a track record of more than 30 global installations that are operated commercially for a diverse range of applications such as remote communities, islanded electrical grids, utility grid support and research and industrial campuses.

ABB has been a member of the ICRC corporate support group for the past decade, contributing to water and habitat programs for victims of conflict in the Democratic Republic of Congo and Iraq. ABB also helps train ICRC engineers.

Source: abb.com



THE GGE INTEGRATED MODEL of Energy Services for an Efficient and Clean Energy Future

GGE is a leading Slovenian energy services company (ESCO) that through an integrated model develops, implements and finances energy efficiency measures in Slovenia, Serbia, Croatia, Montenegro and Bulgaria. Through an innovative approach and specialized solutions, GGE helps the users of its services achieve considerable improvements in their use of energy. GGE helps clients reduce their energy expenses, also ensuring that the solutions implemented are clean, sustainable and contribute to reducing greenhouse gas emissions and help the fight against climate change.

GGE is the only ESCO company on the Serbian market that also provides financing for energy efficiency projects.

The use of biomass in the industrial sector, the Eltid tannery project in Serbia



INITIAL STATE: the Eltid tannery in Pančevo needed a more energy efficient solution to meet the requirements of its growing production.

THE SOLUTION: GGE's team of experts chose to install two highly efficient wood-chip boilers.

TECHNICAL SPECIFICATIONS: 550kW boilers, completely automated storage, dosing of biomass, ash disposal and cleaning of smoke pipes.

SAVINGS AND IMPACT: CO2 emissions will be reduced by 1,226 tons on a yearly basis, which is what the facility would emit if it used heavy oil instead of biomass as an energy source.

COOPERATION MODEL: Energy performance contracting for a period of 5 years.

The sea in the service of clean energy production – the Grand Hotel Bernardin project in Slovenia



INITIAL STATE: the Grand Hotel Bernardin was faced with high energy expenses and obsolete heating and cooling systems. The client hired GGE to find an energy efficient and environmentally friendly solution that would also reduce expenses. The hotel had to operate without interruptions during the renovations.

THE SOLUTION: GGE chose to replace the worn out equipment with a pump that exploits the energy of the sea, using it as a heat source.

TECHNICAL SPECIFICATIONS: a 1 MW heat pump was installed, with a seawater pumping station and a heat/cold pipe line. No chemicals or other additives were used in the construction process and the water returns to the sea in its original state.

SAVINGS AND IMPACT: The new solution has ensured 37% savings on heating and cooling costs, and has reduced CO2 emissions by 500 tons a year.

COOPERATION MODEL: Energy supply contracting for a period of 5 years.

gge Vaš Partner za Energetsku Efikasnost

Finansiramo projekte uštede energije.



KFW HAS BEEN IMPLEMENTING THE PROTECTION of Climate Conditions and Environmental Improvement since 1984

The German Development Bank (KfW) is financially helping Serbia. The investments of KfW bank have reached the level of around 1,711 billion euros, including 887 million euros for the energy sector. These include the production of electricity, coal mines and district heating. Then 251 million euros has been allocated for water supply and 573 million euros for the financial sector. Among first major projects was the rehabilitation of hydro power plants 'Bajina Bašta' and 'Zvornik' which was financed by the loans in the total amount of 100 million euros. In the field of production of thermal energy KfW contributes in financing the introduction of the system for controlling the quality of the coal in the largest mining field in Serbia, Kolubara. This is being implemented in cooperation with the European Bank for Reconstruction and Development (EBRD). This new system will significantly affect the reduction of CO2 emission. In addition to these projects which deal with the production of electricity, KfW has also been supporting the projects which deal with energy consumption by providing financing for measures of energy efficiency in public buildings since 2014. KfW has also approved to the Serbian banks the credit lines for refinancing the projects which deal with energy efficiency and renewable energy sources. The financing of the first EPS's (Elektroprivreda Srbije) wind farm is among the most important future projects. Energetski portal has the honour to talk to Mr. Arne Gooss, General Manager of the KfW bank in Serbia about all these topics.

Energy portal: KfW bank launched the line 'Green bonds' in April 2015 and the plan is to invest around a billion euros in the projects in the field of energy efficiency, sustainable transport, renewable energy sources and also in the projects dedicated to waste management in the following 3 to 4 years. What are the results of this initiative which in less than 2 years?

Arne Gos: The liquidity and the highest quality of the credit line are the factors of success of KfW bonds. As one of the world's greatest financiers of climate protection, KfW has a holistic approach to sustainability. This also includes work on the capital market. 'Green Bonds – made by KfW' make a significant contribution to the promotion and financing of climate and environmental protection measures which are based on the capital market. KfW issued green bonds in the amount of around 1.5 billion of US dollars in November 2016. KfW is also the first participant of the capital market who entered the segment of green bonds,



Arne Gos

and not only as an issuer but also as an investor.

Energy portal: Climate change is forcing people to mitigation, the change of plan in the business sector, since they change decisions in the last moment and sometimes it results in considerable losses. In what way does the KfW use these facts? How do you create new products and with which institutions do you cooperate with in Europe and Serbia? Do you conduct the research for each country separately?

Arne Gos: Our goal is to improve the living conditions of people in developing countries and emerging markets and also to improve the economy which supports the environmental protection. The business area of KfW Development Bank and its daughter company DEG which promote the climate and environmental protection, the expansion of public infrastructure and private economic initiative as the drivers of sustainable economy and social progress. KfW has been providing support to Federal German Government in achieving goals in development policies and international cooperation for 50 years. Policy



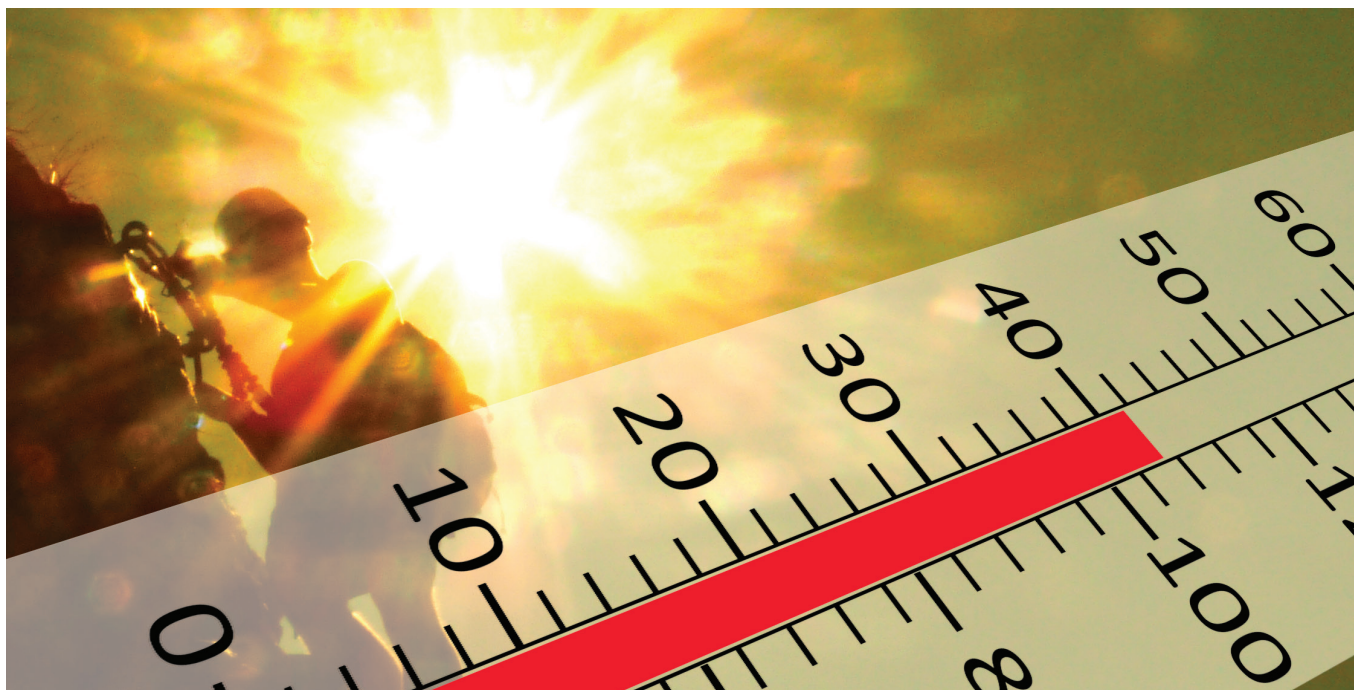
and strategic guidelines of Federal Government therefore serve as the basis for the scope of activities of German Development Bank. In German financial cooperation, KfW acts as an experienced bank and the institution of development policy. It improves and supports programs and projects on behalf of Federal Government – from the initial idea, through execution, to subsequent assessment of the results. Therefore, KfW also applies the experiences which we gained in improving domestic businesses. The projects have been established in order to motivate future activities, by providing an incentive in the participation of private sector and thus laying the foundation for wider process of transformation.

Energy portal: One of the priorities of KfW bank is to help Serbia to implement targets agreed with the EU within the energy sector in the areas of water supply and waste management. As a proof of that KfW funds projects in the field of renewable energy sources, such as production of electricity from solar energy, wind and hydro potential. From 2005 to 2015 the KfW bank had several large projects in Serbia “European Fund for Serbia” in cooperation with ProCredit Bank, then “Emergency Aid Programme and united energy financial loan” in 2008. During 2010 you realized the project “Rehabilitation of public lighting in Novi Sad, Nis and Belgrade”, and in 2015 you implemented the project “Water Supply Phase I and II”. Do you cooperate with German banks in all these cases? What is the financial value of stated activities and what are your plans in the future in addition to all these?

KfW

Arne Gos: KfW Development Bank supports Serbia on behalf of the BMZ (Federal Ministry of Economic Cooperation and Development). We want to achieve an agreed-upon standard in the energy sector, water supply and water purification, waste management and environmental protection. KfW also supports sustainable economic development in Serbia by offering credit lines for small and medium-sized enterprises (chamber of Commerce and Industry of Serbia), and supports municipalities through a local banking system. Since the establishment of development cooperation in Serbia in 2000, KfW on behalf of Federal Government has approved projects worth 1.7 billion euros. The KfW Bank currently operates in the implementation of projects in more than 25 towns and their utilities. We cooperate with companies such as EPS and EMS – state-owned companies for the supply of electricity. Through the cooperation with Serbian partner banks we have loan for both small and medium-sized companies and for urban municipalities loans are available throughout the country (for example, to improve energy efficiency in companies and public infrastructure). Initially, due to the then acute needs, KfW financed, on behalf of the German Federal Government, a huge number of assistance programmes – import of electricity, in order to ensure the supply, spare parts for quick maintenance of power plants and district heating system in major cities.





Eventually, projects have become more sophisticated. District heating system has been expanded and now it covers also towns; the benefits of efficiency and environmental impact are becoming increasingly important. The promotion of renewable energy sources has reached the limelight. In new projects, KfW mostly relies on hydro power plants, but also on biomass and wind power plants. The new project of energy efficiency improvement in schools, which is based on the project of World Bank will contribute to reducing energy demand. The same can be said for credit lines which will allow small and medium companies to invest in energy efficiency through the banking sector of Serbia.

More than 80 percent of the approved funds were disbursed by the end of 2016. Around 20 percent of funds were provided as the first aid, while the remaining parts were long-term concessional loans. The future KfW projects, agreed by both Governments, will be focused on three key points of development cooperation in Serbia: the improvement of sustainable development, as well as sustainable infrastructure (energy/energy efficiency, water/waste water/ solid waste). All these key points contribute to the 'Initiative for Growth and Development', which was launched by both Governments at the beginning of 2015. Our future projects and activities will be focused on this initiative, and currently together with our Serbian partners, we are exploring the possibilities how to increase our engagement in the field of energy supply, especially in the sector of renewable energy sources. We are also exploring the possibilities of green credit lines which would be granted through local commercial banks, in order to promote the investments in climate protection conditions, energy efficiency sector and thus in environmental protection.

Energy portal: KfW Bank was established in 1948. It is German Development Bank and during its 70-year existence it has been supporting the energy and industry sectors, both in Germany and also around the world. When did you make the decision to establish the sector which deals with the energy issues, climate change and environmental protection issues?

Arne Gos: Climate and environmental protection is the tradition of KfW bank. We are the first German development institution which financed environmental protection measures even in 1950s. The bank has had its own environmental improvement and it has established environmental and climate protection as the key point in all areas of improvement since 1984. The first targeted investments in energy efficiency and renewable energy sources were in 1990. Based on this experience, the initiative for energy efficient reconstruction of homes 'Residential Development, Environment, Development' was launched in 2006 on behalf of Federal Government. Therefore, KfW supports projects which limit negative effects of climate change. Projects for climate and environmental protection, as well as the ones for adaptation to climate change are often connected with development projects. They are fully in accordance with the agreements signed by the Governments which participated in the United Nations Conference on the Environmental protection and Development in Rio de Janeiro in 1992. For example, the business area of KfW Development Bank provided 975 million of euros, on behalf of the Federal Government, for the projects with the goal of adaptation to climate change in the developing countries and emerging markets only in 2014.

Interview by: Vesna Vukajlović



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